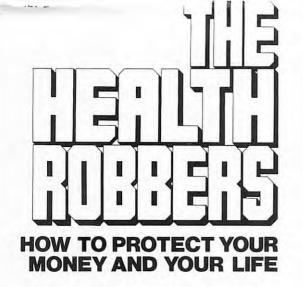
NEW REVISED EDITION

HOW TO PROTECT YOUR MONEY AND YOUR LIFE

Edited by: Stephen Barrett, M.D.

Foreword by: Ann Landers



Medical science has never had more to offer than it does today. But more and more people are turning to quackery.

In this revised and expanded edition, THE HEALTH ROBBERS reveals the truth about vitamins, food additives, occult healers, medical impostors, "holistic" medicine, exploiters of cancer and arthritis victims, and others. It shows how you can tell if someone has a legitimate treatment or is simply taking your money, whether out of misguided belief or actual intent to defraud. It also explains how quackery is being fought, why it persists, and how you can get the best possible health care from your doctor.

THE HEALTH ROBBERS is a critically important book that will enable you to protect your money—and possibly, save your life.



Stephen Barrett, M.D., a practicing psychiatrist, is the nation's most vigorous opponent of health quackery. Since 1970, he has been Board Chairman of the Lehigh Valley Committee Against Health Fraud. Inc., a member organization of Consumer Federation of America, An expert in medical communications, he serves as medical consultant to WFMZ-TV, Allentown, Pennsylvania. He is coeditor of The Tooth Robbers: A Pro-Fluoridation Handbook and co-author of the college textbook Consumer Health-A Guide to Intelligent Decisions. He has been a member of the Committee on Quackery of the Pennsylvania Medical Society and the Committee on Health Fraud of the Pennsylvania Health Council. He is a scientific advisor to the American Council on Science and Health and a scientific consultant to the Committee for the Scientific Investigation of Claims of the Paranormal.

"This is a slashing attack on medical quackery, health fraud and every sort of fad, lobby and gadget that in effect endangers trusting American consumers. Each chapter is written by an acknowledged expert. Their attacks are razor-sharp, assertive, largely well documented."

-PUBLISHERS WEEKLY

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-FREDRICK J. STARE, M.D. Professor of Nutrition, Harvard University

"This book is important for all American consumers. Health care cost containment is a top priority for our country. Consumers must help, and an excellent start is for you to recognize when your dollars are being burned-up in useless health care."

-VIRGINIA KNAUER

Chairman, Council for the Advancement of Consumer Policy; and former White House Special Assistant to the President for Consumer Affairs.

89313-023-0

GEORGE F. STICKLEY COMPANY PHILADELPHIA, PA 19106

THE HEALTH ROBBERS

How to Protect Your Money and Your Life

SECOND EDITION

Edited by

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc.



GEORGE F. STICKLEY COMPANY Publishers

210 W. Washington Square / Philadelphia, Pa. 19106

The Health Robbers is a special publication of the Lehigh Valley Committee Against Health Fraud, Inc., an independent organization which was formed in 1969 to combat deception in the field of health. The purposes of the Committee are:

- 1) To investigate false, deceptive or exaggerated health claims.
- 2) To conduct a vigorous campaign of public education.
- 3) To assist appropriate government and consumer-oriented agencies.
- 4) To bring problems to the attention of lawmakers.

The Lehigh Valley Committee Against Health Fraud is a member organization of the Consumer Federation of America. Since 1970, the Committee has been chartered under the laws of the Commonwealth of Pennsylvania as a not-for-profit corporation. Inquiries about Committee activities may be addressed to P. O. Box 1602, Allentown, Pa. 18105.

First Printing September 1980

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I.S.B.N. #89313-023-0

Library of Congress Catalog Card #80-83198

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Published in the United States by the George F. Stickley Company, Philadelphia.

Introduction

Day after day, we hear about our health. Advertisements bombard us. News is sensational. Health books abound.

Unfortunately, much of this information is false. Health science has never had more to offer than it does today. Yet trust in doctors has fallen . . . and quackery is at an all-time high.

Some exploiters merely want our money. Others, perhaps more confused than crooked, seek converts to their ignorance.

How can we tell experts from pretenders? How can we get reliable information? How can we communicate to get better health care from our doctors?

Is our government working or failing to protect us from being cheated?

By exploring these questions, this book should help both your health and your pocketbook.

-THE LEHIGH VALLEY COMMITTEE AGAINST HEALTH FRAUD, INC.

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Foreword

Barnum was right. There's a sucker born every minute. And two to take him. How do I know? Because the victims write to me. And they have been writing to me every day for over 20 years.

Ann Landers receives approximately 7,000 letters a week from readers who represent every conceivable socio-economic group. They live on suburban estates and in the city slums. My correspondents are from 6 to 110 years of age. They are double-dome intellectuals and borderline morons. Almost half of the letters come from men.

Every bag of mail contains at least 150 inquiries that drive me up the wall. "How can they be so stupid?" I ask myself. And then I answer the question. It's not merely stupidity. It's desperation and wishful thinking that wipes out all reason and common sense. I become furious at the exploitation of these good people whose only crime is ignorance and vulnerability.

Here are some examples that crossed my desk just this week:

"Dear Ann: Is it true that musk oil will turn a man on? My husband is 46 years old and sexually dead as a doornail. I've seen this musk oil advertised, but \$11 is a lot of money for a little bottle. If you say it will help, I'll buy it."

"Dear Ann: I'm a career girl, 28 years old, and haven't had more than three real dates in my life. The reason is because I am flat-chested. I mean I don't have any bust at all. All my life I've wanted to have nice round bosoms. Please tell me if this cream will help. (Advertisement enclosed.) As you can see, the 'before' and 'after' pictures are very convincing. What do you say?"

"Dear Ann: Is it true that cooking in aluminum will cause cancer? A man came to the door yesterday selling cookware. He scared the life out of me. His utensils cost \$450 for the complete set. If what he says is true, about cancer, I mean, it sure would be worth it. But I hate to throw out these perfectly good pots and pans I've used for 10 years."

One after another the letters come—from the "exotic dancer" who wants to grow "georgeous nails in 20 days"—from the overweight housewife who will do *anything* to get thin except quit eating the things she

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loves. Then there are the females with bags under their eyes and extra chins who are sure they will look ten years younger if they use the enriched cream (secret formula) for thirty days. The trouble is—it's awfully expensive. "But it would be well worth the money if it works," writes Mrs. W. from Sheboygan. "Cheaper than a face lift. And no pain."

When men write and ask if the pomade and treatments guaranteed to grow hair will help, I often reply, "Yes. It will help the manufacturer and the man who sells it. They will get rich. As for you, it will help flatten your wallet, but it won't do anything for your bald head."

The letters from teenagers are especially pathetic. "My skin is such a mess of pimples and blackheads no girl would go out with me, so I don't even ask. Please don't suggest a doctor. I can't afford one. This soap and cream combination promises results within ten days. What do you think, Ann? And while I'm at it, Ann, maybe you can tell me if this mail-order speech course will help my brother. He stutters. His grades are awful. He's not dumb, he's just ashamed to speak up in class."

"Dear Ann: Our sex life is blah after 15 years. My husband wants to try a sex clinic, but some friends of ours went and you wouldn't believe the things they were asked to do. I don't go for that far-out stuff like changing partners. Frankly, I'm scared. What do you think?"

The saddest letters of all come from relatives of the desperately ill, those who are dying of cancer, or kidney disease. "Our family doctor said there was nothing more he could do, so we took mom to this wonderful chiropractor. She seems a little stronger today. Do you think, Ann, that we should have brought her to the chiropractor from the beginning and not wasted all that time and money on a specialist with a fancy diploma from Harvard hanging on his office wall?"

Every letter gets a personal reply in the mail, if there's a name and an address. I urge my readers to beware of quacks and phonies. I warn them against the charlatans and fakers. More often than I care to admit, I have received in return a seething reply: "How dare you take away our hope! I'll bet you are on the payroll of the American Medical Association. The medical doctor didn't do anything but send us big bills. Jesus Christ is the greatest healer of them all. Now that we have put our child in His hands, we know everything is going to be all right."

How can the public be protected against phonies, quacks, and unscrupulous money-grubbers who prey on the insecure, the frightened, and the sick? The answer is education. And that is what this book is all about.

Each chapter is written by a highly respected authority in his or her

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field. In the pages that follow, you will read the truth about a wide variety of food fads, worthless gadgets, pill pushers, and organized "health plans" designed to separate fools from their money. Ignorance is *NOT* bliss—and it never will be. Only the truth can set you free.

Pon Landers

Acknowledgments

Chapter 6 is adapted from *The Medical Impostor*, a chapter in *Medical Licensure and Discipline in the United States*, written by Robert Derbyshire, M.D., and published by the Johns Hopkins University Press. It appears in this book with the kind permission of the author and publisher.

Portions of Chapter 14 are adapted from *Nutrition for Athletes* by Ellington Darden, Ph.D., and appear with the kind permission of the Anna Publishing Company, Winter Park, Florida.

Chapter 25 is adapted from *Mental Health Care*, a chapter in *Consumer Health—A Guide to Intelligent Decisions*, 2nd edition, 1980, by Harold J. Cornacchia, Ed.D., and Stephen Barrett, M.D. It appears in this book with the kind permission of the C.V. Mosby Company, St. Louis.

The Committee also wishes to thank Gilda Knight, Joseph Botta, Thomas H. Jukes, Ph.D., Ralpha Senderowitz, William T. Jarvis, Ph.D., and Jacob Nevyas, Ph.D., for their many helpful suggestions during the preparation of the manuscript.

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•

What the Surgeon General Didn't Tell Us

If you repeat a lie often enough—that smoking is sexy, healthy and "cool"—lots of people will believe it. The main trick is to get them hooked while they are young.

BY

ALAN BLUM, M.D. President DOC (Doctors Ought to Care) Would you go into a supermarket to buy a loaf of bread that was advertised as having "only 6 mg. of poison"? Or a can of soup that claimed to be "lowest in carcinogens"? American Brands suggests that 17 packs of Carlton are equal in tar (poison) to just one pack of Kent. Does that mean you can smoke 17 packs a day without an increased risk of disease? The biggest myth about cigarettes today is that certain brands are safer. Safer than what? Fresh air? Smoking a pack of cigarettes means 200 inhalations of carbon monoxide, cyanide and arsenic. A 30year-old who began smoking a pack a day during his mid-teens will have inhaled "only" one million breaths of poison. When smokers switch to a brand that is lower in tar, they usually have to smoke more to maintain their addictive level of nicotine.

The case against cigarette smoking, then, does not rest solely on the risk of cancer, but on a whole spectrum of serious disorders. "Only" one out of six smokers will develop lung cancer (the odds of Russian Roulette), but all six will have some form of disability—lost workdays because of bronchitis, an inability to run around the block or participate in sports, an ulcer, gum disease or a heart attack. Most cigarette-related illnesses are not diseases of old people. Smokers just look old in their hospital beds.

Lung cancer, for several years the leading cause of cancer deaths in men, will soon overtake breast cancer as the leading cause of cancer death in women. Cigarette smokers also have significantly higher rates of cancer of the mouth, throat, vocal cords, esophagus, pancreas, kidney and bladder. Switching to a pipe or cigar will not lower the risk for these cancers.

Women who smoke during pregnancy are more likely than nonsmokers to have miscarriages and to give birth to children with physical or mental defects. Women who smoke and use birth control pills have increased risks of death from heart attacks and strokes. Smoking also increases the risk of ulcers in both men and women.

Close to one-fifth of our country's annual health bill is for treating cigarette-related diseases!

Cultivation of Smokers

Those who regard cigarette smoking as an inalienable right may find it hard to believe that it is not even a time-honored tradition. Although tobacco has been used for thousands of years, cigarettes (the only tobacco products whose smoke is inhaled) were not mass-produced until about a century ago. In the early 1900's, per capita consumption was only 25 per year. Currently, about 4,000 cigarettes are being smoked each year for every adult American.

In the 19th century, Robert Koch, a pioneer researcher on bacteria, suggested that spitting, such as that done by cigar smokers and tobacco chewers, spread tuberculosis. Laws against spitting were passed and tobacco companies shifted most of their production to cigarettes. However, even well into this century, cigarette smoking still hadn't caught on widely, especially among women. It took a deliberate campaign to make people equate smoking with romance, social success, sophistication— and even good health!

Throughout the 1930's and 1940's, children learned from the Sunday funnies that smoking Camels could give them "healthy nerves," "a flow of energy," "relief of fatigue" and "better digestion." Baseball heroes like Lou Gehrig and Joe DiMaggio were hired by the R.J. Reynolds Company to tell how "Athletes smoke as many as they please" and how Camels "don't get my wind." Even Santa Claus was portrayed as endorsing one or another brand. With cigarettes tucked into military K-rations and selling for 4¢ a pack, the cigarette industry created a whole generation of smokers who had to huff and puff to "walk a mile for a Camel."

In the early 1940's, medical reports that linked smoking to various diseases were effectively overwhelmed by more advertisements—not just in print but on every major radio and television program, including most prime time news broadcasts. The public was told that "More Doctors Smoke Camels Than Any Other Cigarette," that "Many Leading Nose and Throat Specialists Suggest . . . Change to Philip Morris," that "20,769 Physicians Say Luckies Are Less Irritating," that, according to 19,293 dentists, "Viceroys Can Never Stain Your Teeth!" and that L & M cigarettes were "Just What The Doctor Ordered." Some ads even appeared in medical journals.

In the 1950's and 1960's, to allay the anxiety of its customers, the tobacco industry came up with all sorts of "scientific breakthroughs," but above all the filter. Although not even admitting to a "cough in a carload," manufacturers began promoting "health protection." (Protection from illness by not smoking was never mentioned, however.) At least one filter was made partly out of asbestos: Kent's "Micronite" filter contained an unnamed material "so safe, so pure, it's used to filter the air in many hospitals." Today's leading brand, filtered Marlboro, is portrayed as a rugged man's smoke. As an unfiltered brand in the 1940's and early 1950's, it was a lady's choice—"Mild as May."

The "Controversy" Today

For many adults, cigarette smoking is one of life's great pleasures. Does it cause illness—even death? No one knows . . . If smoking does cause disease, why, after years of intensive research, has it not been shown *how* this occurs? And why has no ingredient as found in smoke been identified as the causal factor?

--from *The Cigarette Controversy*, a pamphlet of the Tobacco Institute

After evidence against smoking began to mount in the 1950's, the Tobacco Institute was set up by the cigarette industry "to foster public understanding of the smoking and health controversy." But it would seem from the pamphlet quoted above that cigarette manufacturers and their public relations teams do not read medical reports! Health scientists believe that smoking *is* responsible for 350,000 deaths in the United States *each year*—seven times the number of American lives lost during the entire Vietnam War.

According to the 1979 Surgeon General's Report on Smoking and Health—which based its conclusions on more than 30,000 research reports—coronary artery disease (not lung cancer) is the chief cause of higher death rates in cigarette smokers today. More than one-fourth of the 700,000 annual deaths from heart disease are attributable to smoking. Cigarette smoking is also believed to be responsible for approximately 7 out of 10 cases of chronic bronchitis and emphysema (an agonizing disease in which the lungs lose the ability to move air in and out). Coughing is directly related to the number of cigarettes smoked; and lung infections are more frequent among cigarette smokers than among nonsmokers. Even young children of smoking parents have higher rates of respiratory illness as a result of exposure to tobacco smoke at home.

How has the tobacco industry responded to the fact that cigarette smoking is our nation's current leading preventable cause of bad health and high medical costs? Two recent billboards at the entrance to a Miami expressway symbolize the answer. On the left was word from the American Heart Association: "We're Fighting for Your Life." To its right was a colorful message from R.J. Reynolds: "We Offer You More."

"We Offer More"-Thousands of Chemicals

Unlike foodstuffs, cigarettes are not required by law to carry labels listing their ingredients. "We are unable to divulge the particulars of the processing and flavoring of any R.J. Reynolds brand," wrote one T.K.

What the Surgeon General Didn't Tell Us

Cahill of the company's public relations office in response to a question about whether chemical additives are used in cigarettes. Other tobacco company workers have let on, however, that upwards of 1,500 chemicals are used in cigarette manufacture—including nitrates as preservatives and propylene glycol (the solvent used as antifreeze).

Menthol is another widely promoted chemical. It is an anesthetic. The reason some smokers find mentholated cigarettes "cooler" is that their throats are actually numbed.

What else will the smoker get (besides yellow teeth and bad breath)? Carbon monoxide, ammonia, formaldehyde and hydrogen cyanide are just four of the gases found in high dosage in cigarette smoke. In the long run, they may prove to be more harmful than either tar or nicotine.

Filter cigarettes, designed to remove the tar, get plugged up so that the poisonous gases are not diluted with air. One brand has a plastic filter that may even emit polyvinyl chloride fumes.

A cigar, pipe or hand-rolled cigarette will go out when unattended. But commercially manufactured cigarettes contain additives which keep them burning. In the United States each year, smoking is responsible for 70,000 fires, 1,800 gruesome deaths and 4,000 cases of serious burns. A recent NBC "Prime Time Saturday" program discussed deaths due to fires that begin in furniture. The reporters clearly blamed the furniture makers, not the smoldering cigarettes that start the fires. Viewers were not told that cigarettes need not smolder. Continuous burning makes for higher cigarette sales.

Many smokers point out proudly that they have switched to a "low-tar" brand. But what is tar? A burning cigarette gives off about 4,000 solid substances and gases. The solid chemicals are called "tar." Included are at least 30 chemicals that are known to cause cancer plus the addictive chemical, nicotine. Tar, then, really means *poison*.

Advertising Today

Why, then, do people smoke? A large part of the answer stares us in the face from newspapers, magazines and billboards everywhere. If you repeat a lie often enough—that smoking is sexy, healthy and "cool"—lots of people will believe it. The main trick is to get them hooked while they are young.

Almost half of all billboard advertising is for cigarettes. Every child grows up seeing thousands of these larger-than-life commercials—with the Surgeon General's warning almost invisible. Fashion models (such as Virginia Slims' Cheryl Tiegs) who appear in cosmetic ads in magazines for teenagers are also observed by these youngsters in cigarette ads in the magazines of their parents and older sisters. Nor do teenage boys limit themselves to reading Boys' Life. Their favorites are Playboy and Sports Illustrated, 25–40 percent of whose ads are for cigarettes. Rolling Stone, another teenage favorite, recently featured a cover photograph of actor Richard Gere smoking a cigarette—just like the Marlboro man on the back cover. To adolescents who follow these role models, smoking is anything but a health issue. So-called "peer pressure" to smoke does not exist in a vacuum. It can be generated by Madison Avenue.

Although banned by law from *direct* advertising on television, cigarette companies still manage to convey a message by sponsoring televised athletic events like Brown and Williamson's Rich Lights Bay Hill Golf Classic, Philip Morris' Marlboro Cup horse race, Loews Corporation's (Lorillard) Golden Lights 100's Ladies Golf Tournament, and R.J. Reynolds' Winston Motorcycle Races. Mike Haffner, NBC-TV's football announcer, has been hired as a model for Winston. Cigarette companies have even begun to finance programs on public television to enhance their "good guy" image.

Profiteering

Why does our society allow cigarette companies such license to mislead people? The bottom line is money. Cigarette companies spend close to one *billion* dollars a year on advertising. They provide jobs and their products are a source of tax revenue. What the Surgeon General didn't tell us is how cigarette money is corrupting our society.

The noted chest surgeon, Alton Ochsner, M.D., is one person who has been trying for many years to get insurance companies to give preferential rates to nonsmokers. "The companies' own statistics show that heavy smokers live about 8½ years less," he told me not long ago, "but premiums appear to be set according to the death rates for smokers. Company profits are thus boosted at the expense of nonsmokers who not only pay extra but live longer."

In 1964, following publication of the first Surgeon General's report on smoking and health, State Mutual Assurance Company of America became the first to offer discounts to nonsmokers. In 1979, the company made public an actuarial study of more than 100,000 policy holders. At any age, the study found, smokers have at least twice the risk of dying as nonsmokers, and in some cases 15 times the risk. Nonsmokers are therefore being rewarded with a 30 percent discount by State Mutual.

Two other companies, Allstate and Occidental, launched advertising campaigns in 1979 to promote their new nonsmokers' policies. But in the former's case, at least, an interesting thing happened on the way to its brief television promotion. Leo Burnett, Inc., the ad agency for Philip Morris, revealed Allstate's confidential plans to the cigarette company. Philip Morris, in turn, passed word to the Tobacco Institute, which pressured Allstate to abandon its campaign.

Most other insurance companies have sat on their hands. Metropolitan Life, the nation's largest health insurer, "is exploring the nonsmokers' discount issue," an assistant vice president informed me in February 1980. "No decision has been reached as yet."

The pharmaceutical industry has also been ducking its responsibility to curb the health-related costs of smoking. It's not hard to guess why this industry-which is fond of alluding to itself as "the handmaiden of the medical profession"-has done nothing to help doctors dissuade their patients from smoking. People who smoke need more medication. Is it a coincidence that the most common advertisements on matchbooks are for cold capsules and headache remedies? Smokers get more colds and headaches. They also buy more mouthwash, more perfume, more cosmetics and more alcohol. One company has been bold enough to promote a special smoker's toothpaste—at \$7 a tube! Soon, perhaps, there will be a smoker's shampoo, a smoker's detergent and a smoker's finger stain remover. The Minnesota Mining and Manufacturing Company (3M), which owns the National Outdoor Company (the largest billboard rental company), manufactures surgical masks, respiratory support equipment and a drug for lung conditions. Two other large companies even advise doctors to prescribe their vitamin preparations to patients who smokeadvice not supported by medical evidence.

Conspiracy of Silence

By far the worst hypocrisy is that of the news media which help to promote cigarette smoking. Public outcry over a single case of botulism poisoning can close a food processing plant. Six million cars can be recalled after one death from malfunction of a single 1972 Ford. But editorial consumerism is disturbingly selective.

"Every cigarette ad carries the Surgeon General's warning that smoking may be harmful to your health," one executive of *The New York Times* wrote when asked why his newspaper could not exert more control over cigarette advertising. "We remain confident that the public, fully informed, ultimately will make those decisions that are in its own best interests." If that is so, why hasn't a single daily newspaper tried to inform the public about the chemicals added to cigarettes?

Surveys of major magazines also suggest that cigarette money is buying silence. While magazines which refuse cigarette advertising (such as Good Housekeeping, Consumer Reports, Washington Monthly and the *Reader's Digest*) have carried excellent articles on the dangers of smoking, magazines which accept cigarette money have contained almost none.

Does this mean that most magazine editors are afraid to bite the hand that feeds them hundreds of millions of dollars each year? Or that cigarette companies are prone to punish publications which criticize their products? Adam Hochschild, an editor of *Mother Jones*, believes it does. In 1978, after his magazine discussed smoking and health, \$18,000 worth of advertising was withdrawn immediately by a major tobacco company. The January 1979 issue again explored the dangers of smoking and suggested that all cigarette advertising be banned. "Within two weeks," according to Hochschild, "the two remaining tobacco companies cancelled their existing cigarette ad contracts and made it clear that *Mother Jones* would never get cigarette advertising again."

In January 1979, US Magazine, then owned by *The New York Times*, was set to publish an interview with former Surgeon General Luther Terry, M.D., chief author of the 1964 report. At the last minute, however, the article was cancelled because the magazine's publisher thought it was "too controversial."

On March 18, 1979, *The Miami Herald*'s *TROPIC* Magazine ran an article about Winston-Salem, North Carolina, "The Town That Has Everything: Plenty of high-paying jobs, low taxes, not much crime, a symphony, and an industry that kills 115,000 people a year." R.J. Reynolds, which produces one-third of the cigarettes in the United States, is headquartered in Winston-Salem. *TROPIC* usually carries six large cigarette ads. Why do you suppose none appeared that day?

For three weeks in June 1979, *The Ottawa Citizen* carried front page stories which urged its readers to "start being healthy Canadians" by stopping smoking. In the midst of the series, Imperial Tobacco, Ltd., pulled its advertising. Its marketing vice president expressed surprise that the newspaper's sales department did not "let us know you were running this type of campaign and ask us in advance if we wanted to run our ads during that time." The ads returned soon after the heat was off.

Anti-Cigarette Ads

Between 1964 and 1975 a dramatic change occurred in adult smoking behavior: almost 30 million Americans quit smoking during that period. Previously, most people who stopped did so because they had become too ill to continue. Beginning in the mid-1960's, however, millions of people stopped smoking *before* they became seriously ill. A major reason for this decline was the large number of anti-cigarette messages broadcast on

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television and radio stations throughout the country from 1968 through 1970.

Access for these messages was gained as a result of a petition filed in 1967 with the Federal Communications Commission by John Banzhaf, III, a recent law school graduate. Disturbed that the airwaves were flooded with messages proclaiming the "virtues and values of smoking," Banzhaf asked the FCC to order equal time for contrasting views. Though it rejected the claim for equal time, the FCC did rule that stations must provide—free of charge—"a significant amount of time" each week for anti-cigarette messages; and the courts upheld this ruling.

What happened then is quite remarkable. Major health agencies designed ads which appealed to people in a non-lecturing manner, using humor and calling attention to the improvement in health and looks that would result from not smoking. Although shown during off-hours—and at a frequency 1/20th that of cigarette ads on prime time—the new messages resulted in a dramatic drop in cigarette consumption. Cigarette companies then asked Congress to ban their own commercials *in order to get the opposition off the air!* The tobacco industry reasoned that if broadcasters were released from their *legal* obligation, they would be unlikely to continue anti-cigarette ads in effective numbers.

This strategy proved correct. After cigarette commercials were banned from television and radio in 1971, the number of anti-cigarette commercials dropped sharply. And when cigarette advertisements were switched to the printed media (which have no "equal space" requirement), public health agencies could not curtail their destructive impact.

What Can Be Done

Cigarette companies would like us to believe that the main purpose of their advertising today is to promote brand loyalty rather than to initiate and reinforce the smoking habit. They would also have us believe that interference with their advertising would cut off their right to free speech. Even if these ideas are valid (which is doubtful), there are some very simple ways to make cigarette ads less stimulating. Their warnings could be strengthened in content, increased in size and made more conspicuous. Better yet, all pictures could be banned from cigarette ads so that they could no longer convey images of sexiness or good health. Warnings on cigarette packages should also be made more conspicuous.

Twenty-five years ago, two out of three adult Americans, including physicians, were smokers. Today the overall figure is one-third, but only one out of six physicians smokes. Among physicians, those who do autopsies or operate on cancerous lungs are the least likely to smoke. It is clear that knowledge of the facts makes a difference. But for every dollar that health agencies spend to discourage smoking, tobacco companies can spend close to a thousand dollars to encourage it.

A federal tax of only $1 \notin a$ pack would rectify this inequity. This would provide \$300 million a year to pay for anti-cigarette ads to convince children and adolescents that smoking is unhealthy, unsexy, uncool and socially undesirable.

To reinforce this message, and to protect nonsmokers from the harmful effects of cigarette smoke from nearby smokers, federal laws should be passed to ban smoking from the enclosed areas of all public buildings, such as airline terminals, post offices, courthouses and Congress itself.

Since it is unfair to force nonsmokers to subsidize the excess health and safety costs of smokers, all life, health and fire insurance companies should consider the risks of smoking in setting their rates. Insurance companies should divest themselves of tobacco industry stocks, the holding of which constitutes a conflict of interest. To reduce the hazard of fire from cigarettes, laws should be passed to ban the addition of chemicals which keep them burning while unattended.

The Joint Commission on Accreditation of Hospitals, one of whose functions is to monitor safety, should require *strict* no smoking policies as a condition of hospital accreditation. The American Medical Association's Members Retirement Plan should also set a better example by selling the stock it has owned for many years in Philip Morris, Inc., R.J. Reynolds Industries, Inc., and Liggett Group, Inc. Health professionals should ban both smoking and magazines which carry cigarette ads from their waiting rooms; and patients should demand this of their doctors!

Employers can help both themselves and their workers by adopting personnel policies that discourage smoking. The Alexandria, Va., fire department no longer hires cigarette smokers. The decision was reached after the chief discovered that 16 out of the 22 firemen who retired during the previous five years had suffered from cigarette-related disabilities which cost the city \$300,000 each year in early retirement benefits. A computer firm in California now pays each nonsmoking employee an extra \$750 a year—the approximate cost of medical expenses and lost work days per smoking employee.

The World Health Organization's Expert Committee On Smoking Control recently recommended that all nations ban the promotion of tobacco. Governments of developing countries "should be made aware that the [tax] revenue from tobacco is usually offset by the great expense of caring for the millions who are made sick and by the loss of output by these people and of others who die prematurely," the committee said. Did you

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know that in underdeveloped countries, American manufacturers are pushing the idea that smoking is a way to become civilized?

The U.S. Government should discontinue price supports for tobacco production and should institute a stiff export tax to discourage tobacco companies from exporting their products to other countries.

During the past century, medical science has made remarkable progress. But as long as the tobacco industry goes unchallenged, much of this progress will be negated by cigarette-related diseases.

Recommended Reading

Smoking Digest, a publication of the National Cancer Institute Office of Cancer Communications.

Cigarette Country, by Susan Wagner. Selling Death, by Thomas Whiteside. Subliminal Seduction, by Brian Wilson Key.

2

How Quackery Is Sold

The modern quack has learned to reach people emotionally, on the level that counts the most. What sells is not the quality of his products, but his ability to influence his audience.

BY

WILLIAM T. JARVIS, Ph.D. Associate Professor of Preventive and Community Dentistry Loma Linda University School of Dentistry and STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc. The modern health quack is a supersalesman. He plays on your fears. He caters to your hopes. And once he has you, he keeps you coming back for more . . . and more . . . and more. Seldom do his victims realize how often or how skillfully they are being cheated. Does the mother who feels good as she hands her child a vitamin think to ask herself whether he really needs it? Does the buyer of "extra-strength pain reliever" wonder what's in it or whether an unadvertised brand might cost less? Do subscribers to health food publications realize that articles are slanted to stimulate business for their advertisers? Not usually.

Most people think the modern health quack is easy to spot. But he isn't. He wears the cloak of science. He talks in "scientific" terms. He writes with scientific references. And he is introduced on talk shows as the "scientist ahead of his time." The very word "quack" helps his camouflage by making us think of an outlandish character selling snake oil from the back of a covered wagon—and of course no intelligent person would buy snake oil nowadays, would he?

Well, maybe snake oil isn't selling so well, lately. But acupuncture? "Organic" food? Mouthwash? The latest diet book? A spinal adjustment? Megavitamins? A "stress formula"? Or a shot to pep you up? Business is booming for the health quack. His annual take is in the *billions!* Spot reducers, hair analysis, bust developers, devices to increase manhood, systems to "balance body chemistry," cults to give life new meaning, "new" diets for arthritis. His product list is endless.

What sells is not the quality of his products, but his ability to influence his audience. To those in pain, he promises relief. To the incurable, he offers hope. To the nutrition-conscious, he says, "Make sure you have enough." To a public worried about pollution, he says, "Buy natural." To one and all, he promises better health and a longer life. The modern quack has learned to reach people emotionally, on the level that counts the most. This chapter shows how he does it.

Appeals To Vanity

An attractive young airline stewardess recently told a physician that she was taking more than 20 vitamin pills a day. "I used to feel run-down all the time," she said, "but now I feel really great!"

"Yes," the doctor replied, "but there is no scientific evidence that extra vitamins can do that. Why not take the pills one month on, one month off, to see whether they really help you or whether it's just a coincidence. After all, \$300 a year is a lot of money to be wasting."

"Look, doctor," she said. "I don't care what you say. I KNOW the pills are helping me." How did the health quack convert this bright young lady into a true believer? First, an appeal to her curiosity persuaded her to *try and see*. Then an appeal to her vanity convinced her to disregard scientific evidence in favor of personal experience—to *think for herself*. Supplementation is encouraged by the concept of *biochemical individuality*—that everyone is unique enough to disregard the Recommended Dietary Allowances (RDAs). The quack won't tell you that scientists deliberately set the RDAs high enough to allow for individual differences. A more dangerous appeal of this type is the suggestion that although a remedy for a serious disease has not been shown to work for other people, *it still might work for you*. (You are extraordinary!)

A more subtle appeal to your vanity underlies the message of the TV ad quack: Do it yourself—be your own doctor. "Anyone out there have 'tired blood'?" he wonders. (Don't bother to find out what's wrong with you, however. Just try my tonic.) "Troubled with irregularity?" he asks. (Pay no attention to the doctors who say you don't need a daily movement. Just use my laxative.) "Want to kill germs on contact?" (Never mind that mouthwash won't kill enough to prevent or treat anything.) "Suffering from sluggishness?" (Try a kidney pill.)

Turning Customers Into Salesmen

Most people who think they have been helped by an unorthodox method enjoy sharing their success stories with their friends. People who give such *testimonials* are usually motivated by a sincere wish to *help their fellow man*. Rarely do they realize how difficult it is to evaluate a "health" product on the basis of personal experience. Like the airline stewardess, the average person who feels better after taking a product will not be able to rule out coincidence—or the placebo effect (feeling better because he thinks he has taken a positive step). Since we all tend to believe what others tell us of personal experiences, testimonials can be powerful persuaders. Despite their unreliability, they are the cornerstone of the quack's success.

Some food supplement companies are systematically turning their customers into salesmen. "When you share our products," says the sales manual of one such company, "you're not just selling. You're passing on news about products you believe in to people you care about. Make a list of people you know; you'll be surprised how long it will be. This list is your first source of potential customers."

Sharing a new way of life with your friends is rewarding, another company points out, but "recruiting is the lifeblood of your business. If you believe that our company is the greatest in the world, if you believe your products are the finest products you have ever discovered or used, and if you believe the opportunity is the greatest financial opportunity in the world—then your conviction, belief and excitement will make you a good recruiter, providing you share your conviction with everyone you meet."

The more you sell, the more salesmen you recruit and supervise, the higher your profit percentages and bonuses. Topflight sales leaders can earn a free car and more than \$100,000 a year while "working to benefit humanity."

Testimonials are sometimes faked or enhanced by fakery. An interesting example of this is described in the biography of Forrest C. Shaklee, Sr., a retired chiropractor who founded one of the largest food supplement companies. In 1912, when Shaklee was 18 years old, he helped Bernarr Macfadden tour midwestern cities to spark interest in his courses in "physical culture." According to the book:

Parades were held on the main street of each town, and consisted of a pride of muscular youths [including Shaklee], some musicians, and a flatbed wagon . . . When enough of a crowd had been gathered around the flatbed, each of the youths was to exercise with a given piece of equipment. This was preceded by a discourse from Macfadden, extolling health through nature, diet and especially non-diet (he tended to look upon fasting as a blanket cure-all) and, of course, strenuous exercise . . .

The *piece-de-resistance* of these outdoor displays was the lifting of an iron ball which appeared to weigh easily 500 pounds. Secured to the ball was a massive link chain, which one of the youths would grasp and which, with much concentration and apparent straining, he would raise gradually over his head. The crowds watching in awed silence at the beginning of the feat, would break into cheers and applause when the ball was finally raised. When it was his turn at the ball, Forrest discovered that lifting it was easily accomplished; the ball was hollow!

The Use of Fear

The sale of vitamins has become so profitable that some otherwise reputable manufacturers are promoting them with misleading claims. For example, Lederle Laboratories (makers of *Stresstabs*) and Hoffmann-La Roche, two companies which sponsor many worthwhile scientific endeavors, have been advertising in major magazines that stresses can "rob" you of vitamins. The ads, carefully worded, include true statements that people's vitamin requirements may increase under certain circumstances. But their underlying suggestion is that stresses of everyday living create significant danger of vitamin deficiencies. This is certainly not true. Many other companies offer "stress formulas" with the expectation that people who feel stressed will buy them. (Incidentally, Hoffmann-La Roche, a major producer of vitamin C, is also the largest corporate donor to the Linus Pauling Institute.)

Another slick way for quackery to attract customers is the *invented disease*. Virtually everyone has symptoms of one sort or another—minor aches or pains, reactions to stress or hormone variations, effects of aging, etc. Labeling these ups and downs of life as symptoms of disease enables the quack to provide "treatment."

"Reactive hypoglycemia" is perhaps the most overdiagnosed such illness. Talk show "experts" and a few misguided physicians have been preaching that anxiety, headaches, weakness, dizziness, stomach upset and other common reactions are often caused by "low blood sugar." But the facts are otherwise. Hypoglycemia is very rare. Careful administration and interpretation of a glucose tolerance test is required to make the diagnosis. A recent study of people who thought they had hypoglycemia showed that half of them had symptoms during a glucose tolerance test even though their blood sugar levels remained normal.

The following advertisement shows how the invented disease is employed by some chiropractors:

	TEN DANGER SIGNALS
	WHICH USUALLY INDICATE
	THE NEED FOR CHIROPRACTIC
1.	Recurring headaches
2.	Nervousness
3.	Constipation
4.	Backache or leg pains
5.	General weakness
6.	Dizziness
7.	Grating and popping noises when turning head
8.	Neck pain or 'crick'
9.	Pain between shoulder blades
10.	General body muscle tension
	COURTESY
	DR.

People who respond to the ad are told that they need their spines adjusted.

Some cancer quacks tell people that the true early signs of cancer include "gas" in the stomach or bowel, sudden weakness of the eyes, a tired feeling most of the time, muscle weakness and cramps, extreme mental depression, sudden change in hair texture and the development of hernias. The diagnosis of cancer is then "confirmed" by the quack's own tests on urine, saliva and/or blood samples. Since the cure rate for nonexistent cancer is 100 percent, the quack's treatment with diet, food supplements and other wondrous substances can't possibly fail!

The "Yet Disease" is a favorite with some chiropractors. It works like this: If a patient complains of pain in the left shoulder, the chiropractor asks, "Has the pain spread to the right shoulder . . . YET?" and then offers "preventive" spinal adjustments. When the pain fails to spread, the chiropractor takes the credit.

Interestingly, the same psychology can be used for almost any preventive measure, legitimate or not. "Don't smoke and you won't get lung cancer" and "Eat apricot pits and you won't get cancer" both use the same reasoning. If people can be convinced that a particular practice will prevent a disease, they will credit the practice for the fact that they do not acquire the disease. The fact that many people will not come down with the disease in a given time span will provide a large reservoir of testimonials for any preventive measure.

How can we differentiate between preventive measures which have value and the "Yet Disease" ploy used by quackery? The answer is scientific study. The fact that smokers have twenty times as much lung cancer as nonsmokers can be demonstrated, but the value of apricot pits cannot.

Food safety and environmental protection are important issues in our society. But rather than approach them logically, the food quack exaggerates and oversimplifies. To promote "organic" foods, he lumps all additives into one class and attacks them as "poisonous." He never mentions that natural toxicants are prevented or destroyed by modern food technology. Nor does he let on that many additives are naturally occurring substances.

Sugar has been subject to particularly vicious attack, being (falsely) blamed for most of the world's ailments. But the quack does more than warn about imaginary ailments. He sells "antidotes" for real ones. Care for some vitamin C to reduce the danger of smoking? Or some vitamin E to combat air pollutants? See your local supersalesperson.

The quack's most serious form of fear-mongering has been his attack on water fluoridation. Although fluoridation's safety is established beyond scientific doubt, well-planned scare campaigns have persuaded thou-

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sands of communities not to adjust the fluoride content of their water to prevent cavities. Millions of innocent children have suffered as a result!

Hope for Sale

Since ancient times, man has sought at least four different *magic potions:* the love potion, the fountain of youth, the cure-all and the athletic superpill. Quackery has always been willing to cater to these desires. It used to offer unicorn horn, special elixirs, amulets and magical brews. Today's products are vitamins, bee pollen, ginseng, Gerovital, pyramids, biorhythm charts and many more. Even reputable products are promoted as though they are potions. Toothpastes and colognes will improve our love lives. Hair preparations and skin products will make us look "younger than our years." Over-the-counter medicines are offered for our every ailment. And Olympic athletes tell us that breakfast cereals will make us champions.

False hope for the seriously ill is the cruellest form of quackery because it can lure victims away from effective treatment. Even when death is inevitable, however, false hope can do great damage. Experts who study the dying process tell us that while the initial reaction is shock and disbelief, most terminally ill patients will adjust very well as long as they do not feel abandoned. People who accept the reality of their fate not only die psychologically prepared, but also can put their affairs in order. On the other hand, those who buy false hope can get stuck in an attitude of denial. They waste financial resources, and worse yet, their remaining time.

The choice offered by the quack is not between hope and despair, but between false hope and a chance to adjust to reality. Yet hope springs eternal. The late Jerry Walsh was a severe arthritic who crusaded from coast-to-coast debunking arthritis quackery on behalf of the Arthritis Foundation. Following a television appearance early in his career, he once received 5,700 letters. One hundred congratulated him for blasting the quacks, but 4,500 were from arthritis victims who asked where they could obtain the very fakes he was exposing!

Clinical Tricks

Quacks do not always limit themselves to phony treatment. Sometimes they offer legitimate treatment as well—the quackery is promoted as *something extra*. This is exemplified most clearly by the "orthomolecular" treatment of mental disorders with high dosages of vitamins in addition to orthodox forms of treatment. Patients who receive the "extra" treatment often become convinced that they need to take vitamins for the rest of their lives. Such an outcome is inconsistent with the goal of good medical care which should be to discourage unnecessary treatment.

The one-sided coin is a related ploy. When patients on combined (orthodox and quack) treatment improve, the quack remedy (e.g., laetrile) gets the credit. If things go badly, the patient is told that he arrived too late, and conventional treatment gets the blame. Quacks also capitalize on the natural healing powers of the body by *taking credit* whenever possible for improvement in a patient's condition.

The practice of healing involves both art and science. The art includes all that is done for the patient psychologically. The science involves what is done about the disease itself. If a disease is psychosomatic, art may be all that is needed. The old-time doctor didn't have much science in his little black bag, so he relied more upon the art (called his "bedside manner") and everyone loved him. Today, there is a great deal of science in the bag, but the art has been relatively neglected.

In a contest for patient satisfaction, art will beat science nearly every time. Quacks are masters at the art of delivering health care. The secret to this art is to make the patient believe that he is cared about as a person. To do this, quacks *lather love lavishly*. One way this is done is by having receptionists make notes on the patients' interests and concerns in order to recall them during future visits. This makes each patient feel special in a very personal sort of way. Some chiropractors even send birthday cards to every patient.

Chiropractors have developed a systematic approach to enhance the power of suggestion. Their leading practice-building textbook* includes the following comments which can be made during the first ten visits:

Visit #1: ". . . that adjustment took well."

Visit #2: "What's better?" If patient states that nothing is better . . . say, "but the adjustment took so well yesterday that some improvement should have been noticed. Think hard now . . . isn't something better?" If patient tells of conditions that are better, say, "Wonderful! Great! Good for you! I'm proud of you! I appreciate your getting well!" Give patients

[•] Editor's note: Discussion of chiropractic in this chapter is not meant to imply all chiropractors are quacks or that chiropractors never help people. The reason this chapter contains so many references to chiropractic is that much of their quackery is so well-defined and organized that there are actually written documents which describe it in detail. We regard acquisition of their practice-building textbooks (which are not intended for public eyes) as one of the most significant accomplishments of our 10-year investigation of quackery.

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(a) attention, (b) acceptance, (c) approval, (d) recognition.

- Visit #3: "What's better? Your eyes are brighter."
- Visit #4: "What's better? I hope you're feeling as good as you look."
- Visit #5: "What's better? You're getting a spring in your step."
- Visit #6: "What's better? You're getting in fighting trim."
- Visit #7: "What's better? Your body and mind are getting more rest in each hour of sleep than ever before."
- Visit #8: "What's better? Did you know you'll live longer as a result of these adjustments?"
- Visit #9: "What's better? Did you you know you'll have fewer colds, sore throats, etc., as a result of these adjustments?"
- Visit #10: "What's better? Did you know you'll do better work during the time you are having these adjustments?"

Although seductive tactics of this sort may give patients a powerful psychological lift, they may also encourage over-reliance on an inappropriate therapy.

To promote their ideas, quacks often use a trick where they bypass an all-important basic question and *ask a second question* which, by itself, is not valid. An example of a "second question" is "Why don't the people of Hunza get cancer?" The quack's answer is "because they eat apricot pits" (or some other claim). The first question should have been "Do the people of Hunza get cancer?" The answer is "Yes!" Every group of people on earth gets cancer. So do all animals (vegetarians and meat-eaters alike) and plants. All living cells are vulnerable to this disease of the cell's reproductive system.

The money-back guarantee is a favorite trick of the mail-order quack. He may have no intention of returning any money—but even if he is willing, he knows that few people will take the trouble to return his product.

The willingness to believe that a stranger can supply unique and valuable "inside" information—such as a tip on a horse race or the stock market—seems to be a universal human quirk. Quacks take full advantage of this trait in their promotion of *secret cures*. The gadget quack, for example, will swear you to secrecy before giving treatment with his little black electrical box. He wants you to feel privileged to obtain his cure—but he also wants to prevent you from arousing the suspicions of your less gullible friends. The quack really has good reason for secrecy. He wants his work kept secret from legal authorities who would prosecute his misdeeds. True scientists do not keep their breakthroughs secret. They share them with all mankind. If this were not so, we would still be going to private clinics for the vaccines and other medications used to conquer smallpox, polio, tuberculosis and other dread diseases.

Handling the Opposition

Quacks are involved in a constant struggle with legitimate health care providers, other scientists, government regulatory agencies and consumer protection groups. Despite the strength of this orthodox opposition, quackery manages to flourish. To maintain their credibility, quacks use a variety of clever propaganda ploys. Here are some favorites:

"They persecuted Galileo!" The history of science is laced with instances where great pioneers and their discoveries were met with resistance. Harvey (nature of blood circulation), Lister (antiseptic technique) and Pasteur (germ theory) are notable examples. Today's quack boldly asserts that he is another example of someone ahead of his time.

Close examination, however, will show how unlikely this is. First of all, the early pioneers who were persecuted lived during times that were much less scientific. In some cases, opposition to their ideas stemmed from religious forces. Secondly, it is a basic principle of the scientific method that the burden of proof belongs to the proponent of a claim. The ideas of Galileo, Harvey, Lister and Pasteur overcame their opposition because their soundness can be demonstrated.

A related ploy, which is a favorite with cancer quacks, is the charge of "conspiracy." How can we be sure that the AMA, the FDA, the American Cancer Society and others are not involved in some monstrous plot to withhold a cancer cure from the public? To begin with, history reveals no such practice in the past. The elimination of serious diseases is not a threat to the medical profession—doctors prosper by curing diseases, not by keeping people sick. It should also be apparent that modern medical technology has not altered the zeal of scientists to eliminate disease. When polio was conquered, iron lungs became virtually obsolete, but nobody resisted this advancement because it would force hospitals to change. And neither will scientists mourn the eventual defeat of cancer.

Moreover, how could a conspiracy to withhold a cancer cure hope to be successful? An estimated 2,500 physicians die of cancer each year. Do you believe that the vast majority of doctors would conspire to withhold a cure for a disease which affects themselves, their colleagues and their loved ones? To be effective, a conspiracy would have to be world-wide. If laetrile, for example, really worked, many other nations' scientists would soon realize it. The Russians, in particular, would rejoice if they could beat our scientists to such a marvelous discovery.

Quacks like to charge that "Science doesn't have all the answers." But science doesn't claim to have all the answers. It is quackery which constantly claims to have answers for incurable diseases. The idea that people should turn to quack remedies when frustrated by science's inability to control a disease is irrational. Science may not have all the answers, but quackery has no answers at all! It will take your money and break your heart.

To discredit scientists as "eggheads," quacks often claim that a group of scientists once got together and determined that bumblebees violate the scientific laws of aerodynamics and therefore should not be able to fly. Northrop Aviation engineers grew so tired of hearing this bit of folklore during World War II that they caught bumblebees and actually worked out the scientific formulas whereby they took off and maintained flight.

When placed on the defensive, quacks sometimes pretend that *ignor*ance is a virtue. A self-proclaimed "psychic healer," who has had only a fifth grade education, employs this tactic. Admitting her ignorance of medical matters, she suggests that "emptyheadedness" makes it easier for "otherworldly sources" to get messages through to her since her head isn't cluttered up with information.

Chiropractors use this same form of argument when saying that they are "too busy making sick people well" to find out how their treatment works. In reality, what science wants to determine first is not *how* a treatment works, but *if* it works. Chiropractors claim that the fact that their profession has survived for 85 years is proof enough; but this is faulty reasoning. Astrology has survived for thousands of years without proof of its validity. Ignorance is neither a virtue nor an excuse to ply one's trade on sick people.

When a quack remedy flunks a scientific test, will the quack admit he is wrong? Hardly. He will merely reject the test. Science writer John J. Fried provides a classic description of this tactic in his book, *The Vitamin Conspiracy*:

Because vitamin enthusiasts believe in publicity more than they believe in accurate scientific investigation, they use the media to perpetuate their faulty ideas without ever having to face up to the fallacies of their nonsensical theories. They announce to the world that horse manure, liberally rubbed into the scalp, will cure, oh, brain tumors. Researchers from the establishment side, under pressure to verify the claims, will run experiments and find that the claim is wrong.

The enthusiasts will not retire to their laboratories to rethink their position. Not at all. They will announce to the world that the establishment wasn't using enough horse manure, or that it didn't use the horse manure long enough, or that it used horse manure from the wrong kind of horses. The process is neverending . . . The public is the ultimate loser in this charade.

Promoters of laetrile have also been shifting their claims. First they claimed that laetrile could cure cancer. Then they said it couldn't cure, but could control cancer. Lately they have been saying that laetrile alone is not enough—it must be accompanied by a special diet. No matter which of these claims is tested, proponents will argue that an untested claim is their dominant belief.

The *disclaimer* is a related tactic. Instead of promising to cure your specific disease, some quacks will offer to "detoxify" your body, balance its chemistry, release its "nerve energy," bring it in harmony with nature, etc. This type of disclaimer serves two purposes. Since it is impossible to measure the processes the quack describes, it is difficult to prove him wrong. In addition, if the quack is not a physician, the use of nonmedical terminology may help him avoid prosecution for practicing medicine without a license.

Sometimes the quack will say, "You may have come to me too late, but I will try my best to help you." That way, if the treatment fails, you have only yourself to blame.

Fad diet books typically suggest that the reader consult a doctor before following their advice. This disclaimer is intended to protect the author and publisher from legal responsibility for any dangerous ideas contained in the book. Both author and publisher know full well, however, that most people won't ask their doctor. If they wanted their doctor's advice, they probably wouldn't be reading the book in the first place.

"Health Freedom"

If the health quack can't win by playing according to the rules, he tries to change the rules by switching from the scientific to the political arena. In science, a medical claim is treated as though false until proven beyond a reasonable doubt. But in politics, a medical claim may be accepted until proven false or harmful beyond a reasonable doubt. This is why proponents of laetrile, chiropractic. orthomolecular psychiatry, chelation therapy and the like, take their cases to the legislatures rather than to scientific groups.

Quacks use the concept of "health freedom" to divert attention away from themselves and toward victims of disease with whom we are naturally sympathetic. "These poor folks should have the freedom to choose whatever treatments they want," cries the quack with crocodile tears in his eyes. He wants us to overlook two things. First, no one wants to be cheated, especially in matters of life and health. A victim of disease does not demand the quack's treatment because he wants to exercise his "rights," but because he has been persuaded that it offers hope. Second, the laws which outlaw worthless nostrums are not directed against the victims of disease but at the promoters who attempt to exploit them.

Any threat to freedom strikes deeply into American cultural values. But we must also realize that complete freedom is appropriate only in a society in which everyone is perfectly trustworthy—and no such society exists. Experience has taught us that quackery can even lead people to poison themselves, their children and their friends.

It is because of the vulnerability of the desperately ill that consumer protection laws have been passed. These laws simply require that products offered in the health marketplace be both safe and effective. If only safety were required, any substance that would not kill you on the spot could be hawked to the gullible.

Some people claim we now have too much government regulation. But the issue should be one of quality, not quantity. We can always use good regulatory laws. Our opposition should be toward bad regulations which stifle our economy or cramp our lifestyles unnecessarily. Consumer protection laws need to be preserved.

Unfortunately, some politicians seem oblivious to these basic principles and expound the "health freedom" concept as though they are doing their constituents a favor. In reality, "health freedom" constitutes a hunting license for quackery, with open season declared on the sick, the frightened and the desperate. It represents a return to the law of the jungle in which the strong feed upon the weak.

How to Avoid Being Tricked

The best way to avoid being tricked is to stay away from tricksters. Unfortunately, in health matters, this is no simple task. Quackery is not sold with a warning label. Moreover, the dividing line between what is quackery and what is not is by no means sharp.

A product which is effective in one situation may be part of a quack scheme in another. (Quackery lies in the promise, not the product.) A practitioner who uses effective methods may also use ineffective ones. For example, he may mix valuable advice to stop smoking with unsound advice to take vitamins. Even an outright quack may relieve some psychosomatic ailments with his reassuring manner.

This book illustrates how adept quacks are at selling themselves. Sad to say, in most contests between quacks and ordinary people, the quacks are still likely to win.

Every system—whether based on the position of the stars, the swing of a pendulum, the fall of cards or dice, the accidents of nature, the intuitions of a psychic—claims its quota of satisfied customers . . . It behooves us to examine the nature and significance of such beliefs.

BY

RAY HYMAN, Ph.D. Professor of Psychology University of Oregon

Major C. L. Cooper-Hunt, M.A., Ps.D., Ms.D., D.D., Ph.D., M.S.F., practices "medical radiesthesia." According to his book, *Radiesthetic Analysis*,

Radiesthesia, or the faculty of radio-perception, is a term describing the power of detecting the vibrations, or waves of force, which emanate from all manifested nature, including the four great kingdoms, or fields, of minerals, plants, animals and human—yes, and why not the further fields of force beyond our own particular label of consciousness, i.e., the angelic, celestial and divine . . . In order to detect and measure these inner forces various implements have been employed from the hazel-twig and the pendulum to the latest highly sensitive apparatus evolved by such enthusiastic workers as Abrams, Drown and de la Warr.*

In his "great crusade against the inroad of disease both physical and mental," Major Cooper-Hunt has accumulated a "growing pile of testimonial letters extending for over ten years of practice from the so-called 'incurables' testifying to definite alleviation and in a multitude of cases to permanent cure."

Let me cite one of his simpler cases. The patient had acute insomnia which had not yielded to various types of remedies. Using a pendulum to test her "polarity," Cooper-Hunt and his wife discovered that the patient was sleeping with her head in the wrong direction. "Radiesthetic examination indicated a different alignment and the patient [was] advised to try it out," the Cooper-Hunts reported. "Her subsequent report was complete harmony and sound sleep."

Miss F practices "regression therapy." She believes that most illnesses and emotional problems result from patterns and traumas experienced in

^{*} Albert Abrams, M.D. (1864–1924), considered by the AMA to have been the "dean of gadget quacks," made millions of dollars treating patients and leasing his gadgets to others. He claimed that all parts of the body emit electrical impulses of different frequencies that vary with health and disease. Illnesses (as well as age, sex, religion and location) could be diagnosed by "tuning in" on the patient's blood or handwriting sample with one machine; and diseases could be treated by feeding proper vibrations into the body with another machine. Abrams willed his fortune to the Electronic Medical Foundation, whose subsequent president, Fred J. Hart, founded the National Health Federation (see Chapter 19). Ruth Drown, a chiropractor who followed in Abrams' footsteps until her death in 1965, claimed that she could help patients even if they were thousands of miles away. Work "based on the Abrams principles" (and now referred to as "radionics") is still being carried out at the Delawarr Laboratories in Oxford, England, founded in 1943 by George and Margaret de la Warr.

"previous lives." One of her patients, she told my psychology class, suffered from severe lower abdominal pains for which medical doctors could find neither cause nor cure. When "regressed" to a previous existence, the patient showed signs of intense pain and complained that a dagger had been thrust into his lower abdomen. At Miss F's suggestion, the patient went through the motions of "removing" the dagger. The pain was immediately relieved, and according to Miss F, it has never returned.

Another of her cases is that of a California physician who suffered from overwhelming guilt. In six of his previous lives, it turned out, the doctor had been the innocent victim of false accusations and punishments. This indicated to Miss F that in some still earlier life the doctor had done something wrong for which he was still punishing himself. With further probing, Miss F discovered that the doctor, as "one of the major scientists on Atlantis," had made a scientific decision which had contributed to the island's destruction. His subsequent feelings of guilt were based on the assumption that he had been completely responsible for the disaster. Miss F convinced him that he had punished himself enough and that he alone was not responsible. Indeed, she had another patient who, in a previous life, had also contributed to the destruction of Atlantis! Needless to say, these revelations lifted the burden of guilt from the doctor's shoulders and enabled him to resume living with increased effectiveness.

In *The Psychic Healing Book*, Amy Wallace and Bill Henkin report the following case:

Martha, a 22-year-old woman, had scarred Fallopian tubes and was supposedly sterile. Doctors told her she would never have another child. After several healings, she returned to one of these doctors, who discovered that the scar tissue had disappeared.

Using methods which the authors feel can be taught to most people, Ms. Wallace claims to have helped to at least "partial recovery," cases of hemophilia, multiple sclerosis, cancer, arthritis and spinal disorders.

Mary Coddington, in her book *In Search of the Healing Energy*, cites a dramatic case of instant healing. At a beach party, a slightly intoxicated man missed his step as he emerged from an automobile which had parked near the edge of the beach. "As he fell, there was the characteristic snapping sound of breaking bones. Inspection showed a compound fracture of the left leg just above the ankle." An old woman, a practitioner of Hawaiian ("huna") magic, pressed the man's bones together and recited a healing prayer. After a while, she said: "The healing is finished.

Stand up. You can walk." The injured man stood up and walked. His leg was apparently completely healed.

Characteristics of Occult Healing

The above cases all involve use of a supposed force or technique which is unrecognized by orthodox medical science. You have undoubtedly heard about other cases. At first glance, healers who use "black boxes" or other secret machines may seem very different from those who rely upon divine or psychic forces. But in practice, many spiritual healers talk about mysterious energies employed by gadgeteers; and operators of gadgets often refer to psychic aspects of their own procedures. For the sake of discussion, let us group all of them under the heading of "occult healers."

The word "occult" means hidden, secret or mysterious. Some cases of occult healing are said to be the result of a psychic power or other supernatural force. Other cases are attributed to a force or energy which is natural but as yet unrecognized by science. Some psychics claim to possess hidden or supernatural powers without specifying their source. Others attribute the source of their power to a Supreme Being, to spirit guides (who may or may not be surviving souls of dead persons), to previous incarnations, to intelligent beings from other "planes" or worlds, or to similar esoteric possibilities. Many healers are eclectic, eagerly embracing all theories and claims, even contradictory ones. The common denominator of all occult practitioners is that they do not produce scientifically acceptable proof of their results—their evidence is *testimonial*.

So what? Is there anything wrong with using reports from satisfied customers as evidence that a method works? Isn't the goal of medical treatment to make people better? If patients believe themselves to be better, shouldn't their reports be accepted as evidence in favor of a treatment? Is there a better way to evaluate a treatment than trying it yourself? Is not the proof of the pudding in its eating???

Life would certainly be simpler if medical treatments could be tested as easily as puddings. But healing is far more complicated than cooking. If a woman sleeps better after being advised to change her position, should we accept this as evidence that a pendulum can determine "polarity"? If two patients improve after undergoing intense emotional experiences with Miss F, does this argue for the reality of "previous existences"? If scar tissue disappears after a patient consults a psychic healer, does this prove that psychic forces did the job? It should be obvious that in each of these cases, non-occult factors may be responsible for any improvement.

Instant healing of a compound fracture, if it took place as described above, would provide powerful evidence in favor of *huna*. But how can we

be sure that a fracture occurred? No doctor was present and no x-ray films were obtained. We are told that a man fell down while getting out of a car and that someone heard a noise which was interpreted as the breaking of bones. We are told that "inspection" showed a compound fracture, but whether a qualified observer was present is not specified in the account. Worse yet, can we be sure that the entire story is not fabricated?

Dr. Louis Rose, in his book *Faith Healing*, tells how he tried for 18 years to find evidence of healing which could be attributed to a spiritual or supernatural power. Enlisting the cooperation of Harry Edwards and other British proponents, Rose collected 95 cases of reported cures. He found that in 58 of them, medical records were unavailable. In 22 others, available records disagreed with the reported events. The rest of the cases were ambiguous in other ways.

My own experience in tracking down cases has been similar. Adequate records of diagnosis and outcome are either unavailable or contradict the reported accounts.

Dr. William Nolen, a surgeon from Minnesota, spent two years watching faith healers at work and examined some of their patients (see Chapter 17). He concluded that no patients with organic disease had been helped.

"But It Works"

Despite the lack of "scientific" evidence, it would be a mistake to dismiss occult healing as unworthy of serious investigation. Huge numbers of people believe that occult practices work. Every system—whether based on the position of the stars, the swing of a pendulum, the fall of cards or dice, the accidents of nature, the intuitions of a psychic—claims its quota of satisfied customers. If nothing else, it behooves us to examine the nature and significance of such beliefs.

It is not difficult to understand how people can be misled into thinking that an illness has been healed by an unorthodox method. Most ailments are self-limiting. When spontaneous recovery occurs in conjunction with occult healing, patients often credit the occultist. Some illnesses respond favorably to suggestion and other psychological factors. The positive and confident attitude of the healer may actually relieve symptoms, especially those related to tension. In addition, since people do not like to think of themselves as doing foolish things, those who consult occult healers are strongly motivated to believe and act as though they have been helped. To scientists who insist upon objective evidence, random sampling, controlled experiments and the like, believers respond that "people should be

treated as individuals, not statistics." Rather than question the nature of their own beliefs, those who "know" that occult practices work see science as too dogmatic.

The Fallacy of Personal Validation

Much research has been done to explore how people form their beliefs about occult matters. In 1948, the psychologist Bertram Forer administered a personality test to the 39 students in one of his courses. One week later, he gave each student a typed personality sketch with his name on it—supposedly the "results" of the tests. Unknown to the students, however, each one actually received an identical list of 13 statements which Forer had copied from an astrology book:

- 1. You have a great need for other people to like and admire you.
- 2. You have a tendency to be critical of yourself.
- 3. You have a great deal of unused capacity which you have not turned to your advantage.
- 4. While you have some personality weaknesses, you are generally able to compensate for them.
- 5. Your sexual adjustment has presented problems for you.
- 6. Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.
- 7. At times you have serious doubts as to whether you have made the right decision or done the right thing.
- 8. You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations.
- 9. You pride yourself as an independent thinker and do not accept others' statements without satisfactory proof.
- 10. You have found it unwise to be too frank in revealing yourself to others.
- 11. At times you are extroverted, affable, sociable, while at other times you are introverted, wary, reserved.
- 12. Some of your aspirations tend to be pretty unrealistic.
- 13. Security is one of your major goals in life.

After reading the sketch, students were asked to rate how well it revealed their basic personality characteristics. On a scale of 0(poor) to 5(perfect), 34 out of 39 rated it 4 or better; and 16 of these rated it as perfect! Many other investigators have confirmed and added to these findings. It turns out to be surprisingly easy to get people to accept a fake personality sketch as a unique description of their personality.

Cold Reading

If a fake sketch can convince people, think how much more effective a presentation can be if its information is actually tailored to the client. This tailoring is part of a technique known as "cold reading." In this situation, a "reader" (of palms, tea leaves, a crystal ball, tarot cards or whatever) who encounters a client for the first time ("cold") is able to persuade him that the reading captures the essence of the client's personality and problems.

The reader may begin by making general and universal statements such as those in the preceding sketch. Then, using observations of the client as a guide, the reader is gradually able to adapt the reading to the specific attributes and problems of the client. Much useful information about the client can be gained just by observing such things as clothing, hair style, complexion, physique and manner. More important, as the reading progresses, the client will supply other clues in his reactions to specific statements. Sometimes these reactions take the form of spoken approval or denial. More often they are non-verbal cues such as pupil size, breathing rate, posture, facial expressions and other bodily reactions.

A skilled reader can quickly tell which statements "hit the mark" and develop these further. As this happens, the client will usually be persuaded that the reader, by some uncanny means, has gained insight into the client's innermost thoughts. His guard goes down and he actually tells the reader the details of what is bothering him. After a suitable interval, the reader feeds back this information so that the client is further amazed at how much the reader "knows" about him. Invariably the client leaves without realizing that everything he has been told is simply what he himself unwittingly revealed to the reader.

A classic illustration of cold reading was described by John Mulholland, a magician who was well known during the 1930's and 1940's. A young lady who visited a character reader was wearing expensive jewelry, a wedding band and a black dress of cheap material. The observant reader also noted that the woman was wearing shoes that were currently being advertised for people with foot trouble. (Pause for a moment, imagine that you are the reader and see what you would make with these clues.)

Using just these observations, the reader proceeded to amaze his client with his insights. He assumed that she wanted help, as did most of his female customers, with a love or financial problem. The black dress and wedding band led him to reason that her husband had died recently. The jewelry suggested financial comfort during the marriage, but the cheap dress indicated that her husband's death had left her penniless. The

therapeutic shoes signified that she was standing on her feet more than she was used to, suggesting that she was now working to support herself.

The reader's shrewdness led to the following conclusions which turned out to be correct: The lady had met a man who had proposed to her. She wanted to marry him to end her economic hardship, but she felt guilty about marrying so soon after her husband's death. The reader told her what she had come to hear—that it was all right to marry without further delay.

Another factor in the success of cold reading is what the psychologist Sir Frederic Bartlett called "the effort after meaning." We are constantly searching for the meaning of what we see. We try to make sense out of what people tell us, what they do and what we ourselves do. Most of the time we succeed, but sometimes we overdo it and assume meanings that were not intended.

Suppose, for example, a reader suggests that you have found it unwise to be too frank in revealing yourself to others (item #10 of Forer's fake sketch). If you trust the reader, you will try to make sense out of his statement by thinking of circumstances in your life which confirm it. You may have recently offended a friend by calling the friend's obsession with astrology foolish. You may have upset your parents by announcing that you just moved in with this friend. So you assume that the reader is referring to these events. The more you want the reading to succeed, the harder you will search your memory for evidence to "verify" his statements

Even if a client is skeptical or believes that psychic reading is nonsense, the very fact of participation will set up powerful psychological forces which encourage belief. A reporter once checked with me before he visited a well-known psychic. After the visit, he declared it a perfect success. The reading had lasted approximately an hour. During most of that time, the reader had made statements which were either completely wrong or so general that they would fit anyone. However, at one point during the interview, the reporter began to think about trouble he was having with his girlfriend. At this moment, the reader said, "I see that you are having trouble with a relationship." This remark, coming at the very moment he was concerned about his affair, had an impact so powerful that consideration of all the other wrong statements and useless banter was swept aside. The reporter could not be talked out of his conviction that the reading had been a "success."

The client is not the only person who can be taken in by what happens between reader and client. I began reading palms during my teens as a way to supplement my income as a magician and mentalist. When I

began, I did not believe in palmistry but I knew that to sell it I had to act as though I did. After a few years I became a firm believer in palmistry because it appeared to work. One day another mentalist whom I respected tactfully suggested that it would make an interesting experiment if I deliberately gave readings opposite to what the palm lines indicated. I tried this out with a few clients. To my surprise and horror, my readings were just as successful! Ever since then I have been interested in the powerful forces that can convince people that something is so when it isn't. It is certainly clear that how people feel about a "treatment" they have experienced is often unrelated to its effectiveness.

Unmet Needs

The apparent success of occult healers suggests that they are appealing to needs that the medical profession should be handling more effectively. And the fact that millions of clients not only consult occult practitioners but also wrongly believe in their claims, implies that our educational system is failing. Today we can go from kindergarten through graduate school without having to take a single course in the sort of logic, scientific methods and self-understanding which would help protect us from quackery.

Concerned citizens should insist that our educational system prepare us to be better consumers. This would entail providing the intellectual tools necessary to separate sense from nonsense. One set of tools would enable us to recognize what constitutes good scientific evidence for a claim. The other set of tools would help us realize the ways our own thoughts and feelings can mislead us.

Recommended Reading

Water Witching U.S.A., by Ray Hyman, Ph.D.

The Fear of Additives

Today's "back-to-nature" mania is a hoax orchestrated by a variety of opportunists who are taking advantage of a vulnerable public.

> ELIZABETH M. WHELAN, Sc.D., M.P.H. Executive Director American Council on Science and Health

More and more shoppers are moving slowly through the food markets, cross-examining package labels as they go. They are worried about "all those chemicals" in our diet. I can easily understand this fear. I've been there myself.

For me, it began in the fall of 1969. Prior to that time, I had been enjoying the noncaloric sweet life. I would shake a few drops of a miracle liquid into my coffee each morning, quench my thirst at lunch with a chilled bottle of calorie-free soda, and garnish my dinner salad with a thick, creamy, but non-guilt-provoking diet dressing. Then, suddenly, the Secretary of Health, Education and Welfare informed me (and millions of other cyclamate users) that the innocent-looking white powder perking up my low-cholesterol, low-fat breakfast had brought about a cancerous tumor in the bladders of some unfortunate sweet-toothed rodents. Cyclamates soon disappeared—and so did my confidence in food additives.

If cyclamates were indeed dangerous, what about all those other chemicals that are routinely added to food? I started to read labels compulsively. Butylated hydroxyanisole (BHA). Butylated hydroxytoluene (BHT). Sodium bisulfite. Lecithin. Xanthin gum. How did I know they were safe? The fact that I couldn't even *pronounce* them didn't make me feel any better.

Eventually I shifted from reading labels to reading books. Authors informed me that there were poisons in my food—mischievous chemicals lurking in my cupboards, waiting for the chance to pollute my "inner environment" and scramble the genes of the next generation. A very unappetizing evaluation indeed. And what did these writers suggest? A return to nature, the consumption of foods that were "100% pure, organically grown," packed with "no artificial anything." Natural foods, they said, were my key to a long and happy life and, most important, a means of lowering my odds of contracting the most dread of all diseases, cancer.

So I gave it a try. For three months I shopped at the Mother Nature Spa around the corner. I bought the makings for cold lentil salad, organic omelettes, fava bean casserole, desiccated liver stew, and cucumberyogurt soup with dill. I drank so much Tiger's Milk that I thought I detected stripes on my skin. I ate so much honey and granola that I began to feel like a sticky wheat product. I tried the natural way. It was expensive and time-consuming and I didn't like it. But I was still worried about food additives. Although I had a graduate degree in public health, the subject of additives had barely been touched on during my training.

I did know how to investigate, however, and decided to look more deeply into the natural-vs.-artificial controversy. I surveyed both popular and

The Fear of Additives

scientific literature on the subject. I examined food fads of the past to see if our current back-to-nature binge had historical roots. I talked with Food and Drug Administration officials, political representatives, independent scientific researchers and food industry chemists. I learned how the food laws worked in general, and how the so-called Delaney anticancer clause was applied in recent decisions to ban additives. My conclusion: Today's back-to-nature mania, like similar movements throughout history, is a hoax orchestrated by a variety of opportunists who are taking advantage of a vulnerable public.

I returned to "regular" food, comfortable about eating but determined to share my hard-won insights with others.

"All Those Chemicals"

All foods, indeed all living things, are made of chemicals. A hot, steamy solution which contains essential oils, butyl, isoamyl, phenyl, ethyl, hexyl and benzyl alcohols, tannin, geraniol and other chemicals is not some artificially wicked brew, but an ordinary cup of tea. If you have rejected boxed stuffing mix because its ingredients include sulfur dioxide, calcium propionate, turmeric, monosodium glutamate, BHA, propylgallate and a long list of other chemicals, remember that 100 percent natural potatoes, even those which are "organically grown," contain more than 150 chemicals, including solanine, oxalic acid, arsenic, tannin and nitrates.

Some perfectly safe foods contain deadly toxins. The solanine in potatoes, for example. In high doses, solanine can interfere with nerve impulses. The amount of solanine in 119 pounds of potatoes (the amount eaten in one year by the average person) is enough to kill a horse. But eaten one serving at a time, potatoes are harmless. Lima beans contain cyanide, but those sold in the United States do not contain enough to worry about. *Poison is a matter of dose!*

These simple facts tell us something: Most people who complain about "too many chemicals in our food" are confused, untrustworthy, or both.

But What About Additives?

In its broadest definition, a food additive is anything added to food. Additives make up less than 1 percent of our food. The most widely used are sugar, salt and corn syrup. These three, plus citric acid (found in oranges and lemons), baking soda, vegetable colors, mustard and pepper, account for about 98 percent by weight of all food additives used in this country. Today there are more than 2,800 substances that are intentionally added to foods. It is the responsibility of the FDA to judge the safety of these substances, and a great deal of attention has been paid to this matter. Food additives, particularly those introduced in the past 15 years, have survived rigid testing procedures not applied to the great majority of natural products. These tests must prove that the additive is not only safe, but performs an important function.

Many additives are used to enhance food colors and flavors. Naturophiles say that they don't care if their favorite fruit juice is perky purple or gangrenous green. But for many other people, food must look appealing. A ripe orange that loses its characteristic color as a result of a temperature variation may be perfectly edible and nutritious. But people who don't think it "looks right" won't eat it. Food dyes are used to correct this situation.

Taste is equally important. Variety keeps our diet interesting, but there is simply not enough natural flavoring to satisfy our demanding tastebuds. For example, there is not enough natural vanilla in the whole world to flavor the ice cream we eat in this country in a year. So we synthesize vanillin, the flavoring substance found in vanilla extract.

Additives also perform vital functions in food preservation and enrichment. The World Health Organization estimates that almost a quarter of the food produced is lost each year before it gets into consumer hands as a result of infestation by insects and rodents and because of spoilage. Food additives slow down deterioration considerably and as a result, make the food supply more plentiful. Antimicrobial preservatives prevent spoilage by bacteria, molds, fungi and yeast. They also extend shelf-life and protect natural food color or flavor. Antioxidants delay or prevent rancidity or enzymatic browning. Fortification of foods with iodine and vitamin D has almost eliminated the scourges of goiter and rickets.

Now let's look at the additives which have been most controversial during the past few years.

Sugar Myths

Many recent books and magazine articles would have us believe that sugar is "the killer on the breakfast table" and is the underlying cause of everything from heart disease to hypoglycemia. The facts, however, are as follows:

- When sugar is used in moderation as part of a normal, balanced diet, it is perfectly safe.
- 2) Sugar does not cause diabetes, even in excess amounts.

(High levels may worsen this disease if you have it, however.)

- 3) Although sugar is a factor in the tooth decay process, what counts is not merely the amount of sugar in the diet but the length of time that *any* digestible carbohydrate remains in contact with the teeth (and the extent of oral hygiene practiced).
- There is no evidence that sugar increases your chances of developing heart disease.
- 5) Sugar is not the cause of obesity. Overweight is caused by eating more calories than are used up in body activity. Excess calories will cause overweight regardless of what kind of food they are in.
- 6) Hypoglycemia ("Low blood sugar"), which is rare, is not caused by sugar.

The Concern About Nitrites

Sodium nitrite is used during the curing process of meats and fish and is responsible for the characteristic flavor, color and texture of bacon, ham and sausage products. Without sodium nitrite, bacon would be salt pork, and ham would look and taste like roast pork. Most important, sodium nitrite prevents growth of bacteria that cause the deadly botulism poisoning.

The concern over nitrite is based on the observation that under some circumstances it can combine with other components of our diet to form chemical compounds known as nitrosamines. Some nitrosamines have been found to cause cancer when fed in large doses to test animals. However, sodium nitrite is a normal component of human saliva and some 80 percent of the nitrite in the body comes from vegetables—celery, beets, radishes, lettuce, spinach, collards, turnip greens, etc. The potential conversion of nitrites to nitrosamines can happen as easily to the saliva's natural nitrite as it can to nitrite from hot dogs or bacon. So it seems a bit absurd to panic over small amounts of additives which prevent serious health threats while being unconcerned about naturally occurring nitrites.

Certainly nitrites should be studied further. We don't know everything we should about how they work and what problems, if any, they may cause. But right now we have no other efficient way of curing meats and preventing botulism. Although there is no evidence that nitrites in cured products actually pose a hazard to human health, the FDA and the Department of Agriculture have ordered the amount of nitrite in bacon to be lowered to reduce any possible risk.

The Fear of Additives

The Beef Over DES

DES is the abbreviation for diethylstilbestrol, a synthetic form of estrogen that has been used since the 1940's as a form of medication. Since 1954, this hormone has been used to stimulate the growth of cattle. A 500-pound animal treated with DES will reach a marketable weight of 1,000 pounds in 34 days less time and require 500 pounds less feed than would an animal not using DES. These savings can result in lower meat prices to consumers.

In 1971, it was discovered that a small number of women whose mothers had received DES during pregnancy had developed a very rare form of vaginal cancer. This dramatic announcement added a new emotional component to the evaluation of DES as a cattle growth stimulant, and cattle raisers were ordered to withdraw the drug seven days before slaughtering time. Not long afterward, however, traces of DES were detected in the livers of a small percentage of cattle through the use of a highly sensitive new radioisotope technique. Pressure continued to "get that cancer-causing agent off the dinner table."

Should we be worried that "greedy cattle producers" were poisoning us in order to increase their profit margins? A few facts should help us place this matter in perspective. DES is not the only source of estrogen to which we are exposed. Milk, eggs and honey all contain estrogen. An egg contains many times the amount contained in the liver of a DES-treated animal. Estrogen is also produced in our own bodies.

The woman whose daughters developed vaginal cancer were given up to 125 mg per day of DES. To get that amount from DES-treated cattle, you would have to eat more than 100,000 pounds of beef liver. Birth control pills also contain far more synthetic estrogen than could be found in a serving of liver.

Although it is clear that *massive* doses of estrogen can cause cancer, there is no evidence that the tiny amounts of DES found in liver pose a threat to our health. Despite this fact, in February 1979, the FDA banned the use of DES in beef production.

Artificial Sweeteners

Cyclamates were banned in 1969, after more than 18 years of use, because in one study of 240 rats eating a mixture that included cyclamate, eight of those at the highest dose levels developed bladder tumors.

Why were they banned on the basis of such meager evidence? During the fall of 1969, a few so-called consumer advocates publicly, but without supporting facts, raised questions about the sweetener. When the results of the laboratory experiment became known, public concern reached a peak and the Secretary of Health, Education and Welfare felt pressured to act. Now, a decade later, both regulators and food scientists feel that the banning of cyclamates was probably a mistake. Subsequent studies throughout the world have not demonstrated a danger to humans, and a review of the evidence is now under way.

And saccharin? In 1977, preliminary results of a Canadian study showed that rats fed large amounts of saccharin developed bladder tumors. Saccharin had had an 80-year history of safe use by humans. Studies of diabetics who used large amounts of this sweetener for up to 25 years had revealed no excess incidence of cancer. But the FDA announced its intention to ban it.

In June 1977, the press carried reports that another Canadian study had found an increased incidence of bladder cancer in male saccharin users. The results of this study were not consistent with at least eight other epidemiological studies done by prominent scientists from Harvard, Johns Hopkins, Oxford and elsewhere. Indeed, the previous studies, which involved more than 60,000 persons, showed no adverse effects from saccharin use. The new Canadian study did show a 60 percent increased risk of cancer in males—but it also showed a 40 percent decreased risk for females. The study also noted that men who smoked 0–15 cigarettes per day had no increased cancer risk. *Lancet*, the medical journal which published the article, labeled the human evidence against saccharin "unimpressive."

The National Academy of Sciences (NAS), which also reviewed the data, concluded that epidemiological studies do not provide clear evidence either to support or refute an association between saccharin use and cancer in humans. NAS also concluded that saccharin is a low-potency carcinogen in male rats and may increase the potency of other cancer-causing agents, but the relevance of this conclusion to humans is far from clear.

Faced with the prospect of losing their last artificial sweetener, irate saccharin users bombarded Congress with messages of protest and a law was quickly passed to delay the ban. It appears to me that the risk to humans from saccharin, if any, is exceedingly small; but the ultimate fate of this artificial sweetener remains to be seen.

The Delaney Clause

A key factor in the banning of food additives is a 47-word section of the 1958 food additives amendment to the federal Food, Drug and Cosmetic Act. Known as the "Delaney clause," it states: No additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animal, or if it is found, after tests which are appropriate for the evaluation of the safety of food additives, to induce cancer in man or animals . . .

The problem with the Delaney clause is its inflexibility. It calls for banning whether a risk is great or infinitesimal. Followed literally, it also fails to allow regulators to weigh possible risks against known benefits (as will be needed in the case of nitrites). In the mind of retired Congressman James Delaney, prime sponsor of the legislation that bears his name, such subtle distinctions do not appear to matter. An avowed antifluoridationist, he regards carcinogens as "stealthy, sinister saboteurs of life." Passage of his controversial amendment may well have laid the groundwork for the current public fear of additives.

The requirement that animal tests be "appropriate" might appear to offer some regulatory flexibility. But the very existence of the Delaney clause has made the FDA too vulnerable to public pressure. Despite flimsy evidence, the Delaney clause *was* invoked in the banning of cyclamates, DES and a few unlucky coloring agents.

Do Additives Cause Cancer?

Cancer has moved from being the eighth leading cause of death in 1900 to being the second leading cause in 1980. At first glance, the parallel rise in the use of food additives might make them leading suspects in the cancer-whodunit mystery. But a closer look indicates that the rise in cancer deaths in this country in the last 45 years is largely attributable to *lung* cancer. The lung cancer rate is now 18 times as high for men and six times as high for women as it was in 1930, the first year cancer statistics by site were kept. Most other forms of cancer have either stabilized or declined during this period. This includes cancer of the stomach, the organ which we might suspect would be most affected by food. Ironically, use of the antioxidants BHA and BHT may be responsible for a decline in human stomach cancer. These actually decrease the incidence of stomach cancer when added to the diet of laboratory animals.

You will continue to read and hear stories about how additives are dangerous, untested and put into our food just so food companies can make more money. The reality is, however, that we know more about additives than we do about the chemistry of food itself. Without the intelligent use of additives, it would be far more difficult to feed all of us.

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Food prices would be much higher and most women would be back in the kitchen for many long hours.

Do Additives Cause Hyperactivity?

One of the most sweeping accusations against food additives has been made by Benjamin Feingold, M.D., a pediatric allergist at the Kaiser-Permanente Medical Center in San Francisco, who recently retired from practice. In 1975, Dr. Feingold proposed that salicylates, artificial colors and artificial flavors were the causes of hyperactivity in children. To treat or prevent this condition, he suggested a diet which was free of these chemicals.

Adherence to the Feingold diet requires a drastic change in family lifestyle and eating patterns. Virtually all manufactured baked goods, luncheon meats, ice cream, powdered puddings, candies, sodas and punches must be eliminated. Coffee, tea, margarine, colored butter and most commercially-produced condiments are excluded. In addition, many non-food items such as mouthwash, toothpaste, cough drops, perfume and some over-the-counter and prescription products are prohibited. "Convenience foods" are generally restricted because they contain artificial colors and flavors.

Two different types of scientific investigations have been carried out to test the Feingold theory. In the first type, the "diet crossover" studies, groups of hyperactive children were placed on two different experimental diets, one diet at a time, for a few weeks. One diet followed Dr. Feingold's recommendations. The other was disguised to look like the Feingold diet but actually contained salicylates, artificial colors and artificial flavors. The behavior of the children on both diets was observed and compared. If the children were less hyperactive on the additive-free diet, the theory of Dr. Feingold would be supported.

The results of these early studies varied considerably. Some children appeared to improve, some were unchanged and some worsened. But scientists soon realized that the crossover type of study could not indicate which change—family diet or lifestyle—was affecting the children.

So a second type of investigation was carried out in the form of "specific challenge" experiments. Here, children whose behavior had seemed to improve on the Feingold diet were kept on the diet but were occasionally given "treats." Some treats contained artificial food colors and others (that appeared identical) did not. The experiments were "double-blind." A code prevented anyone from knowing which type of treat was being consumed until the experiment was completed. Six of these experiments were carried out. The results show that additives *do not* have a dramatic effect on behavior. Some people who are allergic to aspirin are also allergic to tartrazine, the chemical in Yellow Food Dye #5. The allergic reactions may take the form of hives, GI upsets, nasal allergy or asthma. But there is no evidence that tartrazine causes hyperactivity.

So much for the chemicals themselves. Now we'll see how the fear of chemicals has been orchestrated.

Promotion of Food Fads

There have always been food fads. If you look hard enough, you could probably find historical expressions of concern about almost every item in the human diet. Foods are highly susceptible to rumor and rumor promotes food faddism.

Sylvester Graham (1794–1851) mixed religious fanaticism with a zeal for the natural, "uncomplicated" life: "The simpler, plainer and more natural the food . . . the more healthy, vigorous and long-lived will be the body." Among the prohibited foods were salt and other condiments (these and sexual excesses caused insanity), cooked vegetables (against God's law) and chicken pies (caused cholera). His most vigorous attacks were against "unnatural" substances such as meat, white flour products and water consumed at mealtime. Although Graham's health petered out at the age of 57, his spirit remains with us in the cracker that bears his name.

John Harvey Kellogg (1852-1943) supposedly ate his way through medical school on a diet of apples and graham crackers. He belonged to a Seventh Day Adventist group which had founded a religious colony and health sanitarium at Battle Creek, Michigan. It is said that he and his brother. Will, were the first men to make a million dollars from food faddism. Under Dr. Kellogg's leadership, the Battle Creek Sanitarium attracted hordes of wealthy clients whose intestines he "detoxified" with enemas and high-fiber diets. In an effort to provide a dried bread product upon which his clients could exercise their teeth without breaking them, he hit upon the idea of a wheat flake. By 1899, the flakes had evolved into a cereal-based company that had many competitors. One was Charles W. Post, a former Kellogg patient, who ground up wheat and barley loaves, called his new product "grape nuts" and marketed it as a cure for appendicitis, malaria, consumption and loose teeth. Thus were the humble beginnings of two of today's giant cereal producers, the Kellogg Company and the Post Division of General Foods.

Adolphus Hohensee (1901–1967) began training to be a nutrition expert by taking a job as a soda jerk. After dabbling in real estate (with time in jail for mail fraud) and the field of transportation (during which time he was arrested for passing bad checks), he resumed his education. In 1943, he acquired an Honorary Degree of Doctor of Medicine from a non-accredited school and followed this with Doctor of Naturopathy degrees from two schools that he did not attend. In 1946 he acquired a chiropractic license in the state of Nevada.

A master showman, Hohensee could lecture for hours about the terrible American diet that would stagnate the blood, corrode the blood vessels, erode the kidneys and clog the intestines. Most people had intestinal worms, he said, that (fortunately) could be cured by his special cleansing diet. He promised a long life to those who consumed his wonder products. Repeated prosecution by the FDA made him more cautious about selling his products during lectures, but his promotion of the gamut of food myths sent his audiences flocking to nearby health food stores whose shelves just happened to be well-stocked with his product line. In 1955, alert reporters caught Hohensee eating a meal of forbidden foods after one of his lectures. Beginning in 1962, he served 18 months in prison for selling honey with false claims. But neither of these setbacks dampened his enthusiasm or that of his loyal followers.

Gaylord Hauser (1895–) promised to add years to your life with five wonder foods: skim milk, brewer's yeast, wheat germ, yogurt and blackstrap molasses. His book, *Look Younger, Live Longer*, led the bestseller list in 1951. William Howard Hay warned against protein and white bread and urged frequent use of laxatives. D. C. Jarvis, another physician, believed that bodily alkalinity was the principal threat to American health and recommended apple cider vinegar as the antidote. Meat, wheat foods, citrus fruits, white sugar and maple sugar were his no-no's. Melvin Page, D.D.S., who warned that milk was an underlying cause of cancer, persuaded many of his followers to stop drinking it or giving it to their children.

And so on—one faddist after another—each with his own brand of fear and magic. By the mid-1960's, the "health food" industry was wellestablished, but had not yet captured the average person's mind. Most of its customers were considered cultists. Two developments changed things, however. The first was the explosive growth of mass communication—particularly television. The second was the growing public concern about pollution. Rachel Carson's *Silent Spring*, though filled with errors, increased public concern about pesticides and decreased public confidence in governmental protection. The concept of "organic farming" enabled faddists like J.I. Rodale and Adelle Davis to arouse the interest of many people who weren't looking for magic, but just wanted to feel safer. Sales pitches like "Make sure you have enough" and "Beware of chemicals in your food" converted the majority of Americans into at least occasional customers. Rodale and Ms. Davis made millions from the sale of their publications.

Into the 70's, promoters of faddism kept pounding away: "Our food supply is poisoned!"—"Our soil is depleted!"—"Buy natural!"—"Don't trust the government!" Carlton Fredericks, Gary Null and a host of other spokesmen dominated the airwaves and bookshelves, supported by a chorus of health food store operators and chiropractors. Linus Pauling turned millions more people on to vitamins. And the cyclamate scare turned millions more off the FDA, paving the way for voices from another direction.

Consumer Advocates

In 1970, a team of "Nader's Raiders" led by attorney James Turner* published *The Chemical Feast*, a blistering attack on the FDA. Said the book, "The Food and Drug Administration will not acknowledge the relationship between deteriorating American health and the limited supply of safe and wholesome food." During the following year, three other Nader associates formed the Center for Science in the Public Interest (CSPI) to investigate and report on a variety of food and chemical issues.

A stated goal of CSPI is to "improve the quality of the American diet through research and public education." It also "watchdogs federal agencies that oversee food safety, trade and nutrition" and sponsors an annual National Food Day to call public attention to food issues. What issues? A 1975 Food Day brochure claims that "Chemical farming methods create environmental havoc." A 1976 brochure states: "Every few months, it seems, another common food additive is found to be harmful . . . And agricultural chemicals have polluted everything from the nation's water supply to mother's milk." CSPI's Nutrition Action Project, led by microbiologist Michael Jacobson, holds that "most Americans get their information about food from ads by the big food corporations, which are . . more concerned with big profits than with good nutrition."

Nader's disciples differ from the traditional attackers of chemicals in that they do not stress magical ideas about food. They are not obviously outlandish and do not appear to be motivated by personal financial gain. But they do oversimplify, sensationalize, and undermine public confi-

^{*} Editor's Note: In 1978, Turner was placed on retainer by the National Health Federation as its "Washington Representative." NHF is a health food industry group which promotes questionable health methods and is very antagonistic to the FDA. (See Chapter 19.)

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dence in the government and the food industry—which lends credibility to what the faddists have been saying all along.

Food Industry Response

Many of our country's largest and most respected food companies have also jumped on the back-to-nature bandwagon. Today the words "natural" and "additive-free" appear on almost every type of edible product. Even beer and candy bars (so-called "health bars") bear these magic words. The hottest category in the breakfast cereal market are those called "health" or "natural" cereals—descendants of John Harvey Kellogg's granola. Loaded with sugar and/or honey, these cereals promote tooth decay when eaten as a snack without milk. They are also relatively high in calories, with some providing as many as 140 per ounce (compared to the 90–100 calories per ounce in the ordinary prepared cereals).

By thus exploiting the growing public fear of additives, many companies are making windfall profits. But they are also ignoring their responsibility to the American public. An educational campaign aimed at exposing food faddism would be a much more commendable course of action.

A Balancing Force

For many years, I have been associated with Fredrick J. Stare, M.D., who founded and was Chairman of the Nutrition Department, Harvard University School of Public Health. In 1978, we formed a new scientific organization whose purpose is to investigate chemical issues in our lives. Known as the American Council on Science and Health (ACSH), it is non-profit and tax-exempt. It has a full-time staff of researchers and a 45-person scientific advisory committee.

Every month or so, ACSH selects a topic for investigation and assigns a staff member to coordinate research for the project. A computer search of the scientific literature is performed, pertinent literature is collected and analyzed, experts are interviewed and unpublished research projects are reviewed. After an initial draft is written, copies are sent to appropriate members of our advisory board and to outside experts as well. After comments are received, a new draft is circulated and additional feedback is obtained. Any remaining points of contention are resolved before the final conclusions are reached. Two final reports are then published, a detailed scientific report and a shorter version for the media and lay public. The reports are released at press conferences and follow-up speakers are available on request.

ACSH hopes to add a rational voice to the discussion of chemicals in our society—a voice that represents a consensus of scientific thinking about each of the topics we investigate. We recognize, of course, that there is no such thing as absolute safety in environmental issues. The value of each chemical used must be weighed carefully against its actual or potential hazards. Our approach is in marked contrast to others who base their calls for government bannings on emotion or political advantage.

Even before our first report was issued, the Center for Science in the Public Interest began to suggest that ACSH was "biased" and a "front" for industry. There is no substance to these allegations. The activities of our council are supported by grants from foundations, government research grants and individual contributions; but we do not accept contributions from any sources which have a commercial interest in the issues we are investigating.

In our opinion, the American food supply is the safest in the world. It isn't perfect and we don't know all there is to know about food safety but responsible scientists *are* working to protect us. The current widespread fear of food additives is totally unjustified.

Recommended Reading

More Than You Ever Thought You Would Know About Food Additives, by Phyllis Lehman. FDA Consumer, April, May and June, 1979. The New Nuts Among The Berries, by Ronald Deutsch. The Chemicals We Eat, by M. A. Bernarde. Panic In The Pantry, by Elizabeth Whelan.

Did you ever stop to think that your corner grocery, fruit market, meat market and supermarket are also health food stores? They are—and they charge less for food which is identical or superior to that provided by "health food" stores

BY

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We are in the midst of a vitamin craze. Health hustlers are cleaning up by stoking our fears and stroking our hopes. With their deceptive credentials, they dominate air waves and publications. The media hosts love them. Their false promises of super-health draw audiences of millions.

The situation now appears even worse than it was 15 years ago, when the U.S. Food and Drug Administration Commissioner, George P. Larrick, stated:

The most widespread and expensive type of quackery in the United States today is the promotion of vitamin products, special dietary foods, and food supplements. Millions of consumers are being misled concerning the need for such products. Complicating this problem is a vast and growing 'folklore' or 'mythology' of nutrition which is being built up by pseudoscientific literature in books, pamphlets and periodicals. As a result, millions of people are attempting self-medication for imaginary and real illnesses with a multitude of more or less irrational food items. Food quackery today can only be compared to the patent medicine craze which reached its height in the last century.

"Health food" rackets cost Americans over a billion dollars a year. The main victims of this waste are the elderly, the pregnant, the sick and the poor.

The "Basic Four" of Good Nutrition

Have you been brainwashed by the hucksters? Do you supplement your diet with extra nutrients? Why? Do you believe that, "If some is good, more may be better"? Do you believe, "It can't hurt"? Do you believe you are getting "nutritional insurance"? If you believe any of these things, you have been misled.

The fundamentals of good nutrition are simple: To get the amounts and kinds of nutrients to maintain a positive state of health, all you need to eat is a moderate amount of food from each of the four basic categories (the "four basics"). Foods are categorized on the basis of "leader" nutrients they contain, and you should eat a wide variety within each category. Your daily average should be:

1. Fruits and/or vegetables and/or fruit juices: four servings,

- at least one of which is fresh or fresh-frozen and uncooked.
- 2. Grains and/or grain products (including cereals, breads, rice, macaroni, etc.): four servings.

3. Meats and/or meat products (including fish and/or poultry and/or eggs): two servings.

4. Milk and/or milk products: two to four servings, with less needed as one grows up.

An easy way to remember the four basic categories is to think of a cheeseburger with lettuce and tomato—it has them all (although the "fast food" variety may be too fatty to recommend it for a steady diet).

The health huckster doesn't tell you that the normal person needs no vitamin supplements if he gets the "four basics" each day. Why? Because his profits come from withholding that truth. Unlike your family doctor, he does not make his living by keeping you healthy, but rather by tempting you with rash, extravagant and false claims. Such claims raise his personal appearance fees, sell his books and magazine articles, and sell the products of companies in which (unknown to you) he may have a financial interest.

The Dangers of Excess Vitamins

When on the defensive, the quack is quick to demand, "How do you know it doesn't help?" The reply to this is "How do you know it doesn't harm?" Many substances which are harmless in small or moderate doses can be harmful either in large doses or by gradual build-up over many years. Just because a substance (such as a vitamin) is found naturally in food does not mean it is harmless in large doses. In fact, an entire book has been written on this subject (*Toxicants Occurring Naturally in Foods, 2nd Edition*, published by a subcommittee of the National Research Council, National Academy of Sciences). The book includes a chapter on the toxicity of vitamins.

What do scientists mean by "excess" vitamins? They are referring to dosages in excess of the "Recommended Dietary Allowances (RDAs)" set by the Food and Nutrition Board of the National Research Council, National Academy of Sciences. The Recommended Dietary Allowances are the "levels of intake of essential nutrients considered, in the judgment of the Food and Nutrition Board on the basis of available scientific knowledge, to be adequate to meet the known nutritional needs of practically all healthy persons."

RDAs should not be confused with "requirements." They are actually more than most people require.

Quacks charge that the RDAs are set by a group which has a "conflict of interest to work to benefit the food industry." If you ever hear this, don't believe it. The RDA Committee of the Food and Nutrition Board consists of recognized nutrition experts from the Universities of California, Iowa, Wisconsin, New York State and Harvard, as well as from the National Institutes of Health and the U.S. Department of Agriculture. There is not one representative of industry on the RDA Committee. Its work is supported by the National Institutes of Health, but members themselves serve without pay. Meeting at regular intervals, the RDA Committee sets its values after thorough study of the best evidence that scientists all over the world have developed.

There are only two situations in which the use of vitamins in excess of the RDAs is legitimate. The first is the treatment of *medically diagnosed* deficiency states—conditions which are rare except among alcoholics, persons with intestinal malabsorption defects, and the poor, especially those who are pregnant or elderly. The other use is in the treatment of certain conditions in which vitamins are being used experimentally for their chemical (non-vitamin) actions.

Too much vitamin A can cause lack of appetite, retarded growth in children, drying and cracking of the skin, enlarged liver and spleen, increased intracranial pressure, loss of hair, migratory joint pains, menstrual difficulty, bone pain, irritability and headache.

Prolonged excessive intake of vitamin D can cause loss of appetite, nausea, weakness, weight loss, polyuria, constipation, vague aches, stiffness, kidney stones, calcifying of tissues, high blood pressure, acidosis and kidney failure which can lead to death.

Large doses of nicotinic acid or nicotinamide, recommended by purveyors of "orthomolecular psychiatry" can cause severe flushing, itching, liver damage, skin disorders, gout, ulcers and blood sugar disorders.

Excess vitamin E can cause headaches, nausea, tiredness, giddiness, inflammation of the mouth, chapped lips, GI disturbances, muscle weakness, low blood sugar, increased bleeding tendency and degenerative changes. By antagonizing the action of vitamin A, large doses of vitamin E can also cause blurred vision. Vitamin E can also reduce sexual organ function—just the opposite of the false claim that the vitamin heightens sexual potency. (This claim is based on experiments with rats . . . Quacks don't tell you that what may be true with rats may be just the opposite with man!)

Another way to look for health trouble is with large doses of ascorbic acid—vitamin C. Here the quacks take great pleasure in attempting to link themselves with one of the truly great men of our age, Dr. Linus Pauling, two-time Nobel Prize winner. Pauling's belief that vitamin C has value against the common cold may have slight validity, but its value is quite limited. Like an antihistamine tablet, in some cases it may reduce the symptomatology of a full-blown cold or completely eliminate the symptomatology of a mild cold (thereby creating the impression that no cold occurred). There is no reliable evidence that large doses of vitamin C *prevent* colds, and it is therefore not logical to take such doses in the absence of a cold.

Our laboratory has published evidence that under certain circumstances, large doses of vitamin C can reduce the availability of vitamin B-12 for absorption. In addition, excess vitamin C may damage growing bone, produce diarrhea, produce "rebound scurvy" in newborn infants whose mothers took such dosage, produce adverse effects in pregnancy, cause kidney stones and produce false urine tests for sugar in diabetics. There may be other adverse effects. What should you do? Don't take more than 60 milligrams (mg) of ascorbic acid a day (the adult RDA) unless you have checked with your doctor, are pregnant (RDA 80 mg/day) or are breast-feeding (RDA 100 mg/day).

Health Hustlers are Usually Charlatans and Quacks

The Random House Unabridged Dictionary of the English Language says that a charlatan is "one who pretends to more knowledge or skill than he possesses; quack." It then defines a quack as "1. a fraudulent or ignorant pretender to medical skill. 2. a person who pretends, professionally or publicly, to skill, knowledge, or qualification which he does not possess; a charlatan. 3. being a quack: a quack psychologist who complicates everyone's problems. 4. presented falsely as having curative powers: quack medicine. 5. to advertise or sell with fraudulent claims."

The quack's pretense to greater knowledge or skill than he really has comes in various forms, some quite subtle. For example, the pretense often comes in the form of impressive-sounding credentials. It is typical for the talk show host to remark, when a quack and a genuine scientist are brought together as guests, "You both have such excellent credentials, and yet you make diametrically opposed statements. What is the layman to think?" What the layman should think is that one of the "experts" is very likely a quack.

Often the talk show quack will support his case by quoting the findings of a "great scientist" (another quack) who has "published over a hundred studies in scientific journals on vitamin E (or whatever)." Be cautious. He may be referring to publications which will publish anything submitted by almost anybody. Many journals do not have review systems to screen out garbage. The scientist knows which journals are scientific and which ones are not. The layman may not know this. But the quack does

not care about the quality of his sources of information. He merely accepts any findings which appear to support him and rejects any evidence which contradicts his ideas.

Some quacks have a more modest-seeming approach, "I have published a few papers on this—maybe it takes more papers to convince some people." Don't let this fool you. It is not the number of papers which determines scientific truth, but the quality of the contents of each paper. One thousand poorly designed studies are one thousand pieces of junk. One well-designed study is worth its weight in gold. (The quack hates well-designed "controlled" studies.) Also keep in mind that when a quack refers to his own "research," what he really means is his unscientific combination of thoughts, plagiarized from two or more sources.

Recognizing the Quack—Seventeen Tips

How can you spot the health hustlers, the food quacks, the con men, the charlatans? The following should make you suspicious:

Tip #1: He advises that you go out and buy something which you would not otherwise have bought.

He tells you all the wonderful things that nutrients do in your body and what can happen if you don't get enough. But he conveniently neglects to tell you that a balanced variety of foods should give you all the nutrients you need. He wants you to think that more is better.

Ask yourself whether the friendly fellow with the benign smile who is recommending large doses of vitamin C or E, or some other vitamin or combination of vitamins, could have a financial interest in what you do. Next time you hear someone on a talk show pushing a vitamin, call or write the station and ask whether he or the station has a financial interest, direct or indirect, in one or more companies selling vitamins. You might also ask whether Old Toothy Smile has ever been convicted of practicing medicine without a license. And whether any company in which he has or has had a financial interest has ever had its vitamin products seized by the FDA for mislabeling. The silence which greets your inquiry will astound you.

Tip #2: He is a Fake Specialist, with Imposing "Front" Titles. Credentials sell people. Because he knows this, and sometimes because he has grandiose character traits with messianic feelings, the quack often provides himself with impressive-sounding titles. Such include "Director" or "President" of the "X Nutrition Institute" or the "Y Nutrition Society," or "Nutrition Consultant" or "Nutrition Expert" or "World's Foremost (or Greatest or Leading) Nutritionist." Be suspicious of such titles. The "Institute" or "Society" will usually prove to be a "front" (created by the

quack or his agents) with no standing among genuine nutrition scientists. The titles and institutes are rarely affiliated with legitimate scientific or academic institutions. When the quack is a "Nutrition Consultant," it will usually turn out to be to an organization which peddles misleading health information and/or vitamins and/or health foods. Often, the organization is controlled by him.

Information on who incorporated an institute or society is available from the State Attorney General where the institute is located. As for the title, "World's Foremost (or Greatest or Leading) Nutritionist," there is no such title given by an reputable scientific organization. It is a "cover" anyone can use, no matter how ignorant he may be about nutrition. There is no law against it, just as there is no law against anyone calling himself "World's Foremost Lover."

Some reputable organizations which work for the advancement of science will accept any private citizen as a member. Quacks often join such groups in order to add "legitimate" credentials to their list. In order to protect the public, "open" membership organizations should forbid advertising of membership. The American Association for the Advancement of Science is one which does this. Anyone who publicizes AAAS membership is likely to receive a letter like this one from its business manager:

Several years ago, our Board of Directors passed a resolution forbidding members to advertise the fact of their membership.

The reason for this resolution was that this Association will accept anyone's application for membership and, therefore, membership in this Association does not indicate any scientific achievement of the individual. On the other hand, the reader of the printed matter, not knowing the Association's non-existing membership requirements, most likely will misinterpret the announced membership of an individual in this Association as an indication of his scientific status.

Please remove at once all printed matter which lists you as a member of our Association from circulation and please prevent reference to your membership in this Association in any public statements. Thank you in advance for your cooperation.

The largest private (non-government) group of genuine health research scientists in the world is probably the Federation of American Societies for Experimental Biology (FASEB). The American Institute of Nutrition (AIN) is the nutrition branch of FASEB, and the American Society for Clinical Nutrition (ASCN) is the clinical nutrition arm of AIN.

The Health Hustlers

These three organizations screen out quacks, so be suspicious if a "nutrition expert" does not list one of them among his credentials—especially if he includes some other group with "Nutrition" in its title. Some quacks try to seem more respectable by attacking other quacks.

Your doctor may be able to help you separate good nutrition information from nutrition nonsense. Unfortunately, a doctorate degree is not a guarantee of reliability. A few people with M.D., D.D.S. or Ph.D. after their names-who have received their training in reputable institutionshave straved from scientific thought. Some of them have written books. The medical and dental degrees of Emanuel Cheraskin and the dental degree of W. M. Ringsdorf, Jr., did not prevent them from writing New Hope for Incurable Diseases, a book which stimulates false hopes that vitamins can cure various diseases which, at present, are incurable. An advertisement for this book deceptively states that, "In an era of increasing faddism and misinformation about foods, the reader will benefit from the authoritative treatment of the subject contained herein." Unfortunately, the law does not protect you from this type of deception. When this ad was sent to the New York State Attorney General and the FDA. both replied that it was out of their jurisdiction. In the Fall, 1972 issue of the Journal of Nutrition Education, Dr. C. E. Butterworth, Jr., Director of the Nutrition Program at the University of Alabama (where Cheraskin and Ringsdorf were on the dental faculty), wrote a devastating review of their book, closing with:

There are a number of other statements throughout the book which are patently erroneous or misleading . . . The main objection to this book is the tone and attitude of the presentation. There are subtleties and innuendoes readily apparent to an educated reader but which, alas, are likely to be missed by the lay public. One expects more from university professors who write interpretations of science for the general public. This book has apparently been written for the faddist fringe and "health" food store market and for readers who seemingly *want* to believe the miracles wrought by diet without regard for scientific evidence.

Surely hope is an essential element of life, both to the sufferer from an incurable disease and the members of his family. But it is cruel to raise false hope under any pretense. In my opinion, this book raises nothing but false hopes, many of them not even new, in the mind of an uneducated reader.

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Tip #3: He says that most disease is due to a bad or faulty diet. This is not so. Inspect any medical school textbook of medicine or ask your doctor. They will tell you that most diseases have nothing to do with diet. Malaise (feeling poorly), tiredness, lack of pep, aches (including headaches) or pains, insomnia and similar complaints are usually the body's reaction to emotional stress, overwork, etc. The persistence of such complaints is a signal to see a doctor to be evaluated for possible underlying physical illness. It is not a signal to add vitamins.

Tip #4: He says that most people are poorly nourished (the old "Sub-Clinical Deficiency" gambit). This is an appeal to fear which is not only untrue, but ignores the fact that the main forms of "poor" nourishment in the United States are undernourishment in the poverty-stricken and over-nourishment in the economically well-to-do. The poverty-stricken can ill afford to waste money on unnecessary vitamins. Their food money should be spent on the "basic four" which contain not only all the vitamins in proper amounts, but also the other necessary nutrients.

It has been alleged that our advertising age has produced an addiction to snack foods, making a well-rounded diet exceptional rather than usual. This is an exaggeration, since the "basic four" need not be obtained in each meal, but rather over the course of an entire day. It is true that some snack foods are mainly "empty calories" (sugar without other nutrients). But it should be noted that acquiring the "basic four" is not all that difficult.

The quack tells you that everyone is in danger of "subclinical deficiency." Does that sound scary? It is meant to be. It is a typical sales tactic, like that of the door-to-door furnace huckster who tells you your perfectly good furnace is in danger of blowing up and you can only be saved by replacing it with his product. Scientists sometimes use the term subclinical deficiency to refer to the situation of a patient on the road to deficiency from an inadequate diet. But no normal person eating a well-balanced diet each day is in any danger of "subclinical vitamin deficiency."

There is a form of poor nourishment which is particularly common in this country—fluoride deficiency. Fluoride is necessary to build strong teeth which resist decay. The best way for people to get an adequate amount of this essential nutrient is to adjust community water supplies so that the fluoride concentration is about one part fluoride for every million parts of water. Strangely, the quack is usually opposed to water fluoridation (see Chapter 16). It almost seems as if when he can't personally profit from the sale, he isn't interested in your health. Tip #5: He tells you that soil depletion and the use of chemical fertilizers cause malnutrition. If a nutrient is missing from the soil, a plant just does not grow. Chemical fertilizers counteract the effects of soil depletion. The quack is dead wrong when he claims otherwise! He is also wrong when he claims that plants grown with natural (animal) fertilizers are nutritionally superior to those grown with synthetic fertilizers. The only "extra" you may get from an animal fertilizer is a good case of salmonella diarrhea or gastrointestinal parasites. Moreover, "natural" foods are more likely to have molds growing on them which produce aflatoxins which are among the most potent carcinogens (cancerproducers). Some food additives reduce the growth of these molds.

Don't make the mistake of thinking that the law forces people to tell the truth about nutrition. FDA regulations forbid only *labeling* claims that a deficient diet may be due to the soil in which a food is grown. But our laws do not protect you from the quack who states the same thing on TV or radio or in a publication.

Tip #6: He alleges that modern processing methods and storage remove all nutritive value from our food. This is a gross distortion of fact. It is true that food processing can change the nutrient content of foods. But the changes are not so drastic as the quack, who wants you to buy his supplements, wants you to believe. While some processing methods destroy nutrients, others add them. As long as you select your foods properly, you will get all the nourishment you need.

The quack distorts and oversimplifies. When he tells you that milling removes B vitamins and iron, he does not bother to tell you that enrichment puts them back. When he tells you that cooking destroys nutrients, he does not tell you that only a few nutrients are sensitive to heat. Nor does he tell you that these few nutrients are easily obtained by having fresh fruit, vegetable or fruit juice each day.

Tip #7: He tells you that under stress, and in certain diseases, your need for nutrients is increased. An increasing number of major pharmaceutical manufacturers have been using this tactic lately. One company asserts that "if you drink, smoke, diet, or happen to be sick, you may be robbing your body of vitamins." Another warns that "stress can deplete your body of water-soluble vitamins . . . and daily replacement is necessary." Another plugs its product to fill the "special needs of athletes."

While it is true that the need for vitamins may rise slightly under stress and in certain diseases, the ads are misleading. The average American, stressed or not, is simply not in imminent danger of scurvy or beriberi. The increased needs referred to in the ads are neither significant nor unmet by proper eating. A person who is really in danger of deficiency as

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a result of illness would be a very ill person who needs medical care, probably in a hospital. But these promotions are aimed at well-nourished members of the general public who certainly do not need vitamin supplements to survive the common cold, a round of golf, or a jog around the neighborhood!

Tip #8: He says that you are in danger of being poisoned by food additives and preservatives. This is a scare tactic designed to undermine your confidence in food scientists and in government protection agencies. The quack wants you to think that he is out to protect you. He hopes that if you trust him, you will buy what he recommends. The fact is that the tiny amounts of preservatives used to protect our food pose no threat to human health.

This chapter cannot cover this subject in detail, but I would like to comment on how ridiculous quacks can get about food additives, especially those which are found naturally in food anyway. Calcium propionate, which is used to preserve bread, occurs naturally in Swiss cheese. The quack who would steer you toward (higher-priced) bread made without preservatives is careful not to tell you that one ounce of Swiss cheese, which you may eat in a sandwich, contains enough calcium propionate to retard spoilage of two loaves of bread. Similarly, the organic food quack who warns against monosodium glutamate (MSG), does not tell you that wheat germ is a major natural source of this substance.

Also curious is the fact that many plant substances sold in health food stores are potentially toxic and can even cause death. The April 6, 1979, *Medical Letter* lists more than 30 such products, most of them used for making herbal teas.

Tip #9: He tells you that if you eat badly, you'll be OK if you take a vitamin or vitamin and mineral supplement. This is the "Nutrition Insurance Gambit." It is dangerous nonsense. Not only is it untrue, but it encourages careless eating habits. The cure for eating badly is a well-balanced diet. Money spent for a vitamin or mineral supplement would be better spent for a daily portion of fresh fruit or vegetable. With one exception, the "four basics" diet contains all the nutrients, known and unknown, that normal people need. (The exception involves the mineral iron. The average American diet contains barely enough iron to meet the needs of infants, women of child-bearing age and, especially, pregnant women. This problem can be solved simply by cooking in a "Dutch oven" or any iron pot or eating iron-rich foods such as soy beans, liver and veal muscle.)

Tip #10: He recommends that everybody take vitamins or health foods or both. The nutrition quack belittles normal foods. He does not tell you that he earns his living from such recommendations—via public appearance fees, endorsements, sale of publications or financial interests in vitamin companies, health food stores and/or "organic" farms. On the subject of "health food" stores—the term itself is deceptive. Did you ever stop to think that your corner grocery, fruit market, meat market and supermarket are also health food stores? They are—and they charge less for food which is identical or superior to that provided by "health food" stores!

The quack often makes nutritional claims for bioflavonoids, rutin, inositol, para-aminobenzoic acid (PABA) and other such food substances. These "non-essential" ingredients are not needed in the diet, and the FDA forbids nutritional claims for them in labeling.

By the way, have you ever wondered why people who eat lots of "health foods" must also load themselves up with vitamin supplements?

Tip #11: He recommends a wide variety of substances similar to those found in your body. The underlying idea—reminiscent of the wishful thinking of primitive tribes—is that taking these substances will strengthen or rejuvenate body processes that involve similar substances. For example, according to a health food store brochure:

Raw glandular therapy, or "cellular therapy"—as it is called in Europe—seems almost too simple to be true. It consists of giving in supplement form (intravenous or oral) those specific tissues from animals that correspond to the weakened areas of the human body. In other words, if a person has a weak pancreas, give him raw pancreas substance; if the heart is weak, give raw heart. etc.

Vitamins and other nutrients may be added to the various preparations. When taken by mouth, such preparations may not do direct harm, but their promotion by the health food industry encourages extreme degrees of self-diagnosis and self-treatment. Injections of raw animal tissues, however, can cause allergic reactions to their proteins; and some preparations have caused serious infections.

Proponents of "tissue salts" suggest that the basic cause of disease is mineral deficiency—correction of which will enable the body to heal itself. Under this system of healing, one or more of twelve salts are appropriate for the prevention and treatment of a wide variety of diseases, including appendicitis (ruptured or not), baldness, deafness, insomnia and worms. Development of this method is attributed to a 19th century physician named W. H. Schuessler.

Enzymes for oral use are another ripoff. They supposedly can aid diges-

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tion and "support" many other functions within the body. The fact is, however, that enzymes taken by mouth are broken down into their component amino acids by the stomach and intestines and therefore do not function as enzymes within the body. Pancreatic enzymes have some legitimate medical uses in diseases which are accompanied by decreased secretion of pancreatic enzymes, but these diseases are not appropriate for self-diagnosis or self-treatment. Anyone who actually has a pancreatic enzyme deficiency may have a serious underlying disease that should be medically diagnosed and treated.

Tip #12: He claims that "natural" vitamins are better than "synthetic" ones. This claim is a flat lie and anyone who makes it should be immediately classified by you as a quack. Each vitamin is a chain of atoms strung together as a molecule. Molecules made in the "factories" of nature are identical to those made in the factories of chemical companies.

Tip #13: He promises quick, dramatic, miraculous cures. The promises are usually implied or subtle—so he can deny making them when the Feds close in. Such promises are the health hustler's most immoral practice. He does not see, know, or want to know the people who have been broken financially or in spirit—by the elation over his claims of quick cure followed by the depression when the claims prove false. Nor does the health hustler keep count of how many people he lures away from proper medical care.

Quacks will tell you that "megavitamins" (huge doses of vitamins) can cure many different ailments, particularly emotional ones. But they won't tell you that the "evidence" supporting such claims is unreliable because it is based on inadequate investigations, anecdotes and testimonials. Nor do quacks tell you that megadoses may be harmful.

Ginseng is currently being promoted as a healthful tonic and aphrodisiac. It is also being used to get "high" (*naturally*, of course!). But before you try it, take heed. It contains a variety of potentially toxic chemicals, some of which act like steroid drugs. Among its toxic effects are diarrhea, skin eruptions, insomnia, nervousness and severe mental confusion. Ginseng also contains small amounts of estrogens and has been reported to cause swollen and painful breasts.

Tip #14: He uses testimonials and "case histories" to support his claims. We all tend to believe what others tell us about their personal experiences. When you hear someone claim that product X has cured his cancer, arthritis or whatever, be skeptical. He may not have actually had the condition he names. If he did have the condition he names, his recovery most likely would have occurred without the help of product X. (Most conditions recover with just the passage of time.) Establishing

medical truths requires careful and repeated investigation—with welldesigned experiments, not reports of what people *imagine* might have taken place. That is why testimonial evidence is forbidden in scientific articles.

Symptoms which are psychosomatic in origin are often relieved by any product which is taken with the suggestion that it will relieve the problem. Most headaches and minor aches and pains will respond to any enthusiastically recommended nostrum. For these problems, even physicians may prescribe a placebo. A placebo is a substance which has no pharmacological effect on a normal person, but is given merely to satisfy a patient who supposes it to be a medicine. Sugar tablets and vitamins (such as B₁₂) are commonly used in this way.

Placebos act by suggestion. Unfortunately, some physicians, like most laymen, really "believe in vitamins" beyond those supplied by a good diet. Those who share such false beliefs do so because they confuse placebo action with cause and effect.

Talk show hosts give quacks a tremendous boost when they ask them, "What do all the vitamins you take do for you personally?" Then, millions of viewers are treated to the quack's talk of improved health, vigor and vitality—with the implicit point: "It did this for me. It will do the same for you." A most revealing testimonial experience was described during a major network show recently which hosted several of the world's most prominent promoters of nutritional faddism. While the host was boasting about how his new eating program had cured his "hypoglycemia," he mentioned in passing that he no longer was drinking "20 to 30 cups of coffee a day." Neither the host nor any of his "experts" had the good sense to tell their audience how dangerous it can be to drink so much coffee. Nor did any of them suggest that some of the host's original symptoms might have been caused by caffeine intoxication.

Tip #15: He'll offer you a vitamin that isn't. With vitamins so popular, why not invent some new ones? In 1949, Ernst T. Krebs, M.D., and his son, Ernst T. Krebs, Jr., patented a substance which was later called pangamate and trade-named "vitamin B-15." The Krebs' are also the modern developers of the quack cancer remedy, laetrile, which has been marketed in recent years as "vitamin B-17."

To be properly called a vitamin, a substance must be an organic nutrient which is necessary in the diet; and deficiency of the substance must be shown to cause a specific disease. Neither pangamate nor laetrile is a vitamin. Pangamate is not even a single substance but is a mixture of synthetic ingredients. Laetrile contains six percent cyanide by weight and has poisoned people. Pangamate is also known as pangamic acid. It is being promoted through the media for use against a wide variety of conditions including heart disease, aging, fatigue, diabetes, cancer, glaucoma, alcoholism, schizophrenia, hepatitis, allergies and breathing problems. There is no scientific evidence to support these claims and it is illegal to market B-15 for the treatment of any condition. A recent experiment has shown that pangamate can cause mutations in bacteria—which means it may also cause cancer in humans.

Tip #16: He espouses the "Conspiracy Theory" and its twin, the "Controversy Claim." The quack claims he is being persecuted by orthodox medicine and that his work is being suppressed. He claims that orthodox medicine or the AMA is against him because his cures can cut into the incomes doctors make by keeping people sick. Don't fall for such nonsense. There is so much more medical business available than we doctors can handle that we import from other countries about as many doctors each year as we graduate from our own medical schools. Moreover, many doctors in health plans receive the same salary whether or not the patients in the plans are sick—so keeping their patients healthy reduces their workload but *not* their incomes.

The quack claims there is a "controversy" about facts between himself and "the bureaucrats," organized medicine and/or "the establishment." He clamors for medical investigation of "his" claims (ignoring the negative results of all past investigations). In reality, there is no fact controversy. The collision is between his misleading statements and the facts. The gambit, "Do you believe in vitamins?" is one way in which he tries to increase confusion. Everyone "believes in vitamins." The real question should be "Do you need additional vitamins beyond those in a well-balanced diet?" The answer is no.

Any physician who found a vitamin or other preparation which could cure sterility, heart disease, arthritis, cancer and the like, could make an enormous fortune from such a discovery. Not only would patients flock to him, but his colleagues would shower him with prizes and awards—not the least of which would be the taxfree \$190,000+ Nobel Prize!

Tip #17: He is legally belligerent. The majority of "nutrition experts" who appear on TV talk shows and whose publications dominate the "health" sections in bookstores and health food stores are quacks and charlatans. Why are they not labeled as such? Ralph Lee Smith, a former investigative reporter who became Associate Professor of Communications at Howard University, answered this question in the December 16, 1965 issue of *The National Reporter*. Writing in *The Vitamin Healers*, a

hard-hitting article which ripped the lid off Carlton Fredericks, Smith said it is the "question of libel":

A reputation for being legally belligerent can sometimes go far to insulate one from critical publicity. And if an attack does appear in print, a threat of libel action will sometimes bring a full retraction. Carlton Fredericks frequently threatens to take libel action against those who disagree with him. So assiduous has he been in this respect that he even writes threatening letters to physicians who have questioned his ideas in private correspondence.

If a "nutritionist" travels with a lawyer and threatens libel actions against those who disagree with him, he is probably a quack.

As Smith noted, the threat of a libel action can be particularly effective when made against scientific and scholarly publications, especially those which are sponsored by publicly supported societies and universities.

Dena C. Cederquist is Chairman of the Department of Foods and Nutrition at Michigan State University. In March 1964, she testified at the hearings on health frauds and quackery held by a U.S. Senate subcommittee: "My salary is paid by the State of Michigan to teach, and yet on advice of our lawyer at the University. I did not write a criticism of the book Calories Don't Count [by Dr. Herman Taller who was subsequently convicted of mail fraud, conspiracy and violating FDA regulations] for he said I would be liable and we simply could not afford this kind of thing." She further stated about a paper relating to food faddism, presented by Kenneth L. Milstead of the FDA to the American Dietetic Association in October 1962, that, "He submitted this paper first to the Journal of the American Dietetic Association and secondly to the Journal of the American Medical Association, and both organizations refused to publish it, a paper full of facts. They refused to publish it for fear of being hauled into court in one of those long, drawn-out law suits . . . , and so this very valuable bit of information which should have gone to all practicing dietitians in the United States-and could well have been read by all physicians, was not made available for publication."

The public feels that doctors should speak out against nutrition quacks because they have "nothing to fear" from a libel suit from a quack. Nothing to fear? Successful defense against a libel suit can take three years and cost the doctor \$10,000 or more. We need "Good Samaritan" laws to cover the cost of defending libel actions brought by quacks! We also need vigorous enforcement of the laws against malicious prosecution. Any

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physician or genuine nutritionist who is sued by a quack should consider a counter-suit for malicious harassment.

This writer was threatened in connection with the 1974 David Susskind TV show "The Vitamin Craze." Just before the show was taped, I was handed a nutrition book written by a velvet-suited, silky-voiced copanelist whom I had never heard of before-one Gary Null. After perusing it, I stated, "This book is garbage." Null immediately threatened me with a lawsuit if I repeated the statement. He told me he travels with two lawyers just to take care of people like me. Calling one of them over, he introduced us and asked his lawyer to watch me closely and hit me with a lawsuit if I said anything "out of line." Null told me he was "Director of the Nutrition Institute of America" and had 36 Nobel Prize winners on his board of directors. I replied that his Institute sounded like a quack "front" and that I did not believe it had 36 Nobel prize winners on its board. (Subsequent investigation proved that I was correct on both counts.) With this warm-up, we went on the air. It was a lively programone of the few in which the public heard immediate rebuttal of nutritional misinformation.

The Weakness of the Law

Anybody can state, in any medium of his choice, any false, misleading or deceptive health information he chooses. The First Amendment (freedom of speech) protects him against the consequences of the harm he does, unless the false information is on the label of a product or the fraud occurs in the course of a provable doctor-patient relationship. Thus, the U.S. Food and Drug Administration, which can act against misleading labels, has no jurisdiction over misleading books.

Can the Federal Communications Commission (FCC) or the Federal Trade Commission (FTC) attack nutrition misinformation via laws which require broadcasters to operate in the public interest as well as laws which require "truth in advertising"? The FCC usually acts only after receiving complaints, and *a public that does not know it is being misinformed cannot complain*. The FTC appears to act only against very gross forms of advertising deception or deceptive trade practice. It does not appear to act against subtle forms of misleading information, and many complaints it receives are shelved for "lack of agency manpower." Purveying deceptive misinformation for profit appears on its face to be a deceptive trade practice. The FTC should be able to move against those who profit from public appearances in which they purvey false, deceptive or misleading nutrition information. Why do the State Attorneys General not act? Isn't the presentation of misleading nutrition information perpetrating a fraud on the consuming public? If the First Amendment does not protect smut speech and writings which are alleged to injure mental health, why does it protect misleading nutrition speech and writings which can be proved to be harmful to both mental and physical health? When quack books were brought to the attention of the New York State Attorney General, however, he merely referred them to the FDA (which, of course, did not have jurisdiction over them).

The FDA has pointed out that excess vitamins can hurt you. How many Americans know this? How many preachers of nutrition gospel have ever mentioned this on a television talk show? This failure to mention should be prosecuted as negligence chargeable not only to the huckster, but also to his talk show host and sponsoring network. It also seems possible that the States and/or their courts can revise or interpret their "reckless endangerment" statutes to include reckless endangerment of public health by promotion of dangerous nutritional ideas. I also wonder whether the more dangerous of the quack's misrepresentations could be enjoined as a public nuisance. Perhaps a public-spirited prosecutor will try these approaches someday.

Under our civil laws, it may be possible for a private citizen to recover substantial damages if he relied on misinformation purveyed by the quack to the detriment of his health. He would need to establish that the quack had a duty not to mislead him. If a doctor recommends a remedy, he has a duty both to use care in selecting it and to warn of complications. If a patient is harmed because his doctor fails to do either one of these, he can sue for malpractice. Is it too much to expect that the unlicensed quack can be held responsible for the harm *he* does?

A recent California case has created a precedent which can be cited by anyone who has been harmed by following the advice of a nutrition quack when given in a broadcast. In *Weirum* vs. *RKO General, Inc.*, the Supreme Court of California upheld a jury verdict of \$300,000 against a radio station. The station had offered a cash prize to the first person who could locate a traveling disc jockey. Two teenagers spotted the disc jockey and tried to follow him to a contest stopping point. During the pursuit, one of the cars was forced off the road, killing its driver. The jury found that the broadcast had created a foreseeable risk to motorists because its contest conditions could stimulate accidents. Many radio and television stations which broadcast nutrition quackery have been put on notice by scientists that they are creating an unreasonable risk of harm. Such stations might have serious difficulty defending themselves against suits by injured listeners.

When the charming quack does have an interest in a vitamin company, you can be sure that the labeling of his products makes none of the health benefit claims which he makes on the air or in his publications. This is because our laws forbid nutritional misinformation or outright lies only in connection with the sale of products. One way to find out whether someone on the air or in a book is telling the truth is to send him a label from a bottle of a vitamin preparation he sells. Attach the label to a sheet of paper stating the claims he makes for the product (in positive terms, such as "This preparation will cure the following illnesses ____."). Ask him to sign the statement and return it to you with the label still attached. If he does not do so, you may assume that he is afraid that his signature on *labeling* can get him prosecuted for false statements.

Quacks project an aura of sincerity and public interest. They spout (unprovable) "case histories" and tales of personal experience. They cite sloppy research as "the great work of great men." Yet their deceptions dominate the media.

The food quack benefits only himself, collecting large fees for his public appearances, publications or "consultant" status to health food and vitamin companies which he often controls. The public is not only milked financially (for more than a billion dollars a year), but may also suffer damage from vitamin overdosage and from seduction away from proper medical care.

There is nutritional deficiency in this country, but it is found primarily among the poor, particularly among those who are elderly, are pregnant or are small children. These groups need to have their diets improved. Their problems will not be solved by the panaceas of the huckster, but by better nutritional practices. The best way to buy vitamins and minerals is in the rational combination packages provided by nature: the "basic four" of (1) fresh fruits and vegetables; (2) meats, fish and fowl; (3) whole grain or enriched bread and cereal; and (4) milk products. A cheeseburger with lettuce and tomato contains the basic four.

The basic rule of good nutrition is moderation in all things. Contrary to the health hustler's claim that "It may help," his advice not only does not help, but may harm—both your health and your pocketbook. He will continue to "rip off" the American public, however, until the communications industries develop sufficient concern for the public interest to expose his quackery. And if the media cannot develop adequate social conscience on their own, they should be forced to do so by stronger laws and more vigorous law enforcement.

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Recommended Reading

- Realities of Nutrition, by Ronald Deutsch. (Bull Publishing Co., P.O. Box 208, Palo Alto, CA 94302, 1976.)
- Food. A booklet produced by the U.S. Dept. of Agriculture which gives practical tips for selecting a balanced diet. (For free copy, order publication #G-228 from the Consumer Information Center, Dept. 693-G, Pueblo, CO 81009. Additional copies are \$3.25 each from the Supt. of Documents, U.S. Govt. Printing Office, Washington, DC 20402.)
- Vitamin-Mineral Safety, Toxicity, and Misuse. A report by the National Nutrition Consortium. (\$2.50 from the American Dietetic Association, 430 N. Michigan Avenue, Chicago, IL 60611.)
- Megavitamin and Orthomolecular Therapy in Psychiatry, Task Force report of the American Psychiatric Association. (\$3.00 from Publications Services Division, APA, 1700 N. 18th Street, N.W., Washington, D.C. 20009.)
- Recommended Dietary Allowances, National Academy of Sciences. (\$6.00 from Publishing Office, National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418). 1980 edition.
- List of Nutrition Books, Recommended, Recommended for Special Purposes, Not Recommended. Reliable guide to nutrition books. Compiled by Chicago Nutrition Association. (\$2.00 from Chicago Nutrition Association, 8158 South Kedzie Avenue, Chicago, Illinois 60652).
- Nutrition Misinformation and Food Faddism. A collection of 17 papers published by the Nutrition Foundation (\$2.50 from Nutrition Foundation, Office of Education, 888 17th Street, N.W., Washington, D.C. 20006).

The Make-Believe Doctors

Freddie Brant, alias Reid L. Brown, M.D., might still be carrying on his thriving practice had he not run afoul of the computer.

BY

ROBERT C. DERBYSHIRE, M.D. Secretary-Treasurer New Mexico Board of Medical Examiners Past-President, Federation of State Medical Boards of the United States Let me tell you a true story. Freddie Brant was born in Louisiana in 1926 and was 43 years old at the time of my tale. Reared in poverty, he stopped school after the fifth grade. During World War II he was in the Army for four years. After discharge he found that jobs were scarce for a man with only a fifth grade education; so he joined the paratroops. In 1949, along with a fellow paratrooper, he was sentenced to seven years in the penitentiary for bank robbery. Working in the prison hospital, he began his "medical education." Finally released, he continued his education by working for four years as a laboratory and x-ray technician for Dr. Reid L. Brown of Chattanooga, Tennessee. There he picked up not only more medical lore but also the diplomas of his employer.

He was now ready to begin the practice of medicine. Assuming the identity of Dr. Reid L. Brown, he moved to Texas where he obtained a license by endorsement and served for three years on the staff of the State Hospital at Terrell. He then resigned and took his wife on a vacation trip. Stopping for a Coca Cola in the small village of Groveton, Texas, he treated the injured leg of a child. He found that Groveton had long been without a doctor and its people were clamoring for medical care. "Dr. Brown" soon became established as the town physician and as a community leader.

Freddie Brant, alias Reid L. Brown, M.D., might still be carrying on his thriving practice in Groveton, Texas, had he not run afoul of the computer. By coincidence he ordered drugs from the same pharmaceutical firm in Louisiana that was used by the real Dr. Reid Brown. The computer gagged when it discovered orders on the same day from physicians with identical names in Groveton and Chattanooga. Following an investigation, Freddie Brant was charged with forgery and with false testimony that he was a doctor.

The exposure of Freddie Brant caused great consternation in Groveton. But its citizens rallied around their "doctor." Many were the testimonials to his skill. According to one news report, the list of his patients included some of Groveton's leading citizens as well as farmers, loggers and welfare patients. The druggist said that many cases of hardship were caused by the arrest of Freddie. A particularly glowing testimonial came from a farmer who said, "My wife has been sick for 14 years. We've been to doctors in Lufkin, Crockett and Trinity, and he did her more good than any of 'em. She was all drawed up, bent over, you ought to have seen her. He's brought her up and now she's milking cows and everything."

The citizens of Groveton remained loyal to Brant. A grand jury refused to indict him. Authorities then brought him to trial in another county for perjury, but the case ended in a hung jury with eight members voting for acquittal. According to *Chicago's American* (7/26/68), justice was thwarted because of a "lava flow of testimonials from Groveton and Terrell to the effect that Freddie Brant was a prince of a medical man, license or no license." In an unkind cut, the same paper said that the people of Groveton should have known that Reid Brown was not a doctor because he did too many things wrong. For example, he made house calls for five dollars and charged only three dollars for an office visit. He approved of Medicare and would drive for miles to visit a patient, often without fee if the patient was poor. Besides, his handwriting was legible.

What were the secrets of Freddie Brant's success as an impersonator? They were many, but the main ones were his readiness to refer any potentially complicated case to nearby towns, a personality which inspired confidence, and a willingness to take time to listen to his patients.

Freddie Brant is only one of the many medical impostors whose records are on file at the American Medical Association. My study of these makebelieve doctors is based upon both my experience and an analysis of the AMA's records. I have examined their backgrounds, their routes to practice, their medical documents, how long their hoaxes were successful, how they were exposed and how the public reacted to their exposure. From 1969 through 1978, I found 47 impostors who were "successful" enough to be worthy of study. This figure does not include the many fly-by-night impersonators who pretend to be physicians in order to cash worthless checks or engage in confidence games. Most of these are exposed within a few hours or days.

Let us take a look at the typical successful impostor. His medical background might consist of a tour of duty as a medical corpsman in the Army or as a pharmacist's mate in the Navy. He might have served as a hospital orderly or as a laboratory technician. He might have obtained his medical education as a patient in a mental hospital. The sole medical background of one was service as an elevator operator in a hospital. By associating with physicians, the impostor learns enough medical jargon to fool the unwary. Our impostor must also have a good memory and a persuasive manner. Curiously, I have found no records of women medical impostors.

A surprising number of impostors have no medical backgrounds whatever. Anthony Vecchiarello and his brother, Louis, were two such practitioners. Together with Marino J. Maturo, they operated a thriving clinic in Washington, D.C., for five years before the authorities finally caught up with them. Anthony had been a mechanic. Louis, among other things, had sold burglar alarms. Maturo, having dropped out of the University of Miami after failing chemistry, zoology, mathematics and Italian, had worked as an x-ray technician in Florida. All three had obtained full medical licenses using forged Mexican credentials which had never been checked by the authorities. Two of them had also been admitted to membership in the district medical society which soon began to refer patients to them.

State Hospital Opportunities

State hospitals, particularly in recent years, have provided a pathway to fraudulent medical practice. I have found six examples, including the case of Freddie Brant. One of the most fascinating is that of Oscar Monte Levy, a man with no medical background who was hired as superintendent of a state mental hospital in West Virginia. Levy's credentials were based solely upon a diploma stolen from a Dr. Menendez, a graduate of the University of Havana Medical School. This man might have enjoved a long and profitable career as a hospital administrator. But he resigned after nine months and moved to another region where he obtained a position as staff psychiatrist in a state hospital mainly on the basis of his recommendations from the first state. However, his second career was cut short when his new colleagues became suspicious because of his manner and exposed him. Obviously he committed a grave error by resigning his high position as a hospital superintendent. I could not learn his reasons for doing so. Possibly he became tired of administrative duties and yearned to return to clinical psychiatry.

Whatever mild amusement I derived from the story of "Dr. Menendez" soon turned to dismay as I read on. The director of the Department of Health in the state in which Menendez was first employed, whose duty it was to pass upon the credentials of this impostor, said that the state hospital was hiring some recognized foreign doctors on a temporary basis. Obviously his examination of these credentials was entirely superficial.

When Levy was finally exposed, he was sentenced to three years in prison—not for impersonating a doctor, but for what the authorities considered a more serious crime. He had been so indiscreet as to marry a West Virginia girl while still wed to a woman from New York and was therefore guilty of bigamy.

While the authorities in neither state should have been taken in by "Dr. Menendez," there might be extenuating circumstances, all too familiar to members of boards of medical examiners. First, there are pressures in this country to resettle foreign physicians, particularly those who are thought to be fugitives from communism. Second, there is a universal shortage of qualified applicants for staff positions in state hospitals so that standards are lowered to permit physicians unqualified for regular licenses to fill these positions. Third, highly placed politicians often intercede for them. These three factors combine to place such pressure on boards of medical examiners that it is only remarkable that they resist as effectively as they do.

Many hospitals are so desperate to fill their staff positions that they will put almost any warm body into a white coat. In 1974, Weiss and his associates recognized this as a national scandal in *Foreign Medical Graduates and the Medical Underground*, published in the *New England Journal of Medicine*.¹ In this article, the authors express grave concern that many foreign graduates who are unqualified and unlicensed are functioning as doctors while pretending to be "medical technicians" or "surgical assistants." Hospitals that allow this are violating their state medical practice acts and are guilty of fraud and deceit. Equally shocking is the fact that some states permit unlicensed foreign graduates to care for patients under special provisions of state laws—a legal form of fraud. This happens most often in state mental hospitals, whose unfortunate patients may not be able to evaluate the care they receive.

In Warm Bodies in White Coats, my 1975 study of state laws, I found that 15 states allow unlicensed foreign graduates to be admitted to hospital staff membership.² Twelve of these states do not even require the physician to be certified by the Educational Council for Foreign Medical Graduates, a step which is preliminary to licensure. The ultimate lowering of standards occurs in one state which allows its board of medical examiners to issue an institutional permit even though the applicant is unable to show that he graduated from medical school. In view of this widespread sacrifice of quality for political expediency, it is surprising that I was able to find only six impostors who entered practice by way of state hospitals. No doubt there have been others who were undetected.

Length of Practice

How long do impostors flourish? At least 22 are known to have practiced for more than a year. There were two whose hoaxes lasted for 20 years. Perhaps the all-time champion was "Dr. J. D. Phillips" who practiced medicine in various places for 30 years. According to an article in *Coronet* (August, 1953), he fooled not only patients in 11 states, but also the United States government, several county and state health departments, and dozens of respectable physicians, nurses and administrators in various hospitals. Said *Coronet*, "Rarely has a faker been unmasked

¹ New England Journal of Medicine, 290: 1408-1413, 1974.

^a Journal of the American Medical Association, 232:1034-1035, 1975.

more often and less permanently. Certainly no one has gone to so much trouble to remain loyal to his profession." His medical knowledge was gained from the doctor in his home town with whom he made rounds. Said "Dr. Phillips" without undue modesty, "So I went around with him and absorbed it all. I have a photographic memory and am not exactly dumb."

"Dr. Phillips" served time in various penitentiaries for passing bad checks and for defrauding hotels. He used these periods to study in the prison libraries. Finally his background was so firm that he was entrusted with surgery at the Maryland State House of Correction. According to the physician in charge, he was "literally a good resident." At some time during this period he was able to steal a medical license from a physician long inactive because of illness. He then had the nerve to send an affidavit to his adopted medical school that he had lost his M.D. diploma. He was promptly sent a duplicate.

The downfall of "Dr. Phillips" was finally brought about by his greed and an alert insurance agent. He was involved in an automobile accident in which he suffered injuries to his neck and arm. He was sued for \$600. He countered with a \$40,000 suit, demanding \$35,000 to compensate him for his inability to practice medicine. The insurance agent, disturbed by Phillips' dirty fingernails, questioned his story and he was exposed in court. His medical career is now at an end as he was sentenced to 15–20 years for perjury.

How are impostors exposed? Obviously those whose medical careers last only a few months are so inept that they give themselves away. But exposure of the experts has proven difficult and often comes about by accident. Maturo and the Vecchiarello brothers were exposed by chance because of an investigation by the U. S. Attorney in Washington. While looking into an unrelated matter, he became suspicious of flaws in their forged Mexican credentials. Further investigation resulted in their indictments for fraud. But the matter did not end there. The three impostors were so brash that they obtained a federal court order which allowed them to continue in practice until they were finally brought to trial and convicted six months later. Needless to say, the trial caused great embarrassment to the licensing authorities of the District of Columbia and stimulated them to adopt more stringent procedures for the issuance of medical licenses.

The notorious Dr. Frank, responsible for at least five deaths in Chicago, was exposed by a nurse of whom he became enamored. She often made house calls with him and noticed that he was unsure about the doses of drugs and mispronounced some medical terms. His downfall came about because he became too ardent in wooing the nurse and tried to choke her when she resisted his charms. She investigated his credentials, found that he was not a high-ranking graduate of Northwestern University as he claimed, and reported him to the police. When they arrested him, they found a gun and a large quantity of morphine in his doctor's bag. He was sentenced to three years in the penitentiary for illegal possession of drugs.

Surprisingly few impostors have credentials in the form of medical school diplomas or state medical licenses. Of the 47 impostors in my study, only 12 had bothered to steal or forge such credentials. This oversight is amazing because there is a well known firm in California that specializes in producing phony documents. At least one impostor was familiar with this company. He not only ordered complete medical credentials, but also turned himself into an author. He removed the pages from a book and had them rebound with his name on the cover. His fatal mistake was in failing to realize that he might be asked by a colleague to discuss its contents!

The attitude of some impostors seems to be, why bother to obtain phony diplomas when they are not necessary? I am astonished at the number of hospitals which have accepted applicants for positions without first examining their credentials. This is not confined to state hospitals. A glaring example is the case of "Dr. David William Baker" who claimed to have graduated from Temple University Medical School in 1962. From a state hospital in Idaho he went to Seattle where he worked in two hospitals for a total of three months. For two months he worked in the emergency room of one hospital. According to a Seattle newspaper, a hospital spokesman said that Baker had been hired on the recommendation of a doctor who had known him when he worked at the blood bank. The hospital detected the impostor only when it learned that the AMA had sent out a circular saving that a man named Baker was posing as a doctor. The administrator's justification for employing him was that Baker claimed his credentials were in transit and he was preparing to appear before the state licensing board. Hospital officials weakly contended that Baker was not a member of the staff but worked in the emergency room where he was always under the supervision of another physician.

Attitudes Toward Impostors

As I studied case histories, I was struck by how many people were gullible enough to lend money to impostors. I was astonished by the readiness of bankers, whom I had always regarded as paragons of caution, to help impostors start their medical practices. In one instance a physician was the victim when he lent an impostor a considerable sum. Also fair game are citizens of many small towns with desperate shortages of doctors who will lionize any presentable individual who claims to be a physician.

Once he has begun to practice, of course, the impostor relies on the fact that most patients who do not look seriously ill will recover by themselves. This enables him to fool many people into thinking that he has given them treatment. If he is friendly, if he shows interest and compassion, and if he quickly refers to specialists those patients who do seem quite ill, the impostor is likely to develop a loyal patient following. In fact, many people will come to "swear by him." So much so that even when he is exposed as a fraud, they will defend him and be grievously hurt because the authorities have removed their "trusted family physician."

Typical is the case of the fraud who, for some six years, successfully practiced in a small town in New York State. His following of devoted patients was large. He even won the esteem of his colleagues who frequently called upon him for consultations. When he was finally exposed by the Board of Medical Examiners, the anguished cries of his devoted followers could be heard all the way across the Hudson River. They even circulated petitions to prevent him from being banished. Nevertheless he was brought to justice and convicted of fraud.

The reactions of these people and of those in Groveton, Texas, to the unmasking of Freddie Brant are by no means isolated examples. Such reactions are particularly prevalent in small towns. One can only speculate as to why these victims of hoaxes adopt such defensive attitudes. Some, like the victims of other confidence games, are embarrassed about being taken in. Some may feel a need to justify their faith in the impostor to avoid the appearance of stupidity in the eyes of their neighbors. Others may believe they have actually been helped.

Another difficulty in exposing medical impostors stems from the indifference of the district attorneys. Apparently these law enforcers are not enthusiastic about pursuing people whom they regard as petty criminals, and this is how impostors are regarded in most states. Only in Arizona, California, Florida, Kentucky, New Mexico and Rhode Island is the practice of medicine without a license defined as a felony. In the other states it is a misdemeanor. I remember one instance in which my board of medical examiners discovered a man who was practicing without a license. On two different occasions the investigator for the board obtained receipted bills, copies of prescriptions, and samples of drugs the man had been dispensing, certainly enough evidence for the conviction of this

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fraud. But the district attorney showed no interest in prosecuting him. It was not until some two years later, *after the impostor had been responsible for the death of a patient*, that the state police arrested him on a charge of manslaughter for which he was convicted and sentenced to five years in prison.

The attitude of newspapers towards some impostors is interesting. While they may make every effort to report the facts accurately, their stories sometimes contain a strong underlying note of amusement. In the case just cited, after the impostor had been arrested and charged with manslaughter, the local paper printed a feature in its Sunday edition based upon an interview in the jail cell of the felon. This took the form of a human interest story which depicted the impostor as an amusing eccentric and all but ignored the charge of manslaughter.

Serious Danger

Up to a point, many of the tales of impersonation *are* amusing, provided the reader is not one of the authorities who has been duped. But the time must come when one has to be serious, particularly when one thinks of the dangers that impostors pose to the public. Freddie Brant, alias "Dr. Brown," tried to justify his conduct by saying, "*I never lost a patient*." Didn't he? How can he know? Another famous impostor, M. L. Langford of Jasper, Missouri, pointed out in his defense that he performed no surgery and referred any patient who might have complications. But could he always recognize complications or foresee them? Impostors *do* kill people, albeit not always as dramatically as the notorious Dr. Frank who was implicated in five deaths in Chicago. He was a former mental patient who persuaded a physician to help him obtain a listing with a medical referring service. He then took over the practice of a vacationing doctor. (See the *Chicago Tribune*, 12/3/58.)

The harm caused by make-believe doctors is not limited to physical trauma. This was brought forcibly to my attention by a resident of an Eastern city—whom I shall call Mr. A—who sent me the following account. In 1977 he read a newspaper account of an impostor named William J. Lott who practiced for 30 days in the Maryland Penitentiary. The story also mentioned a similar case, that of Freddie Brant, alias Dr. Reid L. Brown. This news jolted Mr. A because he was a former patient of Brant but had no idea that he was an impostor. In 1965, when Mr. A was 16 years old, he had been truant from school. His stepfather decided he was insane and managed to have him committed to the State Hospital in Terrell, Texas. There he was under the tender care of "Dr. Reid L. Brown," who prescribed a variety of drugs and subjected him to electro-

shock therapy. "Dr. Brown" also signed various legal documents concerning his diagnosis. Mr. A is now desperately trying to have the diagnosis of insanity expunged from the record and asked for my help. All I could do was to refer him to a good lawyer.

A natural question is, what motivates these people to impersonate doctors? The immediate answer of the cynic is that they do it to make money. While it is true that some yearn for the imagined rich and easy life of the doctor, this is not the only answer. Some envy the authority and social position of the doctor. Others are mentally deranged, many having served terms in mental hospitals. Freddie Brant simply said, "I always wanted to be a doctor." Robert Crichton, in his fascinating book The Great Impostor (Random House, 1959) describes the career of Fred Demara, Jr., who adopted many identities including that of Trappist monk and Surgeon Lieut. Joseph Cyr of the Royal Canadian Navy. In the latter identity, he performed heroic feats of surgery aboard a destroyer before his final exposure. According to Crichton, psychiatrists have labeled the impostor a borderline schizophrenic with a document syndrome and something like histrionic genius. Demara expressed himself this way: "I am a superior sort of liar. I don't tell any truth at all, so my story has a unity of parts, a structural integrity. It sounds more like the truth than truth itself."

Prevention

So far I have confined myself to the methods of medical impostors. Now let us look at how they might be controlled. As with disease, the best strategy is obviously prevention. Several agencies are responsible for the proper screening of physicians. The most important of these are the state boards of medical examiners, the medical societies and the hospitals. The primary duty of the licensing boards is to ensure that all who are licensed are qualified. More careful screening of applicants for positions in state hospitals should be carried out, preferably by the boards. Documents must never be accepted on faith! No matter how convincing an applicant appears to be, his documents must be verified at their sources. The investigations should be systematic, beginning with insistence upon completion of a detailed application blank which must include a notarized statement from the applicant that he is indeed the person whose credentials he is presenting. It is important that the physician be required to present at least two photographs, one to be affixed to the application. the other to be filed for future reference in case of a question of identity. As an added precaution, the board might insist that the photograph be affixed to the application form before it is returned to the medical school for certification or, in the case of licensure by endorsement, to the board issuing the original license. Thus his photograph can be compared with photos filed previously.

Another important method of preventing licensure of impostors is the use of the personal interview. In states which license large numbers of physicians it might be difficult for the administrative officer to interview all of them. In these states the interviews could be divided among the members of the board. Although opinions differ about the value of the interview, an experienced person should be able to learn much by observing a candidate. He can train himself to recognize certain danger signals such as poor personal grooming, vague answers to specific questions concerning medical subjects, and failure to identify properly professors in the school from which the applicant claims to have graduated.

Still another method of detecting impostors is the requirement that all applicants for licensure be fingerprinted. At present, only a few medical boards require this. Many boards feel that the professional man should not be embarrassed by such an indignity. But this is not as drastic a requirement as many think and most applicants submit to it with good grace. After all, fingerprinting is required in applications for many jobs, particularly those associated with the federal government. Robert Sprecher, writing about licensure problems in the legal profession (Federal Bulletin, Volume 55, pages 188-200, 1968), made an interesting observation. The mere requirement that applicants be fingerprinted will encourage them to admit to previous conviction of crimes. For example, bar examinations were given in Michigan and Illinois at the same time. Michigan had 281 applicants, Illinois, 273. Both states asked applicants whether they had ever been charged with a crime or arrested. In Michigan, where fingerprints are required, 28 people (10 percent) admitted to previous arrests or convictions. In Illinois, which did not require fingerprints, only two (less than 1 percent) made such admissions. Obviously, fingerprinting is a deterrent to false statements.

Several years ago, when the New Mexico Board of Medical Examiners first required fingerprinting, the cards had to be sent through the local chief of police for processing by the Federal Bureau of Investigation. The chief's response to my request was one of tolerant amusement: "If the doctor wants to play detective, I suppose we must help him. But I am sure we will not turn up anything." Two weeks later, having received some 40 FBI reports, he appeared at my office waving two dossiers excitedly. One applicant had a record of nine arrests in New Jersey for crimes that ranged in seriousness from petty larceny to armed robbery. The second had served five years in the penitentiary of another state for embezzlement. While this incident did not involve physician impersonators, it does show what can be accomplished by requiring fingerprints of every applicant for licensure. Impostors frequently have criminal records. Even such a smooth confidence man as Freddie Brant might have been deterred or exposed by this method.

If the practice of medicine without a license were a felony instead of a misdemeanor, as it is in most states—and if district attorneys could be persuaded to take their duties more seriously—some impostors might think twice before establishing their practices.

Finally, how can impostors be detected after they have established their practices as physicians? Until recently, the most authoritative source of information about physicians has been the Department of Investigation of the American Medical Association. Its files kept complete biographical records of all physicians from the time they first entered medical school until they died. If they dropped out of medical school, this was also noted. After graduation, up-to-date records were kept of internships, residencies, types and places of practice, and of any difficulties physicians might have had with the law, their boards of medical examiners and medical societies. Records of foreign medical graduates who came to this country to practice were also kept. Furthermore, at the request of a hospital, medical board or medical society, the Department of Investigation was able to conduct a complete search to determine whether or not a person was really a physician. A typical investigation involved reference to the active file, the new name file, the AMA directory, and the medical student drop-out file, in addition to a meticulous examination of at least nine other directories. If the suspect's name could not be found by such an exhaustive investigation, one could be certain he or she was not a doctor. Many an impostor was brought to light by such a search.

On May 1, 1975, as an economy measure, the AMA abolished its Department of Investigation and dispersed its functions among other departments. In view of the Investigation Department's many years of excellent service, I have misgivings about its fragmentation. Will this prove to be false economy?

Though medical impostors are rare, and some regard them with amusement, we must not forget that they are con men and potential killers. Medical examining boards, hospitals, medical societies and concerned individuals must take every precaution to keep their number to a minimum.

7

Avoiding the "Marginal" Medic

"Quacks are the greatest liars in the world except their patients." —Benjamin Franklin

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BY

In 1975, at the age of 75, Dr. Max Jacobson lost his license to practice medicine in New York State. Nicknamed "Dr. Feelgood," this man had been practicing in New York City since coming to this country 30 years earlier. He was found guilty of giving injections which included significant amounts of amphetamines ("speed"). During an eight year period, Dr. Jacobson purchased a quarter of a million syringes and twice as many hypodermic needles. Dr. Jacobson often gave his shots to patients without examining them. He also took them himself. And he gave some patients drugs to take home for self-injections. One such patient, the well-known photographer Mark Shaw, died of an overdose of amphetamines.

What was striking about Dr. Feelgood's practice was that it included many of the brightest and most accomplished people of our time—"heads of nations, members of the Kennedy clan, and some of the most famous names in show business," according to a report in *Medical World News* magazine. To convince skeptics, the report included a photograph of Dr. Jacobson hiking in Florida. His companions in the picture were President John Kennedy, Kennedy's Harvard roommate Charles Spaulding, and Prince Stanislas Radziwill. The photographer had been Mark Shaw.

The Rise of Medical Standards

Fortunately, very few physicians nowadays are quacks. This wasn't always the case, however. Before 1910, there were more than 300 "medical schools" in the United States. But most were "diploma mills," from which an M.D. degree could be obtained by little more than attending a few lectures and paying a fee. Then the landmark *Flexner Report* was issued which boldly outlined the deficiencies of American medical education. The report, together with Abraham Flexner's vigorous personal efforts for reform, resulted in the closing of 80% of the then-existent medical schools. High standards for medical training were developed and so was an accreditation system to insure that medical schools follow these standards.

Counting pre-medical education, medical training now takes from nine to fifteen years. Both the length and the intensity of this training make it very unlikely that an aspiring "quack" could complete it.

Once in practice, most physicians are subject to "peer review" by their colleagues. This process is most significant for physicians who practice in accredited hospitals. In such hospitals, "utilization" committees review the management of patients to determine if their treatment was necessary and proper. Pathologists carefully examine each bit of tissue removed during surgical operations to see if it was diseased. A practitioner who is not up to standard will hear from his colleagues and could have his hospital privileges curtailed if he does not mend his ways.

Outside of hospitals, medical societies can examine complaints primarily involving unethical conduct—which are brought to their attention. A physician who does not adhere to the ethical standards required by his local medical society can be expelled.

Unfortunately, however, neither hospitals nor medical societies can insure that all practicing physicians are competent and ethical. For one thing, physicians tend to have a sympathy for each other which sometimes interferes with the forcefulness of self-policing. For another, it is possible for physicians to practice medicine without belonging either to a medical society or to the staff of an accredited hospital. If a doctor you consult belongs to neither, ask him to explain why. If he was expelled, watch out! If he never joined, make sure his reason makes sense to you.

State boards of medical licensure have the ultimate power to stop errant physicians from practicing altogether. But most state boards do not have adequate funding or tough enough laws to do this job properly (see Chapter 6).

Though I have pointed out some of the problems that the medical profession and the government have in protecting you from marginal practitioners, I would not like to leave you feeling alarmed. Very few practicing physicians are marginal and fewer yet are outright quacks.

Avoiding the Outright Quack

Long ago, Benjamin Franklin observed that "Quacks are the greatest liars in the world except their patients." Maybe that's why they are so difficult to prosecute. As I think about "Dr. Feelgood," I can't help wondering whether his patients were so ignorant or so blinded that they never suspected him. And his magic shots, available nowhere else, that made them feel just terrific—weren't they too good to be true?

Quacks are the despair of "straight" physicians. They are often charming and project a feeling of greater-than-usual concern. A charismatic quack can produce a legion of adoring clients to testify on his behalf. But certain behavior should make you suspect that a doctor has *abandoned* medical science:

-If a doctor claims to have a special machine or formula. (Dr. Jacobson injected multiple sclerosis patients with a homogenate of animal brain and marrow and human placenta.)

—If he makes blanket statements that surgery, x-rays or drugs do more harm than good.

—If he claims that other doctors are persecuting him or are afraid of his competition.

-If he uses testimonials from patients or flamboyant advertising to build up his practice.

If you encounter any of these traits, not only should you seek another doctor but you should also report your experience to your local medical society and your state board of medical licensure. What you observed may not merely be poor medical practice—it may be illegal.

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The above list should help steer you clear of those few doctors whose involvement with unproven methods is extreme. It is important to realize, however, that quackery is not an "all-or-none" phenomenon. A doctor who is otherwise competent may have a misguided belief in a particular medication or procedure. For this reason, it would be unwise to judge a physician's competence solely on the basis of any one action he takes.

Nor is it possible to construct a list of what would be "proper" treatment for each and every illness. Doctors are alarmed at what has been termed the "tyranny of uniform standards"—the idea of a chart or "cookbook" to follow in treating each ailment. For under such a system, physicians could not use their judgment to tailor treatment to the individual patient. Moreover, there are areas of medicine which are *genuinely* controversial.

Despite these difficulties, is it possible to detect when a doctor practices a generally sloppy or unscientific brand of medicine? Or that he is a fuzzy thinker in whose hands you would be taking an unnecessary gamble? I think so—to some extent. Your doctor's management of certain common clinical situations can tell you a lot about his thinking.

Infections And Their Management

Infections can be caused by many different kinds of germs. Some germs can be killed or weakened by antibiotics and some cannot. Generally, bacterial infections will respond to antibiotics. "Strep throat" is a common example. Viral infections will usually not be susceptible to antibiotics, though there are exceptions. The common cold is an example of a viral infection which will not respond to antibiotics.

The "ideal" way to treat an infection is to identify the germ which is causing it and prescribe an antibiotic which is specific for that particular germ. A doctor can often tell which germ is infecting you by the pattern of your illness. He can be more certain of his diagnosis, however, if he takes a *culture*—whereby your germs are grown in a way that they can be

Avoiding the "Marginal" Medic

positively identified. "Sensitivity" tests can then help to determine which antibiotic is likely to be most effective.

The medical school professor, speaking as a pure scientist, may want all infections cultured. But the doctor who treats many patients must be more concerned with the cost of his services, not only to individual patients but also to society's total health care budget. Where his clinical judgment can be accurate most of the time, the clinician will ask himself how much extra cost is justified for a slight increase in accuracy.

The wise physician must be prepared to use whatever tests are necessary in those conditions which require greater diagnostic precision. Bladder infections in women illustrate this point. It is usually not necessary to obtain a culture with the first such infection—particularly if the patient is a young woman who has just begun sexual activity. If the infection keeps coming back, however, cultures should be obtained to insure precise use of antibiotics. It may also be wise to obtain a kidney x-ray (known as an intravenous pyelogram) to rule out possible underlying causes of the infections.

Thus, in the overall management of infections, the important consideration may not be whether a doctor takes a culture or uses an antibiotic in a particular case. Rather, it is whether he has carefully thought out his methods of working. The wise physician will use cultures to advantage and will use antibiotics *selectively*. Complete avoidance of cultures and routine use of antibiotics for treating ordinary colds are signs of fuzzy thinking.

The Use of Tranquilizers

Articles in the medical literature point to a worrisome increase in the use of tranquilizers. Some reports, however, suggest that most patients who receive them have serious and sometimes disabling symptoms.

Many people have strong feelings on this subject. Some think it is wrong to depend upon medications. Others want quick relief. The person who simply swallows tranquilizers is missing the chance to learn about what makes him nervous and what other ways he can use to help himself. Similarly, a doctor who prescribes tranquilizers too readily—without trying to understand the nature of his patient's tensions—may be doing him a disservice.

The Use of Placebos

Placebos (sometimes referred to as "sugar pills") are substances which have no real effect on the body. Any benefits they confer are through the power of suggestion—a response to the idea that something is being done. Today it is rare for physicians to prescribe totally inactive drugs as placebos. The public is too sophisticated for this form of "psychotherapy." Instead, low doses of regular medications are likely to be used.

There are many situations where *scientific* treatment does not call for the use of medication. But some patients cannot accept such treatment. Unless they get a shot or a pill, they feel that the doctor "isn't doing anything."

Faced with such patients, ethical doctors are in a quandary. Should they give in to the patients' wishes and become unscientific physicians themselves? Or should they flatly refuse and worry that the patients will shop around until they land in the hands of a marginal or even quack physician? Either way, the doctor really can't win. It is often impossible even to debate the issues with a patient unless the doctor and patient have gotten to know one another and have developed a relationship of trust.

To illustrate the issues involved, consider the case of a married man who developed sexual impotence. This man was convinced that something serious must be wrong with his "glands." So he went to Dr. Z and pressed for a hormone shot. Dr. Z could simply have given the shot. But he did not. Instead, he performed a thorough physical examination and took a careful history.

It turned out that during a period of stress at work, the patient's potency had diminished to the point where he could barely have intercourse. Both he and his wife were modest people who found it difficult to discuss the subject of sex. The patient was ashamed of himself and afraid of "failing" again. His wife didn't want to seem forward by complaining. So they had stopped having intercourse for several months.

The physical exam revealed nothing to suggest a glandular disorder. Here, then, was a problem that was purely psychological. But when Dr. Z suggested that the patient discuss his doubts and fears with his wife, the man was crestfallen. So intense was his lack of confidence that he could barely imagine doing it. Eventually, Dr. Z and his patient struck a compromise. The doctor explained that no glandular deficiency existed, but if the patient still insisted, he would give him a hormone shot anyway. In turn, the patient promised to talk things over with his wife.

With the injection to bolster his confidence, the patient did speak with his wife. A month later, when he returned to the doctor's office, all was well. No more hormone shots were given or requested.

Some doctors might criticize the handling of this case for not being "100% scientific." But the patient was not deceived. Nor was the injec-

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tion used as a substitute for confronting the real issues. The placebo was used merely to gain the patient's cooperation. Suppose, however, that the doctor had put the patient on a series of injections after only a brief discussion. This would have reinforced the patient's fears and probably would have made him become dependent upon medication he didn't need.

There are purists who feel that the use of *any* placebo is quackery. But the better view is to look not only at *whether* a doctor uses placebos, but *why*, *how* and *how often* he uses them. The doctor who uses them judiciously, but who stresses their limited value, who tries to deal with the real problems of his patients, and who tries to wean his patients, is still practicing the art of good medicine. But the doctor who gives placebos frequently when they are not requested, who makes extravagant claims for them, or who makes patients dependent upon them, should be suspect. Such practices are unethical because they *create* a demand for placebos.

Throughout this book it will be stressed that patients are usually in a poor position to judge whether a given treatment has helped them—or whether they got better with time or experienced a placebo effect. Quacks capitalize on this difficulty by crediting *all* improvement to their healing powers. Physicians rarely *try* to mislead patients in this way, but sometimes do so inadvertently. Sometimes medications are marketed which are later shown to be ineffective. But some doctors who have seen patients improve while taking these medications may mistakenly conclude that they are effective. Confidence in a drug which does not work may thus result in its unknowing use as a placebo. So there is another aspect of placebo evaluation—does the doctor who prescribes a placebo know that he is using one?

Guarding against the use of outmoded treatment is one part of what physicians accomplish by undergoing "continuing education." This means reading current journals, attending conferences and doing whatever else is necessary to keep up with medical advances. *The Medical Letter* is one publication which provides an excellent discussion of the effectiveness of treatment methods. Whether your doctor reads it is one indicator of his interest in keeping up-to-date.

Fad Diagnoses

Just as there are fad treatments, there are also fad diagnoses. A few years ago, many nervous or tired people were said to have "adrenal insufficiency"—a serious glandular disorder that is actually quite rare. Not only were the vast majority of these people misdiagnosed, but they

were also treated with adrenal gland extract, a substance they didn't need and which is potentially harmful.

The search for a *magic* diagnosis goes on. Today, "hypoglycemia" (low blood sugar) is fashionable as a socially acceptable diagnosis for certain symptoms of nervousness or fatigue (see Chapter 12). "Low thyroid" is likewise unjustifiably diagnosed in many cases of fatigue. Real cases of these glandular disorders do exist, *but they are rare* and should be carefully checked by laboratory testing before the diagnosis is made. Interestingly, the few physicians who are "true believers" in these conditions simply diagnose them left and right. You should be wary of any doctor who has made any of these diagnoses on half a dozen of your friends and has them all on the same treatment. The doctor may be a poor or even unscrupulous practitioner. Indeed, one doctor I know of, who used to diagnose adrenal insufficiency all over town, later decided the same patients had hypoglycemia. Fortunately, he is no longer in practice.

A few physicians believe that millions of people are suffering from what they call "cerebral allergies." According to their theory, common foods, food additives, pesticides and other chemicals can interfere with the body's enzyme systems to cause fatigue, nausea, anxiety, severe depression and even schizophrenia. Treatment involves elimination diets, enzymes taken by mouth and large doses of vitamins and minerals.

Because the number of chemicals to which we are exposed in tiny amounts is enormous, and because the symptoms these substances are supposed to cause are prone to come and go spontaneously, a theory of this sort is virtually impossible to test. We know, however, that enzymes taken by mouth are inactivated by the stomach and intestines so that they do not function elsewhere as enzymes. The use of megavitamins for emotional disturbances is also in disrepute.

Thyroid for Weight Reduction

Thyroid hormone is sometimes used as part of a weight reduction program. Evaluation of this practice should consider why and how it is prescribed. Does the patient really have hypothyroidism as a cause of his overweight? (It is possible, but uncommon.) Is the thyroid being used as a placebo? Or is a fad diagnosis involved?

Some overweight patients insist upon "diet pills." They simply cannot accept the idea that the best way to lose weight is to develop sensible eating habits. For these patients, half a grain or one grain a day of thyroid can be used as a placebo to gain their cooperation with the rest of the weight control program. Used in this way, it is a safe and inexpensive placebo—in marked contrast to human chorionic gonadotropin injections

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which are commonly used at weight reduction clinics which exploit their clients.

There are a few doctors, however, who prescribe *large* doses of thyroid to patients whose thyroid function is normal. This treatment is designed to "burn off fat" by increasing your metabolism *above normal*. But this practice is dangerous because it can strain your heart and other organs. Any doctor who suggests it to you should be carefully questioned and probably dismissed.

The "Shot Doctor"

Most medications are just as effective by mouth as by injection. Shots are less comfortable and cost extra. So the *general* use of injections rather than oral medication should be questioned. Doctors who inject *most* of their patients should be suspected of poor medical practice. But note that I say *suspected* rather than *rejected out-of-hand*. For it is conceivable that some doctors who use many injections have valid reasons for using them.

The rules for judging injection use are not black-and-white. Take penicillin, for example. This drug will usually do its job quite well when taken orally, and routine use of shots will run an unnecessary risk—if the patient is allergic, a shot will produce a more troublesome reaction. But there are times when penicillin shots are appropriate. Shots can start to work faster and may be indicated when the doctor wants the treatment to take effect as soon as possible. Shots can produce a higher blood level and are the route of choice for syphilis. Strep throats require ten days of treatment, and where patients cannot be relied upon to complete the treatment, a single shot of long-acting penicillin will do it for them.

These are just some of the many factors which a doctor should think about when using penicillin—one drug among the thousands in use today.

Complicated? Yes, it can be—but let me give you my personal guidelines for evaluating a suspected "shot doctor."

The first thing to consider is whether he is injecting medications which would be just as effective by mouth. Assuming he is, the next consideration is what stimulates the use of shots. Is it patient demand or is it his own idea? If patients demand, does the doctor resist? Some patients have such confidence in shots that refusing to give them might only result in driving them into the hands of a marginal practitioner. The better practice is to give in at first but work toward making patients less dependent upon them. If they cannot be stopped altogether, at least they can be given infrequently. So far I am talking about effective medications. The same principles apply to placebo shots—but there is far less excuse for frequent use.

Vitamin B-12 shots are frequently used as placebos. B-12 does have a lifesaving medical use—the treatment of pernicious anemia, a *rare* disorder that affects the blood and nervous system. But other uses of B-12 are unscientific. The doctor who tells you that B-12 or "liver" shots "will really fix you up" when you feel "run down" is using them as placebos. The use of B-12 to treat iron deficiency anemia is fuzzy thinking. Surveys of doctors' practices have shown that *frequent* use of B-12 injections is often associated with poor standards of care in other areas.

I don't want to give you the impression that I am totally "against placebos." Or that you should look down on all doctors who use them. The practice of medicine is very complex and there are situations where placebos have real value. I can recall one woman whose severe problem with itching baffled both me and a topnotch skin specialist. After standard treatment failed, in desperation, we tried a B-12 shot—which worked. To this day I don't understand why. Nor do I understand why some injections (like female hormones for menopausal symptoms) sometimes seem to be more effective than the same medicine in pill form. We don't have a scientific explanation for everything we see.

The point here is that some doctors *may* have valid reasons for giving more shots than average. On the other hand, shots should not be used as a substitute for taking enough time with patients to reach an adequate understanding of their individual cases.

Sometimes I encounter people whose doctors have given them vitamin or hormone shots two or three times weekly for many months or years. Such treatment angers me. It may not be immediately clear whether such doctors are motivated more by fuzzy thinking or by greed. Either way, however, their patients have a lot to lose.

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"Miracle" Drugs

Gerovital H3 (GH3), developed by a Rumanian physician, is being promoted by the Rumanian National Tourist Office and a few American physicians as an anti-aging substance—"the secret of eternal vigor and youth." Claims have been made that GH3 can prevent or relieve a wide variety of disorders, including arthritis, arteriosclerosis, angina pectoris and other heart conditions, neuritis, deafness, Parkinson's disease, depression, senile psychosis and impotence. It is also reported to stimulate hair growth, repigment gray hair and tighten and smooth the skin. (The very length of this list should make you suspicious of the claims!) Although many uncontrolled studies describe great benefits from the use of GH3, controlled trials have failed to demonstrate any improvement in elderly patients.

The principal ingredient of GH3 is procaine, a local anesthetic that can cause convulsions and other serious side effects when rapidly absorbed. Such complications are rare, however. Procaine PVP, another injectable substance, was developed by Peter T. DeMarco, M.D., and used for the treatment of cancer, heart disease and many other ailments. In 1978, Dr. DeMarco's New Jersey medical license was revoked after a hearing at which it was charged that his neglect of sterile technique resulted in 92 cases of hepatitis.

"Chelation therapy" involves injection of disodium edetate or EDTA into the bloodstream where it is supposed to remove unwanted mineral deposits from various parts of the body before exiting via the kidneys. Vitamins and minerals may also be used. A course of treatment may consist of 20–50 injections. According to its promoters, chelation therapy may be helpful in kidney disease, heart disease, arthritis, Parkinson's disease, emphysema, multiple sclerosis, gangrene, psoriasis . . . (need I go on?). Although many people will testify that chelation has helped them, controlled studies are lacking. In addition, it is clear that chelation therapy can result in kidney failure and death.

Chelation therapy and treatment with GH3 and procaine PVP do not have FDA approval and physicians who use these treatments may be operating on the fringes of the law. If I were you, I would steer clear of anyone who even *recommends* these methods.

Questioning Surgery

Nowadays there is considerable discussion of "unnecessary" surgery. The most commonly questioned operations are appendectomies, tonsillectomies, hysterectomies, and procedures on the back for chronic pain. It is often pointed out that more of these operations are done in the United States than abroad. Arguments rage about whether too many operations are done here or not enough are done elsewhere. The answer is quite likely a bit of both.

In a recent New York study, an insurance company began requiring a second opinion by a specialist before it would pay for elective (nonemergency) surgery. Thirty percent fewer operations were done than before. So it is probably wise to have two opinions before agreeing to elective surgery. This does not necessarily mean that two surgeons need be consulted. A capable personal physician who is familiar with the surgeon's work will not let his patients be stampeded into an unnecessary

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operation. He will ask the surgeon to justify the procedure to him as well as to you.

The Skillful Patient

Licensing laws, accreditation, and peer review procedures play a major role in protecting you from marginal physicians. But no system can be perfect. To get the most out of our health care system, you must become a skillful patient. Choose your doctors with care and get into the habit of having them explain what they are doing for you—in language you can understand!

The miracles of science have made it easy to believe in science fiction.

BY

WALLACE F. JANSSEN Historian U.S. Food and Drug Administration

There was dead silence in the courtroom.

The tense little man in the witness chair leaned forward and shook his finger at the jury.

"I had fits all my life till Dr. Ghadiali cured me!" he shouted. "His Spectrochrome stopped my fits and now I feel grand!"

Suddenly the witness paled, stiffened in his chair and frothed at the mouth. As he began to convulse, a government physician and courtroom attendants stepped forward, placed something in his mouth and carried him away.

This shocking moment was but one of the dramatic episodes which marked the trial of Dinshah P. Ghadiali, "seventh son of a seventh son," and organizer of a nationwide healing cult which became a religion to his followers.

Ghadiali was a "gadget quack," inventor of the "Spectrochrome," a machine which resembled a theatrical spotlight. Spectrochrome, he claimed, would cure all diseases by projection of colored light. Not ordinary light, of course, but rays from a 1,000-watt bulb passed through a glass tank of water and focused by a crude lens through colored glass slides. Spectrochrome promised something special—"No diagnosis, no drugs, no manipulation, no surgery"—simply "attuned color waves." The light boxes bore labels stating they were "for the measurement and restoration of the human radioactive and radio-emanative equilibrium."

Directions for the treatment were spelled out in Ghadiali's textbook titled, "Spectrochrometry." Combinations of light colors were specific for body areas and diseases being treated. Time of treatment was determined by the phases of the moon and the dictates of astrology. Latitude and longitude of the place of treatment were determined according to "solar, lunar and terrestrial gravitation." The patient had to be nude, with his body facing north.

A three-volume "Ghadiali Encyclopedia" defined the technical language of Spectrochrometry and contained case histories of people who were supposedly helped by it. "For legal protection," the Encyclopedia suggested that words like "imbalance" be used for "disease" and "normalate" for "cure."

Appropriate for an astrological society, followers of the cult were organized in local congregations called "planets." Each planet was headed by a "Normalator" who gave treatments and instructed the faithful. Spectrochrome was more than colored light séances—it was a way of life to its followers! They must eat no meat and use no alcohol, tea, coffee or tobacco. Honey and eggs were likewise taboo. Membership cost \$90.00. Most amazing was the growth of the cult. At the time of the trial, Ghadiali had some 9,000 followers who paid dues and many others who took "treatments."

Pathos and tragedy marked the trial in Federal court at Camden, New Jersey, where victims of the fraud and survivors of other victims told their stories. The saddest testimony concerned people who had abandoned rational medical treatment and then succumbed to their diseases while depending on Spectrochrome.

Extremely pathetic were the "case histories" Ghadiali had published in his Encyclopedia. The Government presented five of these cases in court and proved that the allegedly successful results were false. Three of the victims died from the conditions Ghadiali claimed to have cured—two from tuberculosis, and a third from complications following severe burns. In the third case, the Encyclopedia contained photographs purporting to show the stages in the healing of burns that covered a little girl's body. The mother testified that scars and open sores had continued until the girl died. The fourth case was that of a girl whose sight Ghadiali claimed to have "restored," but who in fact was still totally blind. The fifth victim, a spastic girl completely paralyzed from the waist down, was carried to the witness chair. She had been photographed standing alone and reported to walk unaided. She testified that she had been supported by others except at the moment the picture was snapped.

Most dramatic was the testimony of the son of a man who died from diabetes. Pointing at the defendant, he charged: "You told my father to stop insulin. You told him to eat plenty of brown sugar and starches. You said he would recover with Spectrochrome!"

The evidence showed that Ghadiali himself did not believe in Spectrochrome. Certainly he was aware of the importance of suitable "qualifications" and had obtained a false M.D. degree from a diploma mill at a cost of \$133.33. Other "degrees" were secured in a similar manner. One institution which he did attend was the Atlanta Penitentiary where he matriculated in 1925 after being convicted for violating the Mann Act.* (He said he was "framed" by the Ku Klux Klan.) Testifying in the 1930's against the passage of the Federal Food, Drug and Cosmetic Act, he claimed to have a million-dollar business.

The 42-day trial was the longest in the history of the FDA up to that time. Ghadiali had 112 witnesses who testified they had used Spectrochrome successfully, making a total of 216 persons whose cases figured in the trial. Government witnesses included experts on cancer, diabetes,

^{*} A U.S. law (1910) prohibiting transportation of women across state lines for immoral purposes.

tuberculosis, heart disease, blood pressure and nervous and mental disorders. The Government had to prove beyond a reasonable doubt that Spectrochrome was a fraud and Ghadiali its perpetrator.

On January 7, 1947, the jury brought in a verdict of guilty on all 12 counts in the case. The sentence, by Federal Judge Philip Forman, was carefully designed to avoid making a martyr of Ghadiali and to put a stop to his gigantic swindle. The was accomplished through a \$20,000 total fine, probation for five years, and a three-year prison term to be served if the defendant resumed his illegal activities.

On the very day his probation ended, Dinshah Ghadiali announced his intention to found a new "Institute." Changing the name slightly, he built more machines and resumed leadership of the local branches, renamed "studios." New literature was issued bearing substantially the same unwarranted claims as before. The FDA requested an injunction which became permanent in July 1958, finally ending the operations of this "colorful" cult.

An Endless Variety

The Spectrochrome was but one of hundreds of contraptions and gadgets which the FDA has dealt with since it first obtained legal powers over "therapeutic devices" in 1938. The extraordinary variety of these health fakes is in itself significant. They range from seemingly complex electronic instruments to disarmingly simple articles of everyday use.

One of the most amusing health fakes that I can recall was the Chiropra Therapeutic Comb, invented by Herr Dr. Theo. Schwarz, of Mannheim, Germany. Imports were spotted by U.S. Customs and turned over to FDA. It was the theory of Herr Schwarz that the act of scratching is beneficial, a well-known fact which he extended to extraordinary lengths. The Chiropra Comb, a soft rubber article with curved teeth, came with a 36-page illustrated manual of instructions on how to scratch—for the treatment of virtually all diseases. Charts showed the proper scratching patterns for men, women and children. For high blood pressure, for example, the instructions called for scratching the back of the trunk and the back of the lower legs. For arthritis deformans, criss-cross scratching of the lower back, and back of the left leg, was prescribed.

The Chiropra system was promoted in Germany by the "Chiropra Institute" of Heidelberg. FDA detained the imports on the basis of false claims that scratching would benefit such conditions as cancer, multiple sclerosis, asthma, heart and circulatory diseases, insomnia, constipation, lumbago, arthritis, stomachache, fallen arches and cold feet.

The variety of gadgets to cure anything and everything never ceases to amaze! But even more amazing is the uncritical capacity of so many people to believe that any one thing can do so much. About the same time I heard of the Chiropra Comb (the mid-1950's), the FDA seized a little device called "Babylon's Zone Therapy Roller." This was simply a single large ball bearing mounted on a block of wood—resembling a furniture caster. The general idea was that massaging the feet on the ball could be beneficial for many different conditions. After all, are not the feet connected to the rest of the body, and do they not affect the way you feel? So why not treat the whole body through the soles of the feet?

Speaking of combs reminds one of brushes and of Dr. Scott's Electric Hair Brush for the Bald. This turn-of-the-century marvel was warranted to cure nervous headache, bilious headache and neuralgia in five minutes! Over half a century later it took a hard-fought court case to stop a dentist's claims that regular use of his toothbrush kit was the best way to prevent heart disease, cancer, and birth defects in one's offspring!

A seemingly harmless device can turn out to be inherently dangerous. Consider the "Relax-A-Cisor," an electrical contraption for the overweight—designed to provoke muscle spasms through mild electrical shocks. This was promoted as "passive exercise," a pleasant and effortless way to reduce. It took years of investigation and a five-month court battle to put this profitable gismo out of business. Forty witnesses testified about the injuries they had received from its use. Medical experts explained the hazards of treatment with such a machine. Federal Judge William P. Gray summed up the evidence by saying the Relax-A-Cisor would be hazardous in a wide range of conditions including gastrointestinal, orthopedic, muscular, neurological, vascular, skin, kidney and female disorders. He found it could cause miscarriages and could aggravate such pre-existing conditions as epilepsy, hernia, ulcers and varicose veins.

More than 400,000 Americans fell for this major health hoax of the late 1960's. Obviously, to round up all these machines from all their users would have been practically impossible. Accordingly, the FDA issued a public warning and arranged for public notices to be displayed in U.S. Post Offices throughout the country.

Much gadget quackery is designed for use by health practitioners, especially chiropractors. During the 1950's and early 1960's, more than 5,000 "Micro-Dynameters" were sold. Chiropractors purchased most of them at prices up to \$875.00. This machine was represented as capable of diagnosing and treating virtually all diseases (a sure sign of quackery). It consisted of a highly sensitive galvanometer fitted with various elec-

trodes which were applied to different areas of the patient's body. Actually, the only condition it could detect was perspiration! Because of its uselessness, the Court of Appeals found the device unsafe even in the hands of a licensed practitioner. Announcing a nationwide campaign to round up all Micro-Dynameters in use, the FDA Commissioner called the machine "a peril to public health because it cannot correctly diagnose any disease." Thousands of people, he said, had been hoodwinked into believing they had diseases they did not have, or had failed to get proper treatment for diseases they did have.

Since 1972 the FDA has been conducting a nationwide round-up of "Diapulse" devices. This machine was represented as an effective means of diathermy (deep heat) treatment. But FDA tests showed it produced an insignificant amount of heat—not enough for any therapeutic effect. Promoted mainly to M.D.'s, Diapulse was backed by pseudomedical literature based on uncontrolled experiments. Many sales were made at seminars for doctors. During 1973 alone, more than 1,000 of the machines were seized or voluntarily turned over to the FDA.

The cost to patients of diagnosis or treatment with ineffective machines far exceeds the cost of the equipment. A conservative estimate would be \$100 million annually.

From Witchcraft to Science Fiction

Since much gadget quackery is absurd, why do people fall for it?

Gadget quackery had its beginnings thousands of years ago when man first invented charms and fetishes to ward off evil spirits and cure disease. Belief in magic is still a major factor in the success of health fads and cults. At the same time, the miracles of science have made it easy to believe in science fiction.

When Benjamin Franklin published his discoveries on electricity he also helped open the door for two of the most famous frauds in medical history. The idea that this mysterious force might have medical applications was widely popular. Franklin himself had worked with a physician who attempted to use electric shock in treating a woman for convulsions. In 1784, while representing the United States in France, Franklin was appointed to a royal commission to investigate the hypnotist Antoine Mesmer, whose treatments had become the rage of Paris. Mesmer, clad in a lilac suit, carrying a metal wand and playing a harmonica, healed by what he called "animal magnetism." Patients sat around a huge vat or "battery," holding iron rods which were immersed in a solution. The treatments went on for hours, accompanied by shouts, hysterical laughter and convulsions. The Franklin commission, after conducting some experiments, reported no electricity in Mesmer's tub. Nor could they detect the current known as "animal magnetism." A royal decree banned further treatments, but Mesmer was allowed to take his winnings to England. On the commission besides Franklin were the noted chemist Lavoisier ("The Father of Modern Chemistry"), and a physician named Guillotin, (inventor of the device for execution by beheading).

Ten years later. Elisha Perkins, a mule trader turned physician, secured a patent for "Perkins Tractors." Franklin was dead but popular interest in electricity was as great as ever. The tractors, two pointed rods about three inches long, one gold-colored, the other silver, were simply drawn downward across the afflicted part of the anatomy, in a sort of scratching motion. This, it was theorized, would draw off the "noxious fluid" (electricity) which was alleged to cause disease. "Tractoration," of course, was universal therapy-good for everything. For a time, the Perkins treatment enjoyed amazing popularity. Ministers, college professors and Congressmen gave enthusiastic endorsement. The Chief Justice of the Supreme Court bought a pair and President Washington wrote letters recommending the treatment. The medical profession was initially impressed; but in 1796 the Connecticut Medical Society condemned the treatment as "gleaned from the miserable remains of animal magnetism." In the following year the Society expelled Dr. Perkins from membership. In 1799, Dr. Perkins voluntarily served in a vellow fever epidemic in New York, caught the disease, and died. Tractoration withered away.

But electrical health gadgetry marched on—through the 19th century and into the 20th. Electric belts, peddled by pitchmen at county fairs, were credible because the magic of magnetism was being demonstrated in such marvels as the telegraph, the dynamo and the telephone. Then came the x-ray and radio, with accompanying waves of electronic quackery.

In the 1920's, Albert Abrams, M.D., invented the system of diagnosis and healing he called "Radionics." Soon more than 3,000 local practitioners, mainly chiropractors, were sending dried blood specimens from patients to be inserted in Abrams' "Radioscope." The diagnosis would come back on a postcard, with recommended dial settings for treatment with other Abrams machines.

Abrams left his lucrative business to the "College of Electronic Medicine" which he reportedly endowed with some \$3 million to carry on his medical theories. The "college" was succeeded by the "Electronic Medical Foundation." When FDA agents investigated this business in the early 1950's, they looked first into the blood spot system of diagnosis. Inspectors arranged to send blood from an amputee and got back a report of

arthritis in the right foot and ankle which the man had lost several years before. The blood of a dead man brought back a diagnosis of colitis, and that of an 11-week-old rooster resulted in a report of sinus infection and bad teeth!

Investigating the 13 different treatment machines, the FDA found just two basic types. The "Depolaray" and six other units simply produced magnetism from circuits like that of an electric doorbell. The "Oscilloclast" and five similar machines had short-wave radio circuits resembling a taxicab transmitter. None could heal anything.

Officials of the Electronic Medical Foundation consented to a Federal court injunction in 1954, agreeing to stop all further promotion of the diagnostic system and devices. Shortly thereafter, they established the National Health Federation, an organization which would crusade against any government interference with quackery (see Chapter 19).

What made "Radionics" seem sensible to its victims? Certainly one factor was the experience of millions of Americans who had built homemade radios with crystal detectors and heard music in the earphones for the first time. Why couldn't blood crystals function like the crystal in the radio and reveal a person's diseases? Besides, hadn't their own trusted Dr. X taken the blood specimen and sent it away for analysis?

Treatment by Remote Control

Albert Abrams had many imitators, among them Ruth Drown, a Los Angeles chiropractor. One of her many nonsensical inventions was the Drown Radiotherapeutic Instrument. With this little black box and *two* blood spots, Mrs. Drown claimed to be able to "tune in" specific organs of the body and treat a patient by remote control anywhere in the world! When she was prosecuted by the FDA, one of the defense witnesses testified how she had been cured of pneumonia, from Hollywood, while attending a convention of the National Education Association in Atlantic City. When this witness was later identified by reporters as chairman of the Los Angeles Board of Education, there was an immediate reaction. How could someone so uninformed and gullible be in charge of the education of 400,000 children, be responsible for hiring science teachers, organizing health education programs, and the like? A resignation followed. Persons who are well-educated in some areas may be extremely naive in health matters.

Dr. Drown claimed that the only current used in her treatments was "the patient's own body energy." She alleged that tuning in on the "radio frequency" of the disease would automatically cause the disease cells to "fall away." Her followers were taught to conserve their "body mag-

netism." At the trial, one witness enthusiastically endorsed the Drown warning against shower baths. Since water was a conductor, his body magnetism and energy would go down the drain if he showered. In a tub bath, he was careful not to pull the stopper until he had climbed out, and to clean the tub with a long-handled brush!

The trial also had its tragic side. The Government's principal case history was that of a woman treated for breast cancer with the Drown device until her case became too advanced for successful surgery. Mrs. Drown was convicted and received the maximum fine of \$1,000.

A Force Unknown to Science

"Unknown forces," as well as those familiar to science, have been exploited by the gadgeteers. William R. Ferguson combined both approaches in promoting his "Zerret Applicator."

More than 5,000 of these gadgets were sold to desperate, hopeful people throughout the Midwest in the late 1940's. Made of two blue and white plastic globes joined together (originally components of a baby rattle), the device was naturally nicknamed the "plastic dumbbell." Inside were two plastic tubes containing "Zerret Water." Ferguson said this produced the "Z-ray, a force unknown to science." To have his diseases cured, a patient had only to sit holding the dumbbell, one ball in each hand, for at least 30 minutes at a time. The energy from the Z-rays would flow through the body and "expand all the atoms of your being." Directions warned not to cross the legs during treatment, since this could cause a "short circuit."

All this seems so ridiculous that one wonders why anyone would spend \$50 for such a gadget. The reason seems to have been the timing of the promotion. The public was being informed about the wonders and possibilities of atomic energy. The *Chicago Tribune* had carried a series on the experiments at the University of Chicago involving plutonium and "heavy water," which led to the atom bomb. As in the time of Franklin and Perkins' tractors, people were hearing of possible health applications of a new kind of energy. The medical uses of x-rays were long established. Why shouldn't there be a Z-ray which could cure by its effects on the atoms of the body? Maybe it sounded silly, but why not give it a try? *It might work!* What did they have to lose? Only \$50.

The medical con man Ferguson was sentenced to two years in Federal prison and a woman associate, Mary Stanakis, received a one-year sentence. Chemists proved at the trial that Zerret water was chemically identical to Chicago tap water.

During the same month, the Chicago Federal Court sentenced George

Erickson and Robert Nelson to a year in prison for promoting the "Vrilium Tube" for radiation therapy. They recommended it for such conditions as cancer, diabetes, leukemia, thyroid disturbances, ulcers, arthritis and other serious conditions. This gadget was a brass tube two inches long, about as thick as a pencil, with a safety pin for attaching it to clothing. Inside was a tiny glass tube filled with barium chloride, a chemical worth about 1/2000 of a cent. It sold for \$306.00, tax included.

Having to prove "beyond a reasonable doubt" that the Vrilium Tube was a fraud, the Government called some 35 witnesses, including distinguished atomic scientists, who established that the device was totally lacking in radioactivity and was worthless for any medical use. The most effective witness, however, was a man who described the death of his diabetic son who abandoned insulin and pinned his faith on the "Magic Spike."

Sentencing the defendants, Federal Judge Walter LaBuy said:

The sale of the device constitutes a gross fraud on the public . . . You have imposed on the poor sick who in their anxiety for relief would try anything at any price. You have fooled the trusting, the credulous and the gullible. The quackery you have employed is the more despicable because those who were deceived into believing in your fake remedy failed to pursue the treatment proven by medical science to be effective in preventing and curing diseases. This credulous belief in the efficacy of a useless product is the greatest danger inherent in quackery. It discourages and prevents those who use it from seeking proper medical treatment, and the results of such neglect are often fatal.

The Orgone Energy of Wilhelm Reich

Wilhelm Reich, M.D., one-time pupil of psychiatrist Sigmund Freud, claimed to have discovered "orgone energy," the most powerful force in the universe, and wrote extensively of its manifestations. Physical scientists, however, were unable to find the slightest evidence in Reich's data or elsewhere that such a thing as orgone exists.

Soon after coming to the United States in 1934, Reich designed and built "orgone accumulators." Most of them were boxes of wood, metal and insulation board about the size of a telephone booth. Disease, he claimed, could be cured simply by sitting inside the box and absorbing the orgone. Hundreds of the boxes were sold or leased to practitioners and laymen for treatment of all kinds of diseases including cancer.

Rentals were around \$250 per month. When the FDA sued in 1954 for an injunction to stop the hoax, Reich told the court that neither it, nor the FDA, would be capable of understanding his orgone science and therefore he would not offer a defense. The injunction was then issued on the basis of the Government's evidence. When Reich continued to promote the box for treating the sick, he was prosecuted for contempt of court. Found guilty, he was sent to prison where he died in 1956.

From the outset of his difficulties with the Government, Dr. Reich attempted to pose as a martyr and to make his case a *cause célèbre*. His family and followers have continued this effort. Destruction (by court order) of seized labeling material on the accumulator devices has produced accusations of "book burning." Actually, Reich's books have continued to be available. There has been no destruction of any of his publications other than those which accompanied the seized devices.

Scientology and Its E-Meter

Twenty years after the Spectrochrome trial, the FDA became involved with Scientology, another group which used a supposed healing device in its rituals. The device, a form of galvanometer, is called the Hubbard Electropsychometer (or "E-Meter"). Its inventor, the founder of Scientology, was a science fiction writer named Lafayette Ronald Hubbard. Hubbard has reportedly said: "If a man really wanted to make a million dollars, the best way would be to start his own religion."

An article by Hubbard in the May 1950 issue of Astounding Science Fiction was such a hit that he dashed off a book-length version—Dianetics: The Modern Science of Mental Healing. Overnight, Dianetics became a popular fad. A Dianetic Research Foundation was established at Elizabeth, New Jersey. Practitioners trained by the Foundation set up offices in Hollywood, on Park Avenue and on Chicago's "Gold Coast." The practitioners were called "auditors" and patients were interviewed while they reclined on couches. After a few years, Dianetics declined in popularity, but the invention of the E-Meter and the incorporation of Scientology as a church, revived it.

FDA's involvement with Scientology began in 1958 when it learned that the Distribution Center of the organization was selling a drug called "Dianazine." This product was promoted for "radiation sickness," a condition widely feared at that time as a potential consequence of "fall-out" from atomic weapons testing. Dianazine, a vitamin mixture in tablet form, was seized and condemned by the court as misbranded.

A follow-up inspection led to an investigation of the E-Meter. Action against the device began when more than 100 E-Meters were seized by U.S. marshals at the headquarters of the "Founding Church of Scientology" in Washington, D.C. The court papers charged that the devices were misbranded by false claims that they treat effectively some 70 percent of all physical and mental illness. It was also charged that the devices did not bear adequate directions for treating the conditions for which they were recommended in Scientology literature.

A jury trial resulted in a verdict that the E-Meter was misbranded by the Scientology literature—hence both the device and its "labeling" were subject to condemnation. The court rejected as irrelevant in this case the defense that the literature was exempt from legal action because it was issued by a "religious" organization. The Court of Appeals, however, reversed the verdict on the basis that the government had done nothing to rebut Scientology's claim that it was a religion. A new trial was ordered, at the close of which Judge Gerhardt A. Gesell issued a 14-page opinion. Regarding the practice of auditing, the judge said:

Hubbard and his fellow Scientologists developed the notion of using an E-Meter to aid auditing. Substantial fees were charged for the meter and for auditing sessions using the meter. They repeatedly and explicitly represented that such auditing effectuated cures of many physical and mental illnesses. An individual processed with the aid of the E-Meter was said to reach the intended goal of 'clear' and was led to believe that there was reliable scientific proof that once cleared many, indeed most, illnesses would successfully be cured. Auditing was guaranteed to be successful. All this was and is false—in short, a fraud.

Upholding FDA's charges that the E-Meter was misbranded, Judge Gesell ordered that use of the E-Meter be confined to "bona fide religious counseling" and that the device be prominently labeled with the warning notice:

"The E-Meter is not medically or scientifically useful for the diagnosis, treatment or prevention of any disease. It is not medically or scientifically capable of improving the health or bodily functions of anyone."

Editor's Note:

In 1979, nine Scientology officials, including Mary Sue Hubbard, wife of the church's founder, were found guilty of conspiring to steal documents from the FBI, the Internal Revenue Service and other government agencies. All were fined and sentenced to prison terms. The case was based on documents seized in FBI raids on church offices in Los Angeles and Washington, D.C., in 1977. The Scientologists are appealing the verdict on the grounds that the FBI raids were illegal.

After eight years of litigation, with two complete trials and three rulings of the Court of Appeals, the E-Meters and literature were returned to the Scientology headquarters. Was anything accomplished? Definitely, yes. The courts had seen the necessity to uphold the food and drug law even in a situation that involved the First Amendment. The court upheld the right of believers to believe—even in science fiction—provided that they do not violate the laws that protect the public health.

Consumer Protection Laws

Before 1938, the only Federal control over medical devices was through enforcement of the postal laws against device fakes sold by mail. Device quackery was so rampant that in 1938 a new Food, Drug and Cosmetic Act was passed which included specific provisions to combat dangerous or misbranded devices.

Through court procedures under the 1938 law, hundreds of misbranded devices were taken off the market or had their labels changed to eliminate deception. At the same time, the FDA began to regulate "legitimate" medical devices—testing the accuracy of clinical thermometers, insuring sterility of bandages and sutures, seizing defective condoms—to mention a few of the major problems.

Unlike new drugs, new devices did not have to be proved safe before being put on the market. To act against a device, the FDA had first to learn about it and then to be able to prove it was dangerous or misrepresented. Unless a device was clearly dangerous, it could usually continue to be sold until all court proceedings ended. The more profitable the business, the longer the promoters were likely to stretch out the litigation.

The weaknesses of the 1938 Food, Drug and Cosmetic Act with respect to devices were recognized from the beginning and corrective legislation was introduced year after year. Meanwhile, great changes were taking place in medical technology. New materials and the development of electronics were bringing about a tremendous increase in the number and complexity of medical devices. Pins and plates to repair bones were followed by replacements for entire joints, artificial arteries and valves were developed and electronic pacemakers were devised to keep the human engine running. As these products became more commonplace, the need for standards and more specialized regulation became more and more obvious. Since the government could stop sales only by proving actual harm or deception, a manufacturer could, in effect, test a device on the public and wait for the FDA to take action if something went wrong. Finally, after many years of deliberation, Congress enacted the Medical Device Amendments of 1976.

Since the stimulus to the 1976 device act was the problem of advancing technology, this law has had little effect upon the regulation of quack devices. To avoid over-regulation, the new law requires premarket approval primarily for implanted or life-supporting devices. Other devices that present a substantial and unreasonable risk can be ordered off the market, but since few "quack" devices have been so inherently dangerous, these devices have continued to be regulated much as before—with the FDA having to prove harm or deception on a case-by-case basis. The 1976 law also authorizes the banning of deceptive devices by regulation, but as yet, this procedure has not been used.

One feature of the new law that could help to control device quackery is that registration is required for all device manufacturers and their products. But since promoters of quack enterprises are adept at evading the law, it will be no surprise if they simply take their chances by not registering.

The quality of consumer protection against device quackery will depend upon the enforcement priority given to it by the FDA. At present, this priority is low—with more effort being devoted to regulation of widely used "legitimate" medical devices. This does not mean that the FDA has abandoned its interest in controlling quackery. In the drug area, for example, much effort is being given to curb cancer quackery. False claims for devices are frequently stopped by warning letters, and the Agency continues to bring court actions when it cannot get compliance by other means. Fortunately, at the moment, there seem to be fewer *major* problems in the area of quack devices. Most of these gadgets are pocketbook swindles rather than health hazards.

Don't Be Fooled!

How can you avoid being cheated by the gadgeteers and their gadgets? For they are still around in great variety in spite of legal efforts to combat them.

First and foremost, don't believe anyone who tells you that *one* kind of diagnosis or *one* kind of treatment is effective for a *wide range of diseases*. The ancient Greeks had a word for this kind of oversimplification— "panacea"—good for curing everything. All panaceas are quackery. Many of the devices discussed in this chapter belong in this category.

Beware of all gadgetry promoted to aid in reducing. All "passive" or "effortless" exercise machines are fakes. The same is true of massagers or suction devices which are represented as capable of "spot reducing." There are no devices which can "reproportion" one's figure without dieting and proper exercise. That includes all so-called "body wraps," "sauna belts," "sauna suits" and other sweat-inducing garments.

Vibrator devices are on the market in great variety. Essentially for massage, they are often useful for temporary relief of muscular stiffness, aches and pains. Excessive claims are often made for them, however. Vibrators are not effective for curing arthritis, rheumatism, nervous disorders, heart conditions and other serious diseases. Nor are they effective for reducing.

Youth, beauty and sex are constantly exploited by the gadgeteers, as well as by other quacks. Devices to enlarge and develop the female breast are hardy perennials in the garden of quackery. Typically, they are plastic cups which connect to a vacuum pump or water faucet to produce a massage effect. Dozens have been taken off the market by government action. They are not merely ineffective. If cancer cells are present, breast massagers can help them spread. Bust developers are usually sold by mail, and FDA collaborates with the U.S. Postal Service in prosecuting their promoters.

Drugs and devices for "lost manhood" are fakes. So are devices to enlarge the penis or support erection. Ads in cheap pulp magazines are the traditional medium for promoting this type of quackery. There are no devices in this category which fulfill their claims.

"Air purifiers" are sometimes promoted with excessive claims. Even ordinary household vacuum cleaners have been advertised as helpful in preventing allergies, hay fever and respiratory diseases. Although equipment does exist which can effectively remove dust and pollen, the small units sold by many firms are not able to do so. Because germ particles are so tiny, no air purifier can help prevent viral or bacterial diseases such as colds, influenza or pneumonia. "Negative ion generators" have no value in preventing or treating disease.

There are no machines which can diagnose or treat many different kinds of illnesses by applying electrical contacts to the body, turning knobs and reading dials. Such devices are fakes!

Beware of gadgetry used by faith healers or promoted by crusading groups of laymen.

Don't fall for "science fiction." The miracles of legitimate medicine are much more wonderful and deserving of confidence.

Last, do not assume that because an article is on the market, is advertised, is sent through the mail, or is used or prescribed by a health practitioner, that it must be legitimate. If you suspect a gadget is misrepresented, don't hesitate to contact your nearest Food and Drug Administration office.

The Cruellest Killers: An Update

Cancer quackery is big business, with an estimated yearly income in the billions. It is also cruel business, for its customers come in desperate fear. Those customers who come while also undergoing good medical care will buy only empty promises. But those . . . who delay or abandon medicine's best, will purchase death.

BY

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The Cruellest Killers: An Update

John Miner was deeply shaken by what he saw:

"The right side of her face was that of an angel. The left half was covered with a growth so monstrous as to seem beyond nature's capacity to be cruel and grotesque . . . When I walked out of her room, I knew two things: Linda Epping would soon die; second, when it happened, I would seek a murder indictment."

When Miner made this report, he was Assistant District Attorney for Los Angeles County. The case had started routinely in 1961 with a complaint from Linda's parents. One Marvin Phillips had bilked them out of \$739 by falsely promising to cure their eight-year old daughter of cancer of the eye.

Linda had been scheduled for surgery which would remove her left eye and surrounding tissues. Cure was possible, her doctors thought, because the tumor did not appear to have spread. But shortly before the operation could be performed, a fateful conversation took place. In the hospital waiting room, Linda's distraught parents met a couple named Eaton. According to Mrs. Eaton, a chiropractor named Marvin Phillips had cured their son's brain tumor without using surgery.

Her hopes aroused, Mrs. Epping telephoned Dr. Phillips and informed him of Linda's diagnosis. Without even seeing the child, Phillips replied, "Yes, absolutely," he could help by "chemically balancing" her body.

Elated by this promise, the Eppings removed Linda from the hospital and took her to Phillips for treatment with vitamins, food supplements and laxatives (up to 124 pills plus 150 drops of iodine solution daily). In addition, Phillips "adjusted" Linda's spine at his office and told the Eppings to manipulate the ball of her foot each day until she cried.

Despite the new "treatment," the tumor grew quickly. Within three weeks, it was tennis-ball size and had pushed Linda's eye out of its socket. There was no longer any hope that surgery could save her. She died within a few months.

Phillips was subsequently convicted of second degree murder and sentenced to prison.

Promoters of Unproven Methods

Cancer quackery is big business, with an estimated yearly income in the billions. It is also cruel business, for its customers come in desperate fear. Those customers who come while also undergoing good medical care will buy only empty promises. But those like the Eppings, who delay or abandon medicine's best, will purchase death.

Promoters of quackery are often closely attuned to the emotions of their customers. They may exude warmth, interest, friendliness, enthusiasm

and compassion. Most important, they assure their frightened patients that they will be helped.

Unfortunately, recognizing quackery is not always easy. Its promoters may present a very professional appearance. They may wear white coats and use scientific-sounding words. They may use the title "Doctor" and display a variety of elaborately framed diplomas. Close investigation might reveal that their credentials come from "diploma mills" which have no recognized academic standing. Degrees such as "N.D." (Doctor of Naturopathy), "Ph.N." (Philosopher of Naturopathy) and "Ms.D." (Doctor of Metaphysics) are in this category. It is important to realize, however, that a few promoters of unproven methods are highly educated scientists who have strayed from their fields of competency.

Andrew C. Ivy, M.D., Ph.D., is an example of the latter. Dr. Ivy was highly respected by the scientific world for his contributions to medicine. But in 1959 he withdrew from the established medical community and became interested in "Krebiozen." This substance is derived from horses which have been injected with a sterile extract of Actinomyces, the fungus which causes "lumpy jaw" in cattle. The original substance was developed and brought to Dr. Ivy's attention by Dr. Steven Durovic, a Yugoslavian physician. The two doctors claimed it gave fantastic results in the treatment of cancer patients. But in 1963, 24 cancer specialists reviewed the medical records of 504 Krebiozen patients which had been submitted to the National Cancer Institute. Their conclusion, after thorough study, was that Krebiozen did not work against cancer in humans.

In 1965, court action brought by the Food and Drug Administration banned interstate shipment of Krebiozen. No longer associated with Dr. Durovic, Dr. Ivy concerned himself with a drug identical to Krebiozen which he called "Carcalon." Dr. Ivy died in 1978. In recent years, there has been little public interest in Krebiozen.

Recognizing Quackery

Quacks tend to be isolated from established scientific facilities and associations. They do not report their results in scientific journals. Instead they rely on publication in the free press and other non-medical channels. Often their cure is "secret" or bears their own name. They claim persecution by the medical profession or government agencies. They keep scanty records or no records at all.

Cancer quacks rely heavily on stories of people they have supposedly cured. But such evidence is not reliable. Many cancer patients have given testimonials, believing they have been cured, only to find out later that they still have the disease. Others did not have cancer to begin with. They only thought they did. Some satisfied customers are patients who used unproven methods together with good medical care. Charmed by the quack, however, they believe that his treatment is what helped them. Although spontaneous remissions of cancer are rare, they do occur. Thus it is possible, though unlikely, that someone who uses an unproven method could have a spontaneous remission at the same time.

To be classified as effective or proven, a treatment method must meet certain standards. Patients who are treated with a particular method must do better than similar patients who do not receive that treatment. Proof that the patients actually had cancer must be available in the form of specimens which can be examined by microscope. Patients must be followed for many years to measure the true outcome of their cases, and the number of patients must be large enough to rule out chance as a factor. Experiments which are valid can be repeated and thus confirmed by the scientific community. To date, all drugs shown to be effective in treating cancer in humans have also been effective against some form of animal or human cancer cells in laboratory test systems. For this reason, drugs will not ordinarily be tested in humans unless anti-cancer activity is demonstrated in laboratory tests.

Unproven Methods

Cancer quackery is as old as recorded history and probably has existed since cancer was recognized as a disease. Thousands of worthless folk remedies, diets, drugs, devices and procedures have been promoted for cancer management.

--Corrosive agents have been applied directly to tumors with the hope of burning them away. Turpentine is an old favorite, having been used by quacks since ancient times. In recent years, scientists have found chemicals which can destroy very superficial skin cancers. Except for that, however, corrosive agents are worthless.

—Other popular *folk remedies* include red clover tea, salves made from zinc chloride and blood root, plant material sun-dried in pewter, and even "live green frogs applied to external cancer till they die." Plants said to be used by Indians to shrink heads have been promoted—with the theory that if they could shrink heads, they could shrink cancer.

Beginning in 1922, a naturopath named Harry M. Hoxsey amassed a fortune treating cancer patients with worthless folk remedies. He used a combination of internal and external substances. The internal medicine, taken by mouth, was prescribed "in all cases" to "restore the body to physiological normalcy." It contained potassium iodide and such things as red clover, licorice, burdock root, Stillingia root, Berberis root, poke root, cascara, prickly ash bark and buckthorn bark. Hoxsey's external medicines contained corrosive agents such as arsenic sulfide. Hoxsey acquired the formulas for his remedies from his father while the latter was dying of cancer.

Three times during the late 1920's, Hoxsey was convicted in Illinois of practicing medicine without a license. In 1930, he was permanently enjoined from violating the Iowa State Medical Practice Act. In 1936, after unsuccessful attempts to practice in several other states, he moved to Texas, where he was able to practice for many years. Vigorous action by the Food and Drug Administration between 1950 and 1960 finally drove him out of business. His methods, however, are still advocated by health food stores and magazines; and the treatment is still being offered to patients at a clinic in Mexico.

Essiac is an herbal remedy whose ingredients have been kept secret. It was developed some 50 years ago by a Canadian nurse named René Caisse who was given the recipe by her father. It has never been scientifically tested.

—Diets are also claimed to remedy cancer. The usual theory behind them is that cancer is caused by an "imbalance" in the body or by accumulated "poisons" or "impurities." Proper diet would then "detoxify" the body. One such regimen is promoted by Johanna Brandt, N.D., in her book *The Grape Cure*. The patient must eat one-half pound of any "good variety of grapes," starting at 8 A.M. and repeating every two hours, for seven meals a day. For one or two weeks, nothing else may be added except for water. Then sour milk, raw vegetables, salads, dried fruits, nuts, honey, olive oil and certain fresh fruits may be eaten. Neither the Grape Cure nor any other special diet has any value in the prevention or treatment of cancer.

Proponents of the Gerson diet claim that detoxification is accomplished by daily enemas and a diet consisting primarily of fresh fruit and vegetable juices. Salt, spices, sodium bicarbonate, alcohol and tobacco are forbidden. After several weeks, milk proteins, vitamins and various other food supplements are added. This method was developed by Max Gerson (1881–1959), a German-born physician who emigrated to the United States in 1936. It is still actively promoted by his daughter, Charlotte Gerson Straus, who believes that "by healing the body, you can heal cancer and almost any other chronic disease and it doesn't matter what the cause . . . All chronic diseases are deficiency diseases." At the Gerson Therapy Center near Tijuana, Mexico:

Each patient receives all the fresh raw juices prepared 13 times daily in addition to the regular meals and other food, teas, and

materials for the enemas. The fee . . . including room with private bath, the physician's fee, and medication—is \$130 per day for the first week (\$910) and \$100 per day (\$700 per week) thereafter . . . [payable in advance] . . . A stay of not less than 2 weeks is suggested.

In 1947, the National Cancer Institute reviewed 10 cases selected by Dr. Gerson and found his report unconvincing. That same year, a committee appointed by the New York County Medical Society reviewed records of 86 patients, examined 10 patients, and found no scientific evidence that the Gerson method had value in the treatment of cancer.

Revici Cancer Control (also called lipid therapy) is based on the belief that cancer is caused by an imbalance between two types of lipids (fats), acid and alkaline. Its founder, Emanuel Revici, is an 84-year-old physician who was born in Rumania. Since 1947, Dr. Revici has been Scientific Director of the Institute of Applied Biology, which, until recently, was adjacent to Trafalgar Hospital, an institution in New York City to which he admitted patients for treatment. In 1978, the hospital was closed by a court order.

Since 1941, when this therapy first attracted attention in Mexico, many substances have been named by its proponents as current favorites. During one year alone, 17 different products were proposed for clinical trials. In 1963, a group of distinguished researchers reviewed 33 cases of cancer treated by the Revici method and concluded that it was "without value." Others who have offered to evaluate this method have been unable to reach agreement with his institute on procedures that would assure a valid test.

—Useless *biological products* used to treat cancer include vaccines and preparations derived from the patient's own blood and/or urine or from animal blood and/or urine. One such vaccine was the "Radio-Sulpho Cancer Cure" which originated in Denver, Colorado. Philip Schuch, Jr., President of the Radio-Sulpho Company, claimed he could "culture cancer germs direct from the cancer vaccine" he discovered. Although he was not a physician, he called himself a "cancer specialist." His treatment consisted of washing the cancer with Radio-Sulfo Brew, applying a Limburger cheese "poultice," and repeating every twelve hours. However, "to stand the powerful drawing power of the cheese," Schuch warned, "a person must be strong and healthy."

-Diagnostic testing is another fertile field for quackery. One worthless test was developed by Dr. H. H. Beard, a biochemist. Beard claimed that by measuring a sex hormone in your urine, he could detect cancer in your body within two or three weeks after it started. His book, A New Approach to Conquering Cancer, Rheumatic Fever and Heart Disease, contains a chapter on preventing malignancy by using his "Beard Anthrone Test." Advertisements for the book included instructions for collecting specimens which could be mailed to Dr. Beard in Fort Worth, Texas.

In 1965 the California Cancer Advisory Council and the Department of Public Health studied the Beard Anthrone Test and found it useless in the detection of cancer in humans. In May 1967, Beard was indicted by a Federal Grand Jury for mail fraud. Pleading "no contest," he received a six-month suspended sentence and one year probation. But before the court had halted his activities, Beard had conducted an estimated 15,000 tests for which he had received approximately \$150,000.

The Arthur (or Automated) Immunostatus Differential (AID) test, according to its proponents, "can lead to a diagnosis and early treatment several months to several years prior to the crisis we usually call cancer . . . The test also helps to detect general immune reserve deficiencies before a serious challenge occurs to destroy health and well being." To carry out the test, a few drops of blood are taken from an earlobe by pricking it with a pin. The blood is then smeared on a slide, stained, and examined by a computerized microscope. One practitioner in Ohio claims that the test is 98.67% reliable.

Two tests are used by William Donald Kelley, D.D.S., as guides to his dietary program to treat cancer. His Protein Metabolism Evaluation Index is based on the premise that cancer is a foreign protein. His Kelley Malignancy Index is claimed to be "the most accurate and extensive cancer detection system ever developed." It is supposed to determine "the presence or absence of cancer, the growth rate of the tumor, the location of the tumor mass, prognosis of the treatment, age of the tumor and the regulation of medication for treatment." A booklet by Kelley claims that "at least 86% of all cancer conditions could be adequately treated and/or prevented by diet alone" and that "cancer is nothing more than a pancreatic enzyme deficiency" caused by eating too much of the wrong kind of protein. "If people would not eat protein after 1:00 p.m.," the booklet states, "83% of cancer in the United States could be eliminated."

Immuno-Augmentative Cancer Therapy was developed by Lawrence Burton, Ph.D., a zoologist who claims to have discovered a way to treat cancer patients by manipulating an immune defense system which he postulates. In 1974, Dr. Burton declined an offer from the National Cancer Institute to help test his methods. Shortly afterward, after failing to complete a satisfactory application to the FDA to test humans in the United States, he established a clinic on Grand Bahama Island where treatment now costs \$2,200 for the first four weeks and \$300 per week thereafter.

—Through the years, hundreds of worthless *drugs* have been promoted for cancer prevention or cure. During the early 1940's, William Koch, M.D., Ph.D., acquired a large following of believers in a remedy which he claimed was 1.32 parts of glyoxylide per *trillion* parts of water! More than 3,000 assorted practitioners bought it for \$25 per ampule and charged patients up to \$300 per injection. Analysis of the product could find only distilled water.

Iscador is an extract of mistletoe proposed for the treatment of cancer some 60 years ago by Dr. Rudolph Steiner, a Swiss physician who also founded the Society for Cancer Research. According to a 1962 society report, "In order to make an efficacious remedy . . . it is necessary to pay attention to the time of picking . . . [since the plants] not only react to the influences of the Sun and Moon, but also to those of the planets."

Liliverum, another plant derivative, is being promoted by a woman in Oklahoma who has no apparent scientific training or credentials. According to promotional literature, it is "a pure extract of the ovary part of the Easter Lily . . . an exact duplicate of a human cell with the exact opposite chemical properties." Proponents claim that within 30 minutes after use, the extract reaches every remote part of the body where it surrounds and neutralizes cancer cells. However, tests conducted by the National Cancer Institute have shown no anti-cancer activity in animals and tissue cultures.

Laetrile heads the all-time list of quack cancer remedies. It contains the chemical amygdalin, a substance which is abundant in the kernels of peaches, apricots, bitter almonds and apple seeds. Such seeds are dangerous to eat because amygdalin breaks down into a toxic cyanide. Laetrile is sometimes referred to as "vitamin B-17," but it is not a vitamin.

Although laetrile has been used for more than 25 years, there is no evidence that it is safe or effective. In 1953, the Cancer Commission of the California Medical Society published information on 44 cancer patients who had been treated with laetrile during the previous year. Nineteen had died of their disease and there was no evidence that laetrile had helped any of the others.

Laetrile's backers have not been able to prove that it can control cancer in animals. Many independent laboratory experiments have also been negative. Without such proof, it is illegal for the drug to be used to treat humans in this country. Unfortunately, international trafficking of laetrile has become big business. By 1976, the U.S. Customs Service estimated that 20 to 25 distributors were involved. At that time, laetrile smuggled into the United States cost patients as much as \$50 for a half-ounce vial for injection. Tablets, which cost about three cents to make, sold for nearly two dollars in the U.S. Since then, cost estimates have varied widely.

Claims for laetrile's efficacy have also varied considerably. First it was claimed to prevent and cure cancer. Then it was claimed not to cure, but to "control" cancer while giving patients an increased feeling of well being. Lately it is claimed to be effective, not by itself, but as one component of "metabolic therapy," a program (with inconstant components) which may include enzymes, enemas, megadoses of vitamins, "pangamic acid" (also referred to as "vitamin B-15"), and a diet which excludes protein from animal sources.

Promoters of Laetrile

Laetrile is one of several unproven remedies concocted by the late Ernst T. Krebs, Sr., M.D., of San Francisco. In the early 1920's his Syrup Leptinol was seized by the FDA on charges that claims for it were "false and fraudulent." The syrup was sold at a time when the 1918 influenza epidemic was fresh in the public's mind. Its main ingredient was an herb which Krebs claimed had protected an indian tribe from the "flu." He also claimed that his syrup was good for asthma, whooping cough, tuberculosis and pneumonia. Later Dr. Krebs promoted a cancer drug called Mutagen, which contained the enzyme chymotrypsin. After that came laetrile made from apricot pits.

The first federal action against laetrile occurred in 1960 when an interstate shipment was seized at the former Hoxsey Clinic in Dallas, Texas. Dr. Krebs and his son, Ernst T. Krebs, Jr., then set up business as the John Beard Memorial Foundation. In 1961, in the second FDA action involving laetrile, the Krebs' and their foundation were also charged with shipping "pangamic acid" with claims that it is effective as a heart stimulant for humans and a tonic for race horses. Krebs, Jr., and the foundation pleaded guilty to five counts of violating the "new drug" provisions of the Food, Drug and Cosmetic Act. They were fined a total of \$3,755 and Krebs, Jr., was put on probation for three years. In 1965, the elder Krebs pleaded "no contest" to criminal contempt charges for disobeying a regulatory order prohibiting interstate shipment of laetrile. In 1966, he pleaded guilty to another contempt charge and also was convicted of failing to register as a drug manufacturer. In 1974, Ernst, Jr., and his brother Byron were each fined \$500 and placed on probation for violating California's health and safety laws. Byron's osteopathic license was revoked later that year for "mental incompetence." In 1977, Ernst, Jr., was found guilty of violating his probation.

Ernst, Jr., who is often referred to as "Dr. Krebs," considers himself a biochemist and a nutritionist. However, investigators have found that:

1. He was expelled from Hahnemann medical school in the early 1930's after failing his sophomore year.

2. He received an A.B. degree from the University of Illinois in 1942 after taking courses at five different colleges. He received low or failing grades in some of his scientific subjects.

3. His doctoral degree is an honorary one awarded in 1973 by a small bible college in Oklahoma.

Ernesto Contreras, M.D., a licensed physician in Tijuana, Mexico, considers his clinic to be "an oasis of hope." According to a recent advertisement, it is "one of the world's leading clinics in the prevention, early detection and Metabolic treatment of cancer, with more than 16 YEARS OF EXPERIENCE in more than 26,000 cases."

John Richardson, M.D., a general practitioner in Albany, California, has also treated thousands of patients with laetrile. His license was revoked in 1976 by the Board of Medical Quality Assurance, which characterized his treatment of cancer patients as "an extreme departure from the standard practice of medicine."

The International Association of Cancer Victims and Friends (IACVF) was formed in 1963 to "restore the cancer victim's life and free choice of treatment and doctor." The Association's founder, Cecile Pollack Hoffman, was a San Diego schoolteacher who underwent a radical mastectomy for breast cancer in 1959. In 1962, she had further surgery due to the spread of the cancer. Her husband, while sitting in an airport waiting room, happened to pick up a paperback book entitled *Laetrile: Control for Cancer* by Glenn D. Kittler.

After reading the book, Mrs. Hoffman sought further information. Not long afterward, she became a staunch supporter of Laetrile and developed a belief that it had saved her life. Although she died of metastatic cancer in July 1969, her organization has continued to operate. By 1979 it had about 50 chapters and 20,000 members.

IACVF sponsors conventions at which unproven cancer remedies are promoted and sometimes sold. It distributes information on the availability of unproven cancer remedies and makes arrangements for travel to Mexico for treatment. IACVF members, who pay dues according to membership category, receive the *Cancer News Journal* which contains many misleading articles about unproven cancer treatments. Dr. Contreras is a "Life Member" of IACVF.

The Cancer Control Society was formed in 1973 in Los Angeles by dissident members of the IACVF after disputes over major policy and the distribution of the proceeds of book sales. The new group favors aggressive lobbying and court action against government restrictions on unproven remedies of every kind. It is working toward national organization.

The Committee for Freedom of Choice in Cancer Therapy, Inc. (CFCCT), was founded in 1972 by Robert Bradford, a Stanford University engineer. This group was able to establish large numbers of local chapters throughout the United States within a matter of months. Its interests appear to be political rather than medical, with emphasis on Constitutional rights and freedoms. Persons affiliated with this Committee appear also to be closely linked to "underground railroads" which provide access to those who provide unproven remedies. Some bookshops associated with the John Birch Society have served as meeting places for the Committee and as sources of literature about unproven treatments. The Committee has made wide distribution of a one-hour film called *World Without Cancer* as well as a book of the same name.

In 1977, Bradford, Dr. Richardson, Frank Bowman (Richardson's business manager) and Frank Salaman (CFCCT vice president) were convicted of conspiracy to smuggle laetrile into the United States. Bradford was fined \$40,000, Richardson, \$20,000, and the others, \$10,000 each. Records in the case indicate that Richardson banked more than \$2.5 million during a 27-month period and Bradford received \$1.2 million for 700 shipments of laetrile.

The National Health Federation (NHF) is another membership organization which promotes the gamut of questionable health theories and practices. Many of its leaders have been in serious legal difficulty (see Chapter 19). Since its founding in 1955, it has been fighting vigorously against government regulation of unproven methods. Its legal defense fund assists those who are being prosecuted for sale of unproven cancer remedies. Its monthly newspaper, *Public Scrutiny*, specializes in news about laetrile and carries many ads from sellers of laetrile. (Mrs. Frank Salaman is its assistant editor.) The NHF Memorial Library supports "research" by laetrile proponents.

NHF's main impact, however, is its ability to generate huge amounts of mail to Congress and other agencies. In 1957, an NHF campaign resulted in 200,000 communications to the FDA to protest its interference with the Hoxsey cancer treatment. During the past several years, NHF has inspired more than two million letters urging Congress to weaken FDA jurisdiction over food supplements. If Congress should do this, unproven cancer remedies would be much easier to market.

Promotion Through the Media

Freedom of the press is an important factor in the promotion of unproven cancer remedies. Books, especially if they are on so-called "controversial" medical problems, are quite appealing to the public. Many books about unproven remedies are cleverly written so that the reader may think he is getting valuable information when he is not. Some examples are The Incredible Story of Krebiozen: A Matter of Life and Death; Vitamin B-17: Forbidden Weapon Against Cancer; Freedom from Cancer: The Amazing Story of Laetrile; and Has Dr. Max Gerson A True Cancer Cure?

Another book, *Laetrile Case Histories*, by Dr. Richardson and Patricia Griffin, R.N., has been analyzed in detail by William T. Jarvis, Ph.D., president of the California Council Against Health Fraud, Inc. Although the book's cover promises 90 case histories, actual count reveals only 62, more than half of whom received some conventional treatment in addition to treatment by Richardson.

Of the 62 histories, 51 contained enough information to enable comparison with published statistics of similar patients treated by conventional means. Dr. Jarvis concluded: "These 51 hand-picked patients constitute 1.3 percent of the 4,000 cases treated at the Richardson Clinic between 1971 and 1976. They survived an average of 29.9 months against odds which suggest that 70 percent of similar cases would normally be alive that long without metabolic therapy. Statistically speaking, this is quite unimpressive."

Entertainers, politicians and other socially prominent persons are often called upon to promote unproven methods. These individuals, while usually sincere, do not have the scientific background to judge the value of the method they are promoting. Cancer quackery gets additional support from sensational mass circulation newspapers and magazines and from radio and television talk shows. A number of "health" magazines and newsletters which are especially interested in unproven treatment regimens publish information on the latest "theories" and "advances" in cancer management. Examples of these are NHF's Bulletin, CFCCT's *Choice, The Healthview Newsletter, The John A. Richardson Newsletter, Prevention* magazine and Let's Live.

The Political Explosion

Beginning in 1975, a steady procession of court cases aroused unprecedented media interest in laetrile. Government prosecutions, efforts to rescue children from "metabolic" therapy, and suits by "terminal" patients frequently made headlines.

The first major court case was brought against the FDA by Glen Rutherford, a seed salesman from Kansas who believes that laetrile has been keeping him alive. About ten years ago, Rutherford developed cancer in a rectal polyp. Fearful of surgery, he consulted Dr. Contreras who treated him with laetrile, recommended a change of diet *and cauterized the polyp*. Although cauterization can easily cure this type of cancer when it is localized in a polyp, Rutherford developed an unshakable belief in laetrile. (According to an article in *People* magazine, he also began taking 111 pills a day, most of them vitamins.) In 1975, he filed a class action suit seeking the right for "terminal" patients to import laetrile for personal use.

Promoters of laetrile, cleverly portraying themselves as "little guys" struggling against "big government," then launched a campaign to "legalize" laetrile. With publicity and distrust of government working to their advantage, citizens organized by the Committee of Freedom of Choice in Cancer Therapy began to pressure state legislatures to allow the sale of laetrile within their states. Federal legislation to exempt laetrile from "new drug" laws was also introduced.

Supporters of laetrile argue that individuals should have the freedom to choose their treatment, particularly if they are fatally ill. This argument is not valid! The laws which ban unproven cancer remedies are needed to protect the public from *all* worthless remedies. The supposed psychological benefit of worthless remedies in apparently hopeless cases is far outweighed by the possibility that such products will be used *instead* of effective treatment. It is not possible to be certain in advance who is terminal. Even if it were, *is there any reason to allow people who make false claims to take advantage of desperate cancer patients who would believe such claims*?

The first judge who heard the Rutherford case apparently thought so, for he ruled that any patient certified as terminal by his physician may import a personal supply. Many state legislators also thought so as laws were passed to permit the sale of laetrile in 21 states. But as higher courts ruled on the Rutherford case, and as opponents of laetrile became better organized, the tide began to turn. In June 1979, the U.S. Supreme Court rejected the argument that drugs offered to terminal patients should be exempted from FDA regulation.

Laetrile proponents still hope that if enough states pass favorable legislation, Congress may be moved to exempt laetrile from federal regulation, but they have made little progress toward this goal within the past year.

The Cruellest Killers: An Update

Role of the American Cancer Society

In 1954, the American Cancer Society began a program to help fight cancer quackery. At that time, there was little factual information concerning this problem and there were no state laws to combat it.

A Committee on Unproven Methods of Cancer Management was formed to serve as a central coordinating force in this field. The Committee is concerned with public and professional education as well as legal matters. Its membership includes experts in these fields. The Committee has issued many reports on individual unproven cancer remedies and tests. Its "State Model Cancer Act," modeled after the California antiquackery act, has encouraged passage of laws against cancer quackery in several states, but some of these have been partially superseded by laws which protect laetrile.

The National Office of the American Cancer Society has established an information clearinghouse which contains one of the country's largest collections of information about cancer quackery. Material from its files is used to answer thousands of inquiries from health professionals, writers and the general public. Information about unproven methods is also published in Ca—A Cancer Journal for Clinicians which is distributed, free of charge, to more than 400,000 physicians, medical students and nurses in the United States. Close liaison is also maintained with the FDA, the National Cancer Institute, the U.S. Postal Service, the U.S. Customs Service and other interested parties—both government and private.

The Cruellest Killers

Most cancer patients can be cured if treated properly and in time. One and one-half million Americans are alive today because their cancers were cured by prompt use of *proven* methods of surgery, radiation or chemotherapy.

You might think that as medical treatment has become more effective, quackery would diminish in proportion. That has not happened. Modern communication and our free press have enabled unproven methods to get enormous publicity—luring many unsuspecting Americans to try them.

Many people who promote unproven methods of cancer management are well-meaning individuals who are sincere in their beliefs. The rest are profiteers. Regardless of their motivation, however, one thing is clear. Incurable cancer patients who waste their life's savings on false hopes, and potentially curable patients who die from delay of proper treatment, are victims of quackery at its cruellest.

The Cruellest Killers: An Update

Recommended Reading

You Can Fight Cancer and Win, by Jane Brody with Arthur I. Holleb, M.D.

Nutrition Cultism, by Victor Herbert, M.D., J.D.

- The Victimizing of Desperate Cancer Patients, by Terri Schultz and Bard Lindeman, Today's Health, November 1973.
- Laetrile: The Political Success of a Scientific Failure, Consumer Reports, August 1977.
- Choices: Realistic Alternatives in Cancer Treatment, by Marion Morra and Eve Potts.



criteria which should be used by chiropractors when determining whether a patient is or is not a chiropractic case:

determine if the person has a spinal column
determine if the patient has a nervous system
determine if the patient has a nervous system
determine if the patient is living."

Douglas B. Gates, D.C. Dean of Continuing Education Sherman College of Chiropractic Sherman Report, 1975

"Every action the chiropractor does should have the one purpose to slowly but surely direct the patient's attention to the fact that chiropractic is capable of correcting the 'condition' that is 'causing' the patient's ill health." —Sid E. Williams, D.C. Doctor's Senior Textbook of the Chiropractic Principle, Practice and Procedure

BY

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc.

Harriet Cressman is a lovely lady who lives with her husband on their farm in Pleasant Valley, Pennsylvania. Early in 1963, she developed a backache. Thinking that chiropractors were "bone specialists," she went to one. He did not disappoint her. After examining her and taking an x-ray, he said that her spine was "tilted" but could be corrected by spinal "adjustments." The adjustments took place three times a week for several months. As her back symptoms improved, her treatment was reduced to twice a week, then once a week and then once a month. At this point, although Harriet felt completely well, the chiropractor suggested that she continue adjustments regularly for "preventive maintenance." She did so faithfully for ten years and had no further trouble with her back-as far as she knew. In November 1973, however, the chiropractor took another x-ray and gave her bad news: the x-ray showed "18 compressed discs and progressive osteoarthritis of the spine which was spreading rapidly." It would make her a helpless cripple if she did not have immediate treatment. He reassured her, however, that his new machinery could correct her disc problem and stop the spread of her arthritis.

Staggered by the news, Harriet went home to discuss the matter with her husband. But the chiropractor's receptionist had already telephoned Mr. Cressman to ask him to bring Harriet back immediately to the office. Because of the serious nature of the case, the chiropractor wished to begin "intensive treatment" that same day. The treatment would be in day-long sessions, alternating complete bed rest with "Diapulse" and "Anatomotor" therapy, spinal adjustments and acupuncture. Its cost would be \$11,000 but with payment in advance, the doctor would accept an even \$10,000.

Because of her long association with the chiropractor, and because she was in no mood to trifle about her health, she unhesitatingly went about raising the money. Supplementing her life savings with a bank loan, she paid in advance.

For the next few months, as far as she could tell, Harriet's treatment proceeded smoothly. Every week another full spine x-ray was taken. Each time the chiropractor pointed out on the x-ray how she improved. He also discussed other patients with her and asked her to help talk them into treatment with him. Advising Harriet that her condition might be hereditary, he suggested that other members of her family have spinal x-rays.

Harriet's son Donald did have an x-ray and was told by the chiropractor that he had a "pin dot of arthritis which, if untreated, would spread like

wildfire and leave him crippled within a short time." Donald's cost? With the usual ten percent discount for advance payment—a mere \$1,500!

In May, 1974, the chiropractor suddenly informed the Cressmans that he was moving to California. "What about us?" they asked. "Don't worry," he answered, but their worry increased and turned to suspicion when his answers became contradictory. Pressed by Harriet for the name of another chiropractor who could continue her treatment, the chiropractor named one. "Don't bother to call him before I leave," he said, "because he has already gone over your records and x-rays with me." Harriet did contact her chiropractor-to-be, however, and was told that her name had been "mentioned" but that no record or x-ray review had taken place.

Shocked by the turn of events, the Cressmans consulted medical and legal authorities who suggested that they file criminal charges for "theft by deception." They did. Investigation by the Northampton County District Attorney's office uncovered other patients of the chiropractor who had similar experiences. A medical radiologist x-rayed the spines of Harriet and Donald and offered to testify at trial that neither had any condition which could possibly be helped by chiropractic treatment. When news of the arrest became public, a third patient filed a criminal complaint. The chiropractor, he claimed, had cheated him out of \$2,075 by promising to cure his arm and leg which had been paralyzed by a "stroke."

Now it was the chiropractor's turn to be stunned by the turn of events. He disappeared from public view and communicated through his attorney. He was innocent, he claimed, but was anxious to leave Pennsylvania as soon as possible. [He could not do so until the criminal cases were settled.] If the three complainants would drop their charges, he would return their money. Under supervision of the Northampton County Court, the \$13,575 was returned and the charges were dropped.

Do you wonder whether Harriet Cressman had to be very gullible in order to part with \$10,000 for such questionable treatment? Please let me assure you that she is a very intelligent person who is not at all gullible. Until the chiropractor announced that he was leaving, she simply had no reason to be suspicious. Though generally well-informed, she had never encountered criticism of chiropractic in any newspaper, magazine, book or radio or television program. Like all chiropractors, hers was licensed by the State as a doctor. He seemed warm, friendly and genuinely interested in Harriet. And he did what she would expect a doctor to do. He examined her, took an x-ray, made a "diagnosis" and prescribed a "treat-

ment" plan. She was happy to feel better and, like most people, gave no thought to whether the "treatment" had cured her or whether she would have recovered just as quickly with no treatment at all. Nor did she give any thought to the nature of chiropractic itself, how it began, how its practitioners are trained or what they usually do. She certainly did not suspect that chiropractic is based on the mistaken beliefs of a grocer and his son.

The Development of Chiropractic

Chiropractic claims it began in 1895 when Daniel David Palmer restored the hearing of a deaf janitor by "adjusting" a bump on his spine. Palmer thought he had helped the man by releasing pressure on the nerve to his ear. A grocer and "magnetic healer" by profession, he did not know that the nerve from the brain to the ear does not travel inside the spinal column. But no matter—he soon became certain that he had discovered *the* cause of disease.

At first he kept the "discovery" secret, but by the end of 1895 he set up the Palmer College of Chiropractic to teach it. One of his early pupils was his own son, Barlett Joshua, better known as "B. J." The boy began to help his father run the school soon after it opened. Gradually, however, B. J. took over. In 1906, Daniel David was charged with practicing medicine without a license and went to jail. When he was released, B. J. bought out his interest in the school. Business boomed, and many Palmer graduates opened schools of their own. Cash was the basic entrance requirement for most of them and some even trained their students by mail.

As competition among chiropractors grew, and as many were jailed for practicing medicine without a license, they began to pressure state legislators to license them. Responding to this pressure, perhaps with the hope that licensing would lead to higher standards of education and practice, states began to pass licensing laws. Chiropractors would be allowed no drugs or surgery. Most states limited chiropractic treatment to "spinal adjustment." *But for what*? If all disease was caused by spines which need adjustment, couldn't chiropractors treat everything?

They could. And they did. Over the years, many cases have come to light where chiropractors treated patients for cancer and other serious diseases which should have had medical attention.

The Scope of "Modern" Chiropractic

Does this mean that no matter what is wrong with you, if you go to a chiropractor today, he will diagnose your problem as a "pinched nerve"

and want to treat you with spinal adjustments? According to chiropractic officials, the modern chiropractor most often treats musculoskeletal problems such as backaches and stiff necks. In 1974, Stephen Owens, D.C., Past-President of the American Chiropractic Association, was asked by *Medical Economics* magazine what chiropractors do. Said Owens: "A chiropractor would be silly to take on a disease that's not susceptible to his kind of treatment. He'd just be inviting failure."

Owens' statement was similar to what chiropractors told Congress as they lobbied for Medicare inclusion. In 1970, for example, William Day, D.C., President of the International Chiropractors Association, was questioned by U.S. Senate Finance Committee Chairman Russell Long:

- Long: The medical profession says that your profession claims to treat all sorts of things for which it can do no good whatever.
- Day: Let me state categorically that the chiropractor does not claim to be able to cure all conditions . . .
- Long: How about migraine?
- Day: No.
- Long: You don't treat ulcers?
- Day: No, sir.
- Long: What about hepatitis?
- Day: Hepatitis is an infectious disease. We would refer it to a physician.

Such answers from top chiropractic officials sound quite reasonable and easy to believe. After all, who nowadays could accept Palmer's original belief that all disease had just one cause or that one method of treatment can cure everything? But many studies suggest that official chiropractic is not willing to admit what chiropractors are actually doing.

In 1963 the American Chiropractic Association asked its members what conditions they treated. Of those responding, 85% said that they treated musculoskeletal conditions most frequently. However, the following percentages reported treating other conditions:

Asthma	89%	Pneumonia	32%
Gallbladder	82%	Acute heart conditions	31%
Ulcers	76%	Appendicitis	30%
Chronic heart condition	70%	Pernicious anemia	24%
Tonsillitis	67%	Cerebral hemorrhage	18%
Impaired hearing	59%	Fractures	9%
Goiter	48%	Leukemia	8%
Diabetes mellitus	46%	Cancer	7%

Rheumatic fever	37%	Diphtheria	4%
Hepatitis	32%		

In 1971, skeptical about Dr. Day's testimony, the Lehigh Valley Committee Against Health Fraud sent the following inquiry to 130 members of his organization selected at random from its Directory:

I have been suffering from ulcers and sometimes migraine headaches for many years. I am going to this chiropractor near my home now and he is helping me. But I am not finished treatments and my husband has a job near you. Do you treat these conditions? Do you think I can finish my treatments with you?

Of the 110 who replied, 75% offered treatment and the rest offered welcome without directly answering the questions about treatment. Not one said no. A similar letter asked 92 other chiropractors whether they treated hepatitis. Only one of 72 who replied answered negatively—that he might not be able to take the case because his state law required reporting of communicable disease. However, another chiropractor from the same state said that "chiropractic offers the safest and best care for hepatitis, as well as many other conditions."

In 1973, Dr. Murray Katz, a Canadian pediatrician, surveyed chiropractic offices in Ottawa, Canada. Seven out of nine displayed pamphlets which exaggerated what chiropractors can do. When a chiropractic official responded that use of such pamphlets would cause automatic 30-day license suspension, Katz noted that no chiropractor had ever been suspended for their use.

Pamphlets currently sold by Palmer College claim an important role for chiropractic in a wide variety of illnesses including appendicitis, bronchitis, tonsillitis, epilepsy, liver disease, kidney disease and diabetes. The liver pamphlet states that "Chiropractic is the only science which seeks to find the basic cause producing the abnormally functioning liver." The gallstone pamphlet suggests that "The best approach to a permanent solution to gallstones or any other health problem is to see your chiropractor regularly." The kidney pamphlet concludes: "If you are suffering from kidney disease, the logical course is to visit your chiropractor. He will examine your spine to see where your trouble exists. A chiropractic adjustment will have you feeling better in no time." The diabetes pamphlet, however, pays modest tribute to the medical profession: achieving metabolic balance requires "a cooperative effort between the patient, his medical doctor, and his Doctor of Chiropractic."

In 1979, LVCAHF representatives surveyed local chiropractic offices

and found that 28 out of 35 were using pamphlets. Twelve used the ones sold by Palmer College, eleven used equally outlandish ones from other sources, and five used pamphlets which are more subdued but still exaggerate what chiropractors can do.

Additional evidence that chiropractors do not know their limitations comes from advertising. The Lehigh Valley Committee Against Health Fraud has collected hundreds of newspaper ads which contain false claims. Among them:

"There are very few diseases . . . which are not treatable by chiropractic methods."

"Diabetes . . . the chief cause lies in displaced spinal vertebrae . . ."

"Question: If a surgeon cuts out a tumor of the stomach, does he not remove the cause?

Answer: No, he may have removed the cause of the distress in the stomach, but he has not removed the cause of the tumor and it will probably grow again. A chiropractor adjusts the cause of the tumor."

"If every person were under regular chiropractic care, the incidence of cancer would be reduced by 50% in ten years."

"There is hardly an illness that does not respond to chiropractic care."

In November 1975, I initiated prosecution of a Bethlehem, Pa., chiropractor who had advertised that "intense, fearful constricting chest pain" and "blurred vision" are reasons to see a chiropractor. Other ads in the case claim that "pinched nerves" can cause abnormal blood pressure, hay fever, sinus trouble, arthritis, pleurisy, glandular trouble, goiter, bronchitis and colds, as well as stomach, liver, kidney and gallbladder problems. At a preliminary hearing, a medical cardiologist testified that severe chest pain could represent a heart attack requiring emergency care and that delay in getting such care could be fatal. Seven chiropractors testified in support of the advertising claims. Here is the testimony of one of them:

- Q. Sir, if somebody came to you complaining of blurred vision, would you examine the eye?
- A. I would examine the spine. I examine everyone's spine.
- Q. If someone came to you complaining of goiter, would you examine the goiter?
- A. I would examine their spine again.

The Spine Salesmen

- Q. If someone came to you complaining of intense pain in the chest radiating down the left arm, would you examine, or would you attempt to examine the heart by using an electro-cardiogram machine?
- A. I only check the spine for vertebral subluxations.
- Q. Would you use a stethoscope to check the heart pain at that point if somebody came to you with their complaint?
- A. We don't use a stethoscope in checking the pain. We only check the spine for subluxations.

At a subsequent hearing, the chairman of the Pennsylvania State Board of Chiropractic Examiners and faculty members from three different chiropractic schools endorsed the ads as accurate and representative of what is taught in chiropractic schools.

Chiro-Tel, a nationwide information service, enables people to hear pre-recorded tapes about the chiropractic approach to more than 30 conditions, including heart attacks, ulcers, influenza and prostate problems. Chiropractors pay about \$1,000 per year for the privilege of advertising its toll-free telephone number and having callers referred for treatment.

During the past ten years, I have collected chiropractic journals and textbooks, listened to chiropractic lectures, spoken and corresponded with hundreds of chiropractors and interviewed many of their patients. My effort to define the scope of chiropractic has led me to three conclusions:

1) Many chiropractors do not know their limitations.

2) What chiropractors say about what they do depends greatly upon who they think is listening.

3) Chiropractors themselves are confused and cannot agree about either what they are actually doing or what they should be doing.

Richard C. Schafer, D.C., former ACA Director of Public Affairs, believes "it would be a pernicious act" to delineate the "chiropractic domain" before further research and clinical study are done.

There are undoubtedly some chiropractors who make a sincere effort to quickly refer people who need medical attention to an appropriate physician. Doing this well, however, requires a good medical education.

Which brings us to the question of what chiropractors learn in school.

Chiropractic Education

If D. D. Palmer could look at current chiropractic schools, he would be surprised. In his day, chiropractic training lasted two weeks to one year and covered just spinal analysis and treatment. Today, chiropractic

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school takes four years and includes many subjects which Palmer would think were not related to his "great discovery." Among these are "basic sciences" such as anatomy, biochemistry, bacteriology and pathology, and clinical subjects such as psychiatry, study of x-ray, obstetrics (delivery of babies) and pediatrics. Standard medical textbooks are used in many of these courses.

There are several reasons for these changes. As licensing laws became stricter, many states required testing in basic sciences. Chiropractic schools which could not prepare their students for these exams could not remain in business, and an estimated 600 of them have closed. Seventeen U.S. schools exist today.

Because Palmer's basic theory is false, chiropractic has been under continual attack from the scientific community. Since few people nowadays could believe that all diseases have just one cause or cure, many chiropractors have modified their philosophies. "Modern" chiropractic, its leaders claim, recognizes the value of modern medicine and refers patients who need medical care to proper physicians. "Modern" chiropractors, their leaders claim, recognize that factors such as germs and hormones play a role in disease. "We would like to work together," they say. "While the medical doctor gives antibiotics to kill germs or insulin to control diabetes, we will eliminate pinched nerves so the body can heal itself."

Unfortunately, despite the "new" look of chiropractic education, close observation suggests that much of it is a hoax. In 1960, for example, the Stanford (Calif.) Research Institute published a study which included inspection of two chiropractic schools. They noted that although certain scientific subjects were part of the school programs, the school libraries and laboratories did not appear to be in actual use.

In 1963, the AMA Department of Investigation sent applications from nonexistent persons who did not appear to meet admission requirements listed in chiropractic school catalogues. Only two out of seven were rejected.

In 1966, the AMA published a study of the educational backgrounds of teachers at chiropractic schools. Fewer than half had graduated from college and many who taught basic sciences did not even have degrees in the subjects they taught. When I examined current catalogues four years later, I found that little had changed. Since that time, some chiropractic schools have affiliated with nearby colleges so that students can get training in basic sciences from properly trained instructors. Other chiropractic schools have added teachers who have degrees in these subjects. But neither of these changes will greatly increase the quality of chiropractic training. Basic science courses merely prepare students for the *study* of disease. They do not prepare them to make diagnoses or prescribe treatment.

In 1968, a large-scale study by the U.S. Department of Health, Education and Welfare concluded that "chiropractic education does not prepare its practitioners to make adequate diagnoses or to provide appropriate treatment." The HEW Report quotes many chiropractic statements which helped to bring about this conclusion. Among them:

"For the chiropractor, diagnosis does not constitute, as it does for the medical doctor, a specific guide for treatment . . ."

> *Opportunities in A Chiropractic Career*, 1967 Prepared by American Chiropractic Association and International Chiropractors Association.

". . . chiropractic adjusting is efficacious in handling both the acute and chronic cases of coronary occlusion \ldots "

Neurodynamics of Vertebral Subluxation, 1962 by A. E. Homewood, D.C. (the most widely used chiropractic textbook).

- "Q. Do you think that if an acute appendicitis was identified early enough in the disease process, chiropractic can cure it?
 - A. Yes I do. I say this strictly from experience. I don't say it only from my experience but from the experience of all who practice."

1968 testimony of H. R. Frogley, D.C. Dean of Academic Affairs, Palmer College of Chiropractic.

Chiropractic attacked the HEW Report as "biased," and implied that HEW failed to look at "modern" chiropractic. Considering that the Report was based primarily upon information submitted by leading chiropractic organizations, these charges seem odd. Actually, they are true to form. Whenever chiropractic is attacked by an outsider, it claims its attacker

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is "biased." Whenever it is embarrassed by quotes from within its own profession, it claims they are not representative.

How Dangerous Is Chiropractic?

It should be obvious that to help you, doctors must first be able to figure out what is wrong with you. Yet chiropractors who believe that spinal problems cause all diseases may not even *try* to make medical diagnoses. According to Reginald Gold, D.C., "If you were to come to my office, I wouldn't want to know what is wrong with you. I wouldn't want to know what your symptoms are. I would want to do one thing . . . examine your spine." Gold said this at a public meeting in 1971 after a colleague introduced him as "one of the country's leading authorities on chiropractic" and a lecturer on the faculty of three chiropractic schools. Subsequently he became Vice-President of Development of the Sherman College of Chiropractic and founded another school, the ADIO Institute of Straight Chiropractic.

Although many chiropractors share Gold's philosophy, the majority probably do try to determine whether their patients need medical treatment. Most patients protect themselves from misdiagnosis by consulting medical doctors before they go to chiropractors. Those who start with chiropractors, of course, take a greater risk. Not only are chiropractors poorly trained to make diagnoses, but they are prohibited by law from doing some tests which may be crucial to medical investigation.

Although spinal manipulation has a small place in the treatment of back disorders, in the hands of chiropractors it can be dangerous. I know of one man who was paralyzed from the waist down after a spinal manipulation. Unknown to his chiropractor, spinal cancer had weakened the patient's spinal bones so that the treatment had crushed his spinal cord. In another case I investigated, a patient who took anticoagulants (blood thinners) had serious bleeding into his back muscles after a manipulation. Surgery was required to remove the collected blood.

From time to time, broken bones, paralyses and strokes have been noted in court cases and medical journals. So have deaths from cancer and infectious diseases where chiropractors did not know enough to make medical referral in time for proper medical treatment. Although such serious cases are relatively rare, they are inexcusable. Lesser complications such as sprains are more common, but statistics are hard to collect. Some patients are too embarrassed to publicize them. Some do not realize that their extra discomfort is the result of inappropriate treatment. And others are sufficiently fond of their chiropractor that they cannot believe he has mistreated them.

Peter J. Modde, D.C., believes that "malpractice is an inevitable result of chiropractic philosophy and training." A 1964 graduate of Palmer College, he practices in Renton, Washington, and has been president of his county chiropractic society and chairman of the public relations committee of his state association. Midway in his career, Modde came to two painful conclusions—that chiropractic theory is a delusion and that chiropractors are not adequately trained in diagnosis. Today he limits his practice to physical therapy of patients who have been properly evaluated by medical doctors.

According to Modde, "The more the patient relies on a chiropractor for diagnosis of his case, the more vulnerable he will be. Patients who use chiropractors as primary physicians, either because they don't know any better or because they have been turned off by orthodox medical care, run the greatest risk." In an attempt to remedy this situation, Modde persuaded medical doctors in the Seattle area to offer a special 300-hour course in diagnosis, but his chiropractic colleagues rejected this idea. Thoroughly disillusioned, Modde began to publicize his views and make himself available for expert testimony in malpractice cases. He was expelled from his state and national associations, his malpractice insurance was cancelled, and an unsuccessful attempt was made to revoke his license.

Among the malpractice cases that Modde has reviewed is that of a 47-year-old man who consulted a chiropractor for leg pain of three days' duration. The chiropractor did not remove the patient's trousers, shoes or socks. Instead, he examined only his back, diagnosed "lumbalgia," and manipulated the man's spine. Three days later, when the patient's pain persisted, he consulted a medical doctor who realized that the problem was a blocked artery that had been cutting down circulation of blood to the leg. Had the problem been diagnosed earlier, surgery could have removed the block. By this time, however, amputation of the leg was necessary.

After this case was publicized, the largest chiropractic malpractice insurance company issued a statement to its policyholders which was later published in the ACA Journal of Chiropractic:

It has been mentioned in various locations of the country that some chiropractors diagnose and treat patients through their clothing.

Following discussion with legal counsel . . . it was determined by the NCMIC Board of Directors that legal defense of

this kind of case was more difficult and consequently more costly to our company. A frequent basis for claims against our insureds is failure to properly diagnose the patient's condition. A diagnosis or treatment should not be made through the patient's clothing if this will interfere in any way with giving proper care. We recommend that careful discretion concerning this procedure be exercised by all.

(In other words, it doesn't look good in court!)

Unnecessary Radiation

X-rays by chiropractors are a leading source of unnecessary radiation. A full-spine x-ray exposes sexual organs to from 10 to 1,000 times as much radiation as a routine chest x-ray. This is dangerous because it can lead to increased numbers of birth defects in future generations. Most chiropractors use x-rays. A 1971 survey of the *Journal of Clinical Chiropractic* suggests that more than ten million x-rays were taken each year by U.S. and Canadian chiropractors. Of these, two million were the 14 x 36 inch full-spine type. Chiropractic inclusion under Medicare, which began in July 1973, will probably increase these numbers greatly.

Chiropractors claim that x-rays help them locate the "subluxations" which D. D. Palmer imagined were the cause of "pinched nerves" and "nerve interference." But they do not agree among themselves about what subluxations are. Some chiropractors believe that subluxations are displaced bones which can be seen on x-rays and can be put back in place by spinal adjustments. Other chiropractors define subluxations vaguely and insist that they do not show on x-rays. But what chiropractors say about x-rays also depends upon who asks.

When the National Association of Letter Carriers Health Plan included chiropractic, it received claims for treatment of cancer, heart disease, mumps, mental retardation and many other questionable conditions. In 1964, chiropractors were asked to justify such claims by sending x-ray evidence of spinal problems. They submitted hundreds, all of which were supposed to show subluxations. When chiropractic officials were asked to review them, however, they were unable to point out a single subluxation.

Some chiropractic textbooks show "before and after" x-rays which are supposed to demonstrate subluxations. In 1971, to get a closer look at such x-rays, our Committee challenged the Lehigh Valley Chiropractic Society to demonstrate ten sets. They refused, suggesting instead that we ask the Palmer School to show us some from its "teaching files." When we did, however, Ronald Frogley, D.C., replied, "Chiropractors do not make the claim to be able to read a specific subluxation from an x-ray film." Frogley might have answered more cautiously had he anticipated the wording by which Congress included chiropractic under Medicare. Payment would be made for treatment of "subluxations demonstrated by x-rays to exist." To help chiropractors get paid, the American Chiropractic Association has issued a Basic Chiropractic Procedural Manual which defines subluxations as anything which can interfere with spinal function and says, "Since we are obligated to find subluxations before receiving payment, it behooves us to make an objective study of what films show in the way of subluxations . . ." Referring to the Letter Carriers experience as an "unfortunate debacle which almost destroyed chiropractic credibility in Washington," it cautions, in italics, "The subluxations must be perfectly obvious and indisputable." (These strategic comments were omitted from the second edition of the manual.)

If a chiropractor limited his practice to muscular conditions such as simple backaches, if he saw patients only on referral from medical doctors after medical diagnosis has been made, if he were not overly vigorous in his manipulations, if he consulted and referred to medical doctors when he couldn't handle a problem, and if he avoided the use of x-rays, his patients might be relatively safe. But he might not be able to earn a living.

The Selling of the Spine

A chiropractor's income depends not only on what he treats but on how well he can sell himself. In 1974, the American Chiropractic Association estimated that the "average" chiropractor earned about \$31,000 per year, but the meaning of this figure is not clear. Many chiropractic graduates do not remain in practice and others are forced to practice part-time. Top chiropractic salesmen can earn a fortune.

Intensive selling of the spine begins in chiropractic school as instructors convey the scope and philosophy of chiropractic to their students. After graduation, chiropractors can get help from many practice-building consultants who offer seminars and ongoing management advice. The Drennan Seminar, which currently costs \$195 for a two-day meeting, offers to "double your income and patient volume in 90 days." In 1972, when its tuition fee was \$2,500, it advertised that one out of every ten registrants would receive a free Cadillac. Ads for the Stoner Chiropractic Research Foundation offer to "show you how to make \$350,000 as easily as \$50,000." One in 1976 promised "no more end of the month jitters" and depicted a chiropractor headed for the First National Bank, pushing a wheelbarrow overflowing with stacks of money. Dr. Robert A. Jarmain invites chiropractors to a three-day seminar to "build the \$1,000,000 practice." In one weekend, for \$250, the Yennie Chiropractic Success Seminar offers to "put you on the road to total success" and to "upgrade your practice into the \$100,000—\$200,000—\$300,000 service levels. Its director, Dr. Richard Yennie, claims to have "delivered as much as \$10,000 of service in one week," working with another chiropractor and three aides in a small office. For \$5,000, La Forte Chiropractic Consultants will provide "all the training you need to increase your practice a minimum of \$50,000 in just one year. And that's only our guaranteed minimum. Many of our clients have doubled and tripled that figure."

Clinic Masters believes that the doctor who has an "ideal practice" usually earns \$100 an hour or more for his time spent in the office. Its clientele "is comprised of the very cream of the chiropractic profession . . . educators, leaders, state board members, state association officers, and hundreds upon hundreds of outstanding practitioners who are held in high esteem by their communities." Its fee for a program of seminars and ongoing consultation is \$20,000—\$100 initially and the rest payable as income rises. In 1973 its directors said, "Many of our clients have moved right on up through the \$50,000, \$100,000, \$150,000 income levels to \$300,000 and above" and that "before long, practice incomes of \$500,000 will not be rare." A 1978 ad stated that 3,000 chiropractors had enrolled in its program and increased their incomes "on the average, more than \$50,000 a year." Two of the topics at its seminars have been *How To Increase Insurance Business \$100,000 Or More A Year* and *How To Achieve The 'Optimum Gettable' With Every Patient*.

Clinic Masters promotes the idea that higher income means greater service to patients. Such service includes charging for each adjustment or other unit of treatment instead of a flat office fee, an overall "case" fee instead of charging per visit, and "intensive care," which adds room or ward fees to the bill. In 1974, 132 of its clients reported charging an average of \$129.43 per day for intensive care.

Clinic Masters apparently wants the details of its advice to remain a private matter. Its clients sign a secrecy agreement and new applicants are checked against directory lists to make sure that they really are chiropractors. It also offers a \$10,000 reward to anyone who is first to report "disparaging statements about Clinic Masters or its clients" which lead to a successful lawsuit.

Santavicca and Associates, founded by Flavian Santavicca, Jr., charges \$30,000 for its practice-building advice—\$100 for an initial three-day seminar and the rest payable as income rises. An article in *The American*

Chiropractor (a journal) calls Santavicca "the pioneer of a unique program of health care encompassing spinal manipulation, physical therapy, nutrition and exercise therapy."

In 1974, after graduating from Palmer College of Chiropractic, Santavicca opened an office in Washington, Pa., a community of about 20,000 people. "My first month cash deposit was approximately \$4,000," he revealed in the journal article. "The second month moved to \$7,000; the third month \$10,000 and the fourth month was \$14,000. By the tenth month in practice I was delivering over \$25,000 a month in *quality* health care. This steady growth continued right up to \$63,000 a month . . . I invested very wisely in a planned real estate investment program. As a result of this effort I was able to achieve financial independence in the short period of three years."

Dr. Santavicca then retired from practice, moved to Florida and began teaching his methods to others. About 200 chiropractors have enrolled in his program so far, and some of them have reached incomes in the \$150,000-\$200,000 range.

What does Santavicca promote? When he practiced in Pennsylvania, his newsletter to patients suggested that chiropractic treatment is appropriate for more than 100 diseases and conditions, including appendicitis, pneumonia, hernias, leukemia and "certain types of sterility." In a recent newsletter to clients, he recommended the sale of a \$2,262 fourmonth program for chronic patients. Included in the package were 44 office visits for adjustments and massage (on a vibrating machine called a "Spinalator"), \$385 for diagnostic evaluations (including \$90 for two hair analyses) and \$284 for vitamins.

The most expensive practice-building firm is the RoseBusch, founded by Drs. W. A. Rose and R. E. Busch. Its fee is \$300 for an initial weekend seminar. If the client wishes to continue in the program, he pays \$100 per month for 18 months, a total of \$80,000 in three "phases" as his income rises, plus a final \$10,000 fee for "sustaining membership" in the RoseBusch.

The largest practice-building firm is the Parker Chiropractic Research Foundation of Fort Worth, Texas, founded by James W. Parker, D.C. Recent ads for its Parker School of Professional Success Seminar claim that 70,000 doctors, spouses and assistants have attended some 300,000 times, that more than 20 million "extra patients" have been served as a result, and that increased income for chiropractic was "into the billions." First-time chiropractors pay \$300 for the four-day course and receive a diploma for completing "the prescribed course of study at the Parker Chiropractic Research Seminar." Parker's basic course is built around a 335-page Textbook of Office Procedure and Practice Building for the Chiropractic Profession. Parker appears to believe that the scope of chiropractic is unlimited. The Textbook suggests that patients be offered a "free consultation" but led into an "examination" which costs them money. It suggests that "One adjustment for each year of age is a rough thumbnail guide of what people will willingly accept and pay for," but "If in doubt about the payment or the return of the patient, take only the smaller x-rays on the first visit but ostensibly x-ray fully."

Share International, Parker's sales organization, sells a wide variety of practice-building aids. One is a chart which pictures a spine and claims that more than 100 diseases are related to nerve pressure at its various parts. Included are: hernias, crossed eyes, whooping cough, pneumonia, anemia, gallbladder conditions, hardening of the arteries and thyroid conditions. (See chart below.)

Until recently, for about \$20, chiropractors could get copies of 107 advertisements to "guide" preparation of their own ads. Most of the ads are case histories, and the instructions which accompany them suggest: "Re-type each ad on your own stationery for presentation to the editor. This would indicate that they are your own creations, and that the cases mentioned . . . are from your own files." Sale of this advertising kit was discontinued after its instructions were exposed in Jack Anderson's syndicated newspaper column.

For about \$45, graduates of Parker's basic course can purchase a set of ten cassette tapes which give additional advice. In Sentences that Sell, Parker describes how chiropractors associated with him test ideas scientifically and report back to him how they work. In Ways to Stimulate Referrals, he tells how to steer conversations to sick people. "In a casual, natural way," patients should be asked about the health of their families, friends and neighbors. Should any be ailing, patients should be urged to be "Good Samaritans" by telling them about "all the wonderful things" that chiropractic might do for them.

Despite his questionable methods, Parker appears to be a highly respected and integral part of the chiropractic world. He is a welcome lecturer (and major financial contributor) at chiropractic schools, and school officials often attend ceremonies at his seminars. In 1970, when one of my Committee members merely requested a catalogue from the Texas Chiropractic College, he received a letter from Parker telling how chiropractors often reach incomes of \$50-\$100,000 per year.

Sid Williams, D.C., is another leading promoter. His many enterprises include Si-Nel (a chiropractic supply house), *Today's Chiropractic* (a

CHART OF EFFECTS OF SPINAL MISALIGNMENTS

"The nervous system controls and coordinates all organs and structures of the human body." (Gray's Anatomy, 29th Ed., page 4.) Misalignments of spinal vertebrae and discs may cause irritation to the nervous system and affect the structures, organs, and functions which may result in the conditions shown below.

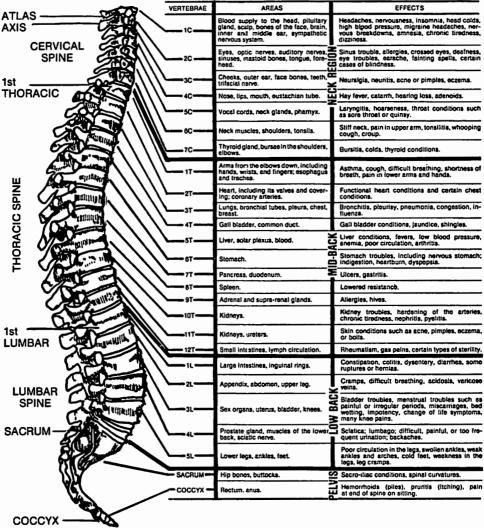


Chart from a brochure distributed in 1979 at a New York Chiropractic College Clinic.

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journal), *Health for Life* (a testimonial newspaper), the Life Foundation (for public education), the Life DE Meeting (a practice-building course) and the Life Chiropractic College. According to a College booklet, thousands of chiropractors follow his philosophy. Known as "Life Fellows," they appear to believe that virtually all conditions are caused by nerve interference and should be treated by chiropractic methods. Williams recently appeared on CBS' 60 *Minutes*, adjusting the neck of an infant girl. When asked why, her mother said the adjustments (begun on the child's third day of life) were "preventative measures—to keep her healthy."

The 1973 Si-Nel catalogue states that Sid and his wife, Nell, attended Palmer Chiropractic College together. "Afterwards they established a joint practice in the little town of Austell, Georgia. At the time, the population was only 500, and being ten miles from Atlanta, it was considered to be out in the country. Nevertheless, they went to work with such fervor that soon the young doctors were seeing 1,000 patients a week. Their practice grew to 1,800 a week . . . and they set up 20 associate clinics throughout the Southeast . . . A few years later, Dr. Sid began the formation of the D. E. Meetings, now held quarterly in Atlanta, with an average of 1,400 people attending regularly . . . In 1969 Dr. Williams was named Chiropractor of the Year by the Georgia Chiropractic Association."

The DE meetings are intended to inspire chiropractors to greater selfconfidence as well as greater income. The fee is \$325 for a three-day program during which, according to a recent brochure, "The DE Team speakers will show you how to increase your practice with the secrets that have enabled them to build their practices into the \$300,000-\$500,000 range." Other ads for the seminars boast that top instructors see 200-400 patients per day.

The practice-building aspects of the DE meetings are centered around the 254-page Dynamic Essentials of the Chiropractic Principle, Practice and Procedure. This textbook resembles that of Dr. Parker, but is far more detailed in its instructions. The initial phase of patient contact has three parts: the consultation, the examination (including x-ray of every patient!), and the report. "Every step of your procedure," says the book on page 129, "should be thorough enough to convince the patient that you are not overlooking anything. The sophisticated age in which we live prevents the simplicity of chiropractic from being understood by the average person . . . The examination procedures are not diagnostic, they are to emphasize to the patient that a weakness exists in his body and that they have been caused by spinal fixations. By fortifying the patient's knowledge of the 'spinal cause' by the use of test instruments and graphs, the patient is able to see beyond any doubt that he is actually physically sick; that a spinal condition caused it and that something needs to be done chiropractically to correct it."

Much of the DE text is composed of statements that are recommended to sell the patient on chiropractic care. On pages 98–100, for example, Williams recommends that the doctor feel the spine for tender spots, "predict the conditions that might occur underneath," ask whether various symptoms have yet occurred, and if the patient answers no to any of them, say: "Well, Mrs. Jones, it certainly is a wonder. I must say you have a strong constitution in order to stand up under the nerve problems that you have. You have trouble in many areas, but you don't have many symptoms as of yet. But I would make the prediction that if you hadn't turned to chiropractic, you'd be a very sick girl shortly." Page 148 suggests telling patients that "Medicine is very effective in its place; however, it is a simple fact that it is becoming obsolete. The theory of medicine is false."

Williams' suggested goal is apparently to convince the patient to continue "preventive maintenance" once a month for life. (Page 75 notes that "once the patient has experienced relief through chiropractic adjustments, he will accept almost any reasonable recommendation.") If the patient asks, "But will I have to continue with chiropractic care as long as I live?" the recommended reply (page 175) is, "(Chuckling) No ma'am, you won't have to continue it as long as you live. Only as long as you want to stay healthy. Every spine needs some maintenance, Mrs. Jones. My family and I are checked regularly on a monthly basis, and more often when we think that it is necessary. Yes, if you want to stay healthy, you will have to continue some chiropractic care."

Page 216 describes a technique called "sealing the patient in." First the patient is asked if various positive responses have occurred yet. If any have, he is told he even looks better. Then he is instructed to rest quietly in the chiropractor's office so he can get "filled up with the thought that he is better, looks better, and he will be able to tell all his friends how much better he is." But page 218 cautions: "Keep in mind that we don't want to feature 'Well' or 'Cure' too soon or too strongly because the patient won't show up for the next visit since he thinks 'I'm ready to quit; I am well.' He is never well—just better. Don't emphasize improvement too fast. Instead we say, 'We want to get you over on the good side of the ledger and keep you there.'"

A set of six recorded lectures from Williams' April 1978 DE meeting is available for \$30. One titled The Patient Report That Eliminates Premature Dropouts advises chiropractors to use a magnifying glass to point out to patients the "fixations" on their x-rays. "If you'll remember the first time someone showed you an atlas and the condyles of an A to P cervical view, it looked like so much nothing. But you can get the magnifying glass out and . . . you'll say 'Here . . . here.' and they'll say 'Um hm . . . Um hm.' and they'll go home and they'll say, 'I saw it. He showed it to me!'" But if patients don't look convinced while listening to the report, Williams suggests in the lecture called Office Procedures of the Big Men, "Tell 'em they ain't ready—you gotta re-x-ray 'em."

How often should people have their spines checked and adjusted? Reginald Gold hopes that "every man, woman and child will see his chiropractor once a week for life" so that they can live "120 to 150 years." Parker and Williams suggest monthly check-ups. Introduction to Chiropractic, a widely-circulated new booklet by Louis Sportelli, D.C., asserts that "Regular spinal adjustments are a part of your body's defense against illness" and "If parents were as concerned about having their children's spines checked for nerve interference as they are about having their children's teeth checked for cavities, they would be helping their youngster to attain a healthier state of well-being." A public relations kit distributed by the American Chiropractic Association recommends telling the public. "In the maintenance of health, nothing is more important than periodic spinal examinations." Writing in a Parker publication, L. Ted Frigard, D.C., a prominent California chiropractor, adds that "A patient is much more satisfied if you give him an adjustment every time he comes into the office. If you do not . . . you will have to spend a lot of time explaining why you didn't."

Recently, LVCAHF representatives asked 35 local chiropractors how often people who felt well should have their spines checked. Almost all recommended at least one check-up per year. The majority gave answers in the range of 4–12 times a year.

Curiously, as far as I know, no chiropractic organization, journal or school textbook has ever suggested how often spines should be examined or even suggested that guidelines might be useful.

A few years ago, our Committee sent a healthy four-year-old girl to five chiropractors for a "check-up." The first said the child's shoulder blades were "out of place" and found "pinched nerves to her stomach and gallbladder." The second said the child's pelvis was "twisted." The third said one hip was "elevated" and that spinal misalignments could cause "headaches, nervousness, equilibrium or digestive problems" in the future. The fourth predicted "bad periods and rough childbirth" if her "shorter left leg" were not treated. The fifth not only found hip and neck problems, but also "adjusted" them without bothering to ask permission. Unfortunately, the adjustments were so painful that we decided to postpone further investigation until adult volunteers could be found.

Our next volunteer, a healthy 29-year-old housewife, visited four more chiropractors for check-ups. The first diagnosed an "atlas subluxation" and predicted "paralysis in 15 years" if this problem was not treated. The second found many vertebrae "out of alignment" and one hip "higher" than the other. The third said the woman's neck was "tight." The fourth said that misaligned vertebrae indicated the presence of "stomach problems." All four recommended spinal adjustments on a regular basis, beginning with a frequency of twice a week. Three gave adjustments without warning—one of which was so forceful that it produced dizziness and a headache that lasted for several hours.

Another volunteer, a 36-year-old housewife, visited seven other chiropractors. The first found "minor structural problems" in the neck, midback and lower spine regions and recommended 4–6 treatments. The second found nothing wrong. The third said the woman's left hip was lower than her right hip, adjusted a few areas of her spine (painfully) and suggested she return if she felt "sluggish." The fourth said her right hip and several vertebrae were "twisted." After pressing on the offending body parts, he suggested a return appointment in a week to see if the adjustments held. The fifth chiropractor thought there might be a serious problem with a "pinched nerve" in the neck that could cause "sinus trouble"—but he could not be sure without an x-ray. The sixth, who called himself a "herbologist," used muscle-testing to diagnose a "vitamin C deficiency" and indicated he could do extensive nutritional testing if requested. The seventh thought there was a hip problem, adjusted it, and recommended an x-ray for further diagnosis.

Chiropractic has been described as the "greatest tribute to applied public relations that the world has ever known." Despite its shortcomings, millions of people have tried it. Chiropractic's ultimate goal is inclusion in national health insurance. And unless concerned citizens can find ways to organize and protest, your tax dollars will wind up paying for D. D. Palmer's dreams.

Overview

In 1895, modern medicine was in its infancy. Many of its theories were just as ridiculous as that of Palmer. Since that time, medicine has become a science. Chiropractic, however, has not. The only science chiropractic has developed is that of salesmanship.

Chiropractors, of course, will deny this. They will say that since I am

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"biased," this chapter is deliberately slanted to make them look bad. But what I have reported comes mainly from its schools, its organizations, its recognized leaders and its official publications. My data truly represent chiropractic as it is today.

This book will tell you about many practitioners who have gained large and faithful followings even though their theories make no sense at all. Such practitioners rely upon salesmanship and the fact that most people get better without treatment.

Chiropractors win many friends with their warm manner, their seductive techniques, and their physical therapy and massage. But going to a chiropractor is a distinct gamble.

Recommended Reading

At Your Own Risk: The Case Against Chiropractic, by Ralph Lee Smith. Bonesetting, Chiropractic and Cultism, by Samuel Homola.

Chiropractors: Healers or Quacks? Consumer Reports, Sept., Oct. 1975. Independent Practitioners Under Medicare (The 1968 HEW Report on Chiropractic).

- Malpractice Is An Inevitable Result Of Chiropractic Philosophy And Training, by Peter J. Modde, D.C., Legal Aspects of Medical Practice, Feb. 1979.
- A Scientific Test of the Chiropractic Theory, by Edmund S. Crelin, Ph.D., American Scientist, Sept. 1973.

"The desire to take medicine is perhaps the greatest feature which distinguishes man from animals."

-Sir William Osler

"Advertising should be free of statements, illustrations or implications which are offensive to good taste, and should not distort or exaggerate facts as to size, appearance, effect or usage."

> From the Code of Advertising Practices of the Proprietary Association, 1972

> > BY

MURRAY S. KATZ, M.D.C.M. Chairman, Committee on Health Affairs Consumer Association of Canada Suppose you buy a car and when you try to drive off the dealer's lot, you find it won't start. Looking under the hood, you discover it has no engine. You would call this a fraud and would not accept it. Yet throughout North America, buyers of many patent (nonprescription) medicines are getting the equivalent of cars without engines—such products as "stress formulas" which contain nothing special to protect you from stress, "tonics" which contain nothing to increase vitality, and "germ-killers" which do not kill enough germs to be helpful. When you buy a car that has no engine, the fraud is easy to discover. But buyers of patent medicines have no simple way to tell when they are being cheated.

Used properly, patent medicines can relieve the symptoms of certain ailments. (Patent medicines are also called "over-the-counter" or "OTC" drugs.) Used properly, they can avoid the time and cost of unnecessary visits to a doctor. But the scientific facts are clear. The majority of nonprescription medicines do not deserve the credit the public gives them.

Consider mouthwashes, for example. There are more than one hundred such products on the market. People tend to buy them for three reasons: to make their breath smell better, to clean their teeth, or to treat colds and sore throats. Yet mouthwashes cannot do any of these things effectively.

A major cause of bad breath is food which is decaying between and on the surfaces of the teeth. Mouthwashes generally do smell good and leave a scented odor in your mouth (for a few minutes) which could mislead you into thinking that your mouth is clean. But there are no shortcuts to good oral hygiene. Rinsing your mouth with mouthwash cannot remove food particles as effectively as proper brushing. Nor is a mouthwash more effective than plain water. Good oral hygiene should also include the use of dental floss to prevent the build-up of plaque, the sticky bacterial film which is a factor in producing tooth decay. Bad breath can also be caused by what you eat. Alcohol, as well as aromatic foodstuffs like garlic and onions, can cause unpleasant breath odors which actually come from your lungs. Here again, any effect which mouthwash has in masking such odors is likely to last only a few minutes. Other causes of bad breath—gum disease, throat infections, postnasal drip and the like—are easily detectable and need not result in mouth odors if properly treated.

Ads for *Isodyne*^{*} mouthwash have claimed that it can "stop sore throat pain" and "reduce inflammation." These claims may be true in the sense that rinsing the mouth with a liquid may relieve sore throat symptoms

^{*} Author's note: I do not mean to imply that products named in this chapter are the only (or the worst) offenders in their product groups. I have simply selected examples with which readers are likely to be familiar.

temporarily. But rinsing with mouthwash is no more effective than rinsing with warm water. *Listerine* advertising has been more misleading. The claim that *Listerine* "kills germs on contact" suggests that the product exerts a curative effect. It is true that mouthwashes can kill some germs on contact, but this will not prevent or alter the course of an infection. Germs in the tiny crevices in the mouth and within infected tissues cannot be reached or washed out. Germs which are washed off the surface of infected areas are quickly replaced. In 1975, the Federal Trade Commission ordered Warner-Lambert, the company that makes *Listerine*, to spend \$10 million on corrective advertisements to inform consumers that the mouthwash offers no protection or relief from colds or sore throats.

Some mouthwashes have a high alcohol content which can cause excessive drying of the mouth. But a more subtle danger exists for mouthwash users. The claims of germ-killing may mislead people into thinking that mouthwash is a sensible treatment for a cold or sore throat. Many people feel safe in treating themselves with a mouthwash and then consulting a doctor if they don't improve. Is there any harm in that? Yes, there can be. The decision about consulting a doctor should be based on more scientific grounds.

Managing Your Own "Cold"

If you decide to treat your cold by yourself, your first step should be a preliminary survey. Do you have a fever? A skin rash? An earache? A sore throat? Do you feel well enough to carry out your usual activities for that day? Or do you feel "lousy" or "really sick"?

If you have an earache, there may be a bacterial infection present. This requires a visit to your doctor. Don't put any patent medicine drops in your ear. They won't cure you and may only make examination by the doctor more difficult. If the doctor determines that you have a bacterial infection, he will prescribe an antibiotic. Don't try to treat an earache with the so-called "decongestants" of cough and cold medications. They won't get rid of the infection.

If you have a fever, you might decide to use aspirin or acetaminophen. One brand is as good as another—so buy the cheapest. The correct dose of either for adults is two five-grain tablets every four to six hours. As a general rule, if a fever above 101°F, taken rectally, persists beyond 48 hours, it's time to consult a doctor. The presence of a rash is also reason to contact your doctor. A rash is not a symptom of a cold.

Sore throats can often be relieved by gargling which helps to break up dried mucus crusts at the back of the throat. Salt water (one-half tea-

spoon of salt dissolved in a glass of warm water) is an inexpensive preparation. Don't waste your money on mouthwash or a medicated gargle. If you have a sore throat and feel "lousy," that is reason to consult a doctor. Sore throats caused by the streptococcus bacterium should be treated with an antibiotic. Left untreated, a small percentage of "strep throats" will lead to rheumatic fever or glomerulonephritis (a kidney disease). Your doctor can diagnose a strep throat by means of a throat culture.

If your nose is blocked, you may be tempted to seek relief with decongestant nosedrops or nasal sprays. You should do so with great caution. Use of these products can lead to "rebound" congestion—actual worsening of the congestion caused by too frequent use. Rebound can be a worse problem than the original reason for using the decongestant. So nosedrops or nasal sprays should be used only when absolutely necessary, at most two or three times a day. You might, for example, decide to use one at bedtime so that your stopped nose does not keep you from sleeping. The best type of nasal decongestant is one that contains a single "vasoconstrictor" drug such as phenylephrine hydrochloride or xylometazoline.

Decongestants may relieve a clogged nose when taken by mouth in adequate doses. The commonly used ones are pseudoephedrine and phenylpropanolamine. But they may also cause nervousness, dizziness, insomnia and a rise in blood pressure. Some products sold without a prescription (*Contac*, for example) contain a decongestant or other ingredients in so-called "sustained" release form—meant to give "twelve-hour relief." The absorption of such preparations tends to be erratic, however.

Decongestants can be helpful in the treatment of sinus infections by facilitating drainage of mucus from the sinuses.

Cold and Cough Remedies

The North American public spends close to one billion dollars per year for so-called cough or cold remedies. These usually contain two or more of the following ingredients:

1) A pain reliever such as aspirin. Much of the relief which people get from cold remedies is the result of the aspirin they contain. But many aspirin-containing products do not provide the best amount of aspirin to help you. The simplest and least expensive way to get the proper dosage of aspirin is to use ordinary aspirin tablets.

2) A nasal decongestant.

3) An anti-cough agent such as dextromethorphan or codeine sulfate. By interfering with your cough reflex, these drugs can be useful in controlling a dry, hacking cough. The dosage of dextromethorphan is 10

milligrams three times a day. The dosage of codeine sulfate is 10 milligrams every four to six hours, but in many states, codeine cannot be purchased without a prescription. Sucking on hard candy, drinking warm liquids, and using a vaporizer with plain water (no camphor) may also be effective. If these measures are not successful in relieving a dry, hacking cough within 48 hours, your next step should be in the direction of your doctor. Cough suppressants should not be used for *productive* (phlegm-producing) coughs without a doctor's advice—for it may be important to allow your lungs to clear themselves by coughing up secretions.

4) An antihistamine such as chlorpheniramine. Antihistamines tend to dry the membranes of the nose and throat. They are primarily effective against allergies. Antihistamines can cause drowsiness, a potentially troublesome side effect. If you think you have symptoms caused by an allergy, ask your doctor which antihistamine to use.

5) An expectorant such as ammonium chloride, glycerol guaiacolate (guaifenesin) or syrup of ipecac. These ingredients are supposed to help you cough up thick mucus from your lungs. But their effectiveness is questionable. In some cases they merely increase the amount of secretions present—making it harder for your lungs to clear themselves. The best way to help loosen secretions in your lungs is to drink plenty of liquids.

Some cough medicines combine expectorants with cough suppressants. This is questionable because these ingredients may work against each other. *Vicks Formula 44*, for example, contains an expectorant which is supposed to loosen secretions, an antihistamine which dries secretions, and an antitussive which could prevent you from coughing up whatever secretions are produced.

Over the years, most cough and cold remedies have been irrational mixtures of ingredients. Many have contained substances which do nothing to help you. Some have contained potentially useful drugs in amounts too small to be effective. And some have contained ingredients which are potentially dangerous or which work against each other. Currently, many cough and cold remedies are being reformulated in response to the OTC drug review being conducted by the FDA (described later in this chapter). Judging the outcome of this review process will take several years. In the meantime, your basic policy should be to use products that contain only one active ingredient. (There is no sense treating symptoms you don't have!) For most colds, plenty of fluids—plus aspirin (or acetaminophen) for aches, pains or fever—will be all you need.

Don't waste your time and money trying one irrational product after another or looking for a miracle cure.

Many people treat the aches and pains which accompany a cold with camphor-containing products. Among the favorites are Vicks VapoRub, Camphor Spirits, Menard's Liniment, Ben-Gay Children's Rub, Camphorated Oil and Sloan's Liniment. Camphor's medicinal aroma leads people to think it is good for them.

When rubbed on the skin, camphor causes redness because of its irritating properties. It can also have a local anesthetic effect, causing numbness of the skin and mucous membranes. When inhaled, camphor gives a cooling sensation. What actually takes place, however, is that nerve endings in the nose which are sensitive to cold are stimulated.

Does all of this do any good? Available evidence shows that camphorated products have no beneficial effect upon the duration or symptoms of a cold and may sometimes be harmful. Covering the skin with a camphor-containing product may give a pleasant, warm feeling. But it also may interfere with the body's ability to lower a fever. Camphor's penetrating odor may give the impression that it is opening clogged nasal or bronchial passages. But far from clearing your respiratory passages, its vapors actually irritate them more. You can experience this for yourself by holding an open bottle of a camphor product near your nose. After a few minutes, your eyes will start to tear and you may even have to cough.

Camphor products are highly poisonous when eaten. Each year, hundreds of curious children and careless adults are poisoned (some fatally) by accidental consumption of these products.

Consumer Psychology

If you were buying a car, many factors might influence your selection. But if it couldn't run, you wouldn't want it. With patent medicines, however, consumer satisfaction does not necessarily require the presence of effective ingredients. There are two reasons for this. The first is that most illnesses are self-limiting. The second is a matter of psychology.

When people feel better after taking a medication, they tend to think that the medication has helped them. But to *really* determine whether a medication is effective, it is necessary to know whether improvement would happen just the same without it. Scientists can test this by comparing treated and untreated ("control") groups. However, evaluations of drug effectiveness must also take into account the "placebo effect" whereby people feel better simply because they think they are being helped. The placebo effect can be both powerful and misleading. For example, about 30 or 40 out of every 100 people will notice an improvement in their headache even if given a sugar pill!

Confidence in a remedy can enhance its placebo effect. The patent drug industry knows this and tries hard to build up your faith in its products. Spokesmen in its ads talk like doctors. Their sales pitches use scientific-sounding words like "analgesic," "decongestant" and "antiinflammatory agent." Whether the consumer can understand these terms doesn't matter. As long as a favorite medicine contains one or more of them—that's good enough. Many products come in fancy packages. Fancy colors, shiny capsules, special flavors, trademarks and brand names can all build confidence. Advertising imagery is used to arouse fantasies while directing attention away from a product's ingredients.

The use of a body part in a drug's brand name is another sales technique. Leaving the details to your imagination, such names suggest the ability to treat the body part, strengthen it, or both. *Carter's Little Liver Pills* was a classic example of a misleading brand name for the pills contained absolutely nothing that was good for your liver. Nor have the various non-prescription "kidney pills" contained any ingredients that could help your kidneys.

Drug-makers take advantage of people's desires to control their own destinies by "doing something" instead of letting nature run its course. Drug ads also encourage you to be your own doctor by placing labels on common symptoms. Everyone feels sluggish or tired at times. But in the hands of the ad-makers, "sluggishness" becomes a possible symptom of "kidney congestion" and "tired blood" becomes a likely cause of fatigue. It is not necessary for most people to have a bowel movement each day or on a rigid timetable. But in the hands of the ad-makers, "irregularity" becomes a symptom which needs their laxatives. For minor eye irritation, eyewashes offer little or no advantage over the body's natural tears. But the ad-makers suggest it for "tired eyes." People's fears of being unattractive are often aroused and exploited to sell products. Female genital deodorants, which cannot cure any underlying odor problem and are sometimes dangerous, illustrate this type of exploitation.

"Endorsement" by the medical profession is another advertising ploy. Ads for Dristan, for example, claim that it contains "the decongestant most prescribed by doctors." This refers to phenylephrine, which doctors do commonly prescribe. But they do so as a single-ingredient medication—for topical use as nosedrops—and not combined with an antihistamine as in *Dristan Nasal Mist*. Nor do doctors consider phenylephrine effective in the 5 mg dosage found in *Dristan Oral Decongestant Tablets*. The unnamed "pain reliever most recommended by doctors" is,

of course, simple aspirin. But many cold remedies contain a less-thaneffective dose or combine it with other ingredients which doctors would not recommend.

Public faith in patent medicines is enhanced by widespread beliefs that products must be effective in order to be marketed and that health advertisements must be truthful "or else they wouldn't be allowed." It is true that many blatant falsehoods have been subject to government prosecution (see Chapter 29). But the patent drug industry has generally stayed one step ahead of the law. The U.S. Federal Trade Commission had to struggle for 16 years to get the word "Liver" removed from *Carter's Little Pills*!

Patent drug-makers have been remarkably effective in selling their products. One study reported that during a 48-hour period, 25 percent of persons in an upstate New York area had taken a non-prescription drug. Another study, done in Canada, showed that 58 percent of people questioned had used at least one non-prescription medication during the previous 48 hours. Of these, about 60 percent had taken one drug, about 25 percent had taken two, and about 20 percent had taken three or more!

A few years ago, the attorneys-general of 17 states petitioned the U.S. Federal Communications Commission to halt TV advertising of patent drugs between 6 a.m. and 9 p.m. daily. Led by Massachusetts Attorney General Francis X. Bellotti, the group charged that such advertising leads to drug abuse among children. In related testimony before the House Communications Subcommittee, Bellotti said, "Madison Avenue encourages everyone, including children, to take drugs to get up, to stay awake, to stay slim, healthy and beautiful, to eliminate minor pain or discomfort and to go to sleep." He charged further that "as long as the networks continue to accept large amounts of advertising to promote over-thecounter drugs, it is unrealistic to expect that any self-regulation will amount to anything more than tokenism."

Unfortunately, the petition was unsuccessful.

How Advertising Affects Pharmacists

Many pharmacists would prefer not to carry products which they feel are useless. But they feel forced to do so by consumer demand which has resulted from advertising.

Pharmacists are professionally trained in the science of drug chemistry and drug use. Their state and national organizations place great value on continuing education. Their journals contain reliable scientific information and their schools offer courses to help practitioners keep up-to-date. But pharmacists are *also* subject to the influence of advertising by patent

drug manufacturers. Often these ads are profit-oriented and contain little or no scientific information. For example, one manufacturer suggests its skin creams because they are "best sellers." Another suggests stocking its antacids, laxatives and cold tablets because they are "traffic builders." Another recommends its cough medications "to get the jump on winter." Whether these products are of any value in treating the conditions for which customers use them seems not to be the point.

The typical pharmacist wears a white coat and is regarded by his customers as an authority on patent medicines. He may be very helpful when customers ask him about the large selection of patent medicines he sells. It is important to realize, however, that pharmacists do not necessarily endorse every product they sell.

Wise use of non-prescription drugs would be greatly facilitated if the law required that educational pamphlets and/or package inserts be available wherever the drugs are sold. The information would have to come from a consumer body that is independent of the pharmaceutical industry. The same commission could judge the accuracy of advertising claims as well.

The Trouble with "Tonics"

Pharmacists are not the only health professionals whose actions affect the sale of questionable patent remedies. Physicians also play a role. Many people wish that somehow a medicine could fortify them against the hardships of life. Drug advertisers exploit this hope by suggesting that their "tonics" can supply energy and fight "that tired, run-down feeling." But medical doctors also promote such concepts when they prescribe placebos for fatigue. Most of the tired feelings for which patients seek relief are caused by emotional tension. Far too often, doctors do not take the time to find out what is troubling their patients (or to refer them to others who will). Instead, by using vitamins, tonics, or other substances as placebos, these doctors reinforce the myths of the tonicmakers.

The so-called "tonics" are flavored mixtures of vitamins and minerals to which proteins are sometimes added. Aside from the few calories which they may contain, there is nothing in them which can give you "extra energy." They contain no nutrients which are not readily available from a balanced variety of foods. More than one hundred of the tonics now sold, however, are not merely a waste of money; the ones which contain iron can be quite dangerous if misused.

Iron is a mineral which is needed to make hemoglobin, the substance in red blood cells which carries oxygen to your tissues. Iron deficiency

anemia is found in certain segments of our population. It occurs most commonly in children under five years of age, women who menstruate heavily, pregnant women, and people whose diets are restricted for economic or other reasons.

The only sensible reason to use an iron supplement is iron deficiency anemia. However, it is not sensible to manage this condition without medical supervision. To establish the diagnosis, a blood count is needed—and before treatment is started, it is important to look for the underlying cause. If the anemia is caused by heavy menstrual periods, the doctor might either prescribe an iron supplement or try to reduce the bleeding. If faulty diet is the problem, nutritional counseling will be in order. If the anemia is caused by internal bleeding from an ulcer or a developing cancer, however, curing the anemia without making the diagnosis might mask the more serious problem until it is too late.

Some people who use iron-containing tonics experience mild stomach irritation. But these tonics pose another more serious potential danger. Children who ingest iron tonics—thinking they are some sort of tasty drink—can undergo serious poisoning and even death.

Although it is true that iron deficiency anemia can make people tire easily, very few people who suffer from fatigue have this condition. For many years, promoters of iron-vitamin tonics have been getting away with claims that their products are appropriate for the treatment of fatigue. But in 1976, the U.S. Federal Trade Commission succeeded in having the manufacturer of *Geritol* and *FemIron* pay a high penalty for misleading advertising.

Aspirin is Aspirin

Misleading sales tactics are not only used to promote products with ineffective ingredients; they are also used to sell products which contain effective ones. Aspirin is the prime example. In plain form, it is an excellent drug to combat fever and relieve aches, pains and malaise (general poor feeling). More than 100 products which contain aspirin as their principal effective ingredient are being marketed. To convince people to buy their particular product—*which invariably costs more than plain aspirin*—manufacturers add other ingredients, vary the aspirin content and make a variety of misleading suggestions.

Anacin, for example, is said to be "like a doctor's prescription" because it contains more than one ingredient. An Anacin tablet contains about six grains of aspirin plus the amount of caffeine found in one-quarter cup of brewed coffee. The adult dose of aspirin is ten grains. The dose for children up to ten years is one grain per year of age. Yet *Anacin* calls itself "the adult strength pain reliever."

Excedrin ads state that "in two major research studies on pain, at a major hospital and an important university medical center, doctors reported that *Excedrin* worked significantly better than regular aspirin tablets." This advertisement implies that *Excedrin* is widely recognized by the medical community as being more effective than plain aspirin. The facts are otherwise:

Two *Excedrin* tablets will give you six grains of aspirin, four grains of salicylamide (which is less effective than aspirin), three grains of the aspirin substitute, acetaminophen (which is not advantageous to combine with aspirin), and the amount of caffeine found in one cup of coffee. Hardly an "extra-strength pain reliever"—as its ads also suggest. In July 1974, *The Medical Letter* (the respected publication which advises doctors) made this comment: "Combinations of aspirin with other analgesics [pain relievers], such as *Excedrin*, have never been proven more effective than the aspirin alone, and they may cause a higher incidence of adverse effects."

Buffered aspirins, such as *Bufferin*, are supposed to prevent stomach distress by decreasing stomach acidity. But the amount of antacid they contain is quite small. A glass of water is probably just as effective as a buffer. *Bufferin's* claimed ability to dissolve twice as fast as aspirin is also of doubtful significance. *Arthritis Pain Formula* and *Arthritis Strength Bufferin* contain 7½ grains of aspirin. This tablet strength has no significant advantage over that of the ordinary five-grain aspirin tablet, but is more expensive. *Instantine* is no more instant than any other brand of aspirin. And so on.

Asthma Remedies

Generally, non-prescription drugs are milder and less toxic than prescription drugs. However, an exception exists in the case of asthma remedies which contain epinephrine (e.g., *Primatine Mist, Bronkaid Mist, Asthma Nephrin*) and ephedrine (*Primatine Tablets, Phedral Tablets, Bronkaid Tablets.*) Epinephrine is short-acting, can require increasingly larger doses to be effective, and can result in rebound spasm of the air passageways. Its use by doctors is restricted to emergency injections for the relief of acute asthmatic attacks—which are hardly suitable for selftreatment. Ephedrine lasts longer, but does not begin to act as quickly as epinephrine. Both drugs can cause heart rhythm changes, elevation of blood pressure, and stomach irritation. Although these drugs were once common in prescription asthma medications, they have been replaced

almost completely by drugs that are safer and more effective. Therefore, as a general rule, non-prescription asthma remedies should be avoided.

Government Action

Something is clearly wrong with the patent drug marketplace—both with the advertising and with the products themselves. Instead of educating consumers, most advertising is designed to mislead them. Some patent remedies contain no effective ingredients, many contain ineffective amounts of ingredients, and some can even be dangerous when used as directed. Federal agencies have become increasingly concerned about these problems in recent years. As a result, scientific panels to judge the safety and efficacy of OTC (non-prescription) medicines were appointed by the FDA in the United States and the Health Protection Branch in Canada.

The FDA review actually began in the mid-1960's under a contract with the National Academy of Sciences/National Research Council. The NAS study included about 500 non-prescription drug products representing almost every OTC therapeutic category. More than 300 of the products were found to be ineffective for one or more of their intended uses. These findings were a clear signal that the FDA should review the entire OTC market—an estimated 300,000 drugs containing about 500 active ingredients.

For purposes of the review, OTC products were then classified into 92 categories and in 1972, seventeen expert advisory panels were appointed by the FDA. Each panel is composed of seven voting members, including at least one toxicologist, one pharmacist and physicians from appropriate specialties. The panels base their judgments primarily on data submitted by interested parties, including drug companies, health professionals and other concerned citizens. Ingredients being reviewed are classified into one of three categories: I) safe and effective; II) definitely unsafe or ineffective; or III) in need of further study.

The review process is expected to last into the mid-1980's. As reports are issued, however, manufacturers are reformulating many of their products (which are then marketed as "new and improved").

As a result of FDA actions, non-prescription sleep-aid drugs have undergone particularly drastic changes and so-called "daytime sedatives" have been banned. The FDA panel, which issued its report in 1975, evaluated 23 ingredients found in these products. Vitamins and passion flower extract were noted to serve no rational purpose. Aspirin and related ingredients were judged ineffective for sedation. Other ingredients, including bromides and scopolamine, were judged unsafe because their

effective dose differs little from their toxic dose. Certain antihistamines were recommended for further study to determine whether they can be used safely in effective dosage as non-prescription drugs.

In the wake of these findings, most OTC sleep-aids were reformulated to include an antihistamine (usually methapyrilene) as their sole or principal ingredient. In 1979, methapyrilene was recalled because animal tests suggested that it might cause cancer in humans. Pyrilamine has been substituted, but it is also under suspicion.

Antihistamines are used mainly to treat allergic symptoms. They can produce drowsiness as a side effect, but they can also produce constipation and dry mouth. Many people who use sleep aids do not realize that they contain antihistamines. Nor do they realize that most people who have difficulty sleeping can be helped with proper medical attention.

The FDA expert panel also criticized advertising for non-prescription daytime sedatives and recommended an end to claims that such products help "nervous irritability" or "simple nervousness due to common everyday overwork and fatigue." Since there is no evidence that the drowsiness produced by antihistamines helps to relieve anxiety, and since drowsiness is not a desirable side effect during the day when people need to be alert, the FDA prohibited the marketing of OTC "daytime sedatives" as of December 25, 1979.

In 1976, the U.S. Federal Trade Commission proposed a rule which could eventually be used to stop advertising claims which are unsupported by scientific evidence. Under this rule, claims which the FDA will not allow on labels will no longer be permitted in advertising either. Although the FDA review and the new FTC rule look promising, it is by no means certain that they will reach a successful conclusion. The patent drug industry is unlikely to give up any profitable sales tactics without a struggle.

Protecting Yourself

If you use non-prescription medicines, you owe it to yourself to do so in a scientific and responsible manner. Take the time to inform yourself. This is best done at home or in a library where you can do the proper research. Design your ideal medicine chest before you need to use it. Don't buy on impulse when you are too sick to feel like investigating. Above all, don't rely upon advertising claims. Before you buy a product, read its label and ask yourself the following questions:

1. What are its ingredients and what do they do? The PDR for Non-Prescription Drugs contains manufacturers' information on 1,450 OTC drugs, including side effects, interactions, dosages and precautions. It

can be purchased for \$12.25 from Physician's Desk Reference, Box 500, Oradell, NJ 07649.

2. Are they safe for me? Surprisingly few people discuss OTC medications with their doctors. You should do so and record what you learn in a special notebook.

3. Has their effectiveness been proven by scientific tests? A good way to keep current is by reading the *FDA Consumer*. A one-year subscription may be ordered for \$12.00 from Consumer Information, Pueblo, CO 81009.

4. Is this medication the most economical way to solve my problem? For example, to relieve the itch of an insect bite or a mild case of poison ivy, there are about 30 products which are no more effective than ordinary calamine lotion, but cost more.

5. Do I really need a drug product or should I just let nature take its course? *The Medicine Show*, published by Consumers Union, contains practical advice about many everyday health problems. It is available for \$5.50 from Dept. MS80, Consumer Reports Books, P. O. Box 350, Orangeburg, NY 10962.

6. Might using an OTC product cause me to overlook a condition for which I should see a doctor?

7. If my symptoms persist, how long should I wait before seeing a doctor?

If you have an illness, make sure that the patent medicine will not harm your particular condition or interact adversely with any other medication your doctor has prescribed.

Don't take patent medicines unnecessarily. Many advertisers suggest remedies for conditions which do not even exist. If patent medicines are a regular part of your life, you are probably abusing them (or vice versa). This is particularly likely if they are antacids, laxatives or tonics.

Despite the questionable nature of many of its products, the patent medicine industry is booming. Its customers are spending billions of dollars a year. To keep them buying, the drug industry is spending hundreds of millions of dollars on television advertising alone. But remember, the man on the TV screen is not your doctor—or anyone else's. He doesn't know the real cause of your backache, your headache, your upset stomach or your fever. He doesn't know why you are tired. And very likely, he doesn't care.

The Confused Crusaders

They are everywhere.

BY GILDA KNIGHT Executive Officer American Society for Clinical Nutrition

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The Confused Crusaders

To believers, they are prophets. To skeptics, they are profiteers. They crowd the bookshelves, dominate the media and even form their own "scientific" organizations. They are everywhere: Adelle Davis' books, Rodale's magazines, Shute's vitamin E claims, Cheraskin's new hope for incurable diseases, the books and TV appearances of Carlton Fredericks and Lendon Smith. And who hasn't heard about Linus Pauling?

The High Priestess

Adelle Davis used to say that she never saw anyone get cancer who drank a quart of milk daily, as she did. She died of cancer in 1974, leaving behind her a trail of ten million books sold and a large and devoted public following.

Ms. Davis promoted hundreds of nutritional tid-bits and theories, many of which were unfounded. She stated incorrectly that fertile eggs were better than infertile eggs, and that crib deaths could be prevented by breast feeding plus vitamin E. Most of her ideas were harmless unless carried to extremes, but some were very dangerous. She opposed pasteurization of milk. She suggested magnesium as a treatment for epilepsy. And she recommended dangerously high doses of vitamins A and D.

In 1971, a four-year old victim of Adelle Davis' advice was hospitalized at the University of California Medical Center in San Francisco. The child appeared pale and chronically ill. She had been having diarrhea, vomiting, fever and loss of hair. Her liver and spleen were enlarged and other physical signs suggested she had a brain tumor. Her mother, "a food faddist who read Adelle Davis religiously," had been giving her large doses of vitamins A and D plus calcium lactate. Fortunately, when these supplements were stopped, the little girl's condition improved.

Little Eliza Young was not so fortunate. During her first year of life she was given "generous amounts" of vitamin A as recommended in *Let's Have Healthy Children*. As a result, according to the suit filed in 1971 against Adelle Davis and her publisher, Eliza's growth was permanently stunted. The estate of Ms. Davis settled in 1976 for \$150,000. Two-month-old Ryan Pitzer was even less fortunate. According to the suit filed by his parents, Ryan was killed in 1978 by the administration of potassium chloride for colic as suggested in the same book. The county medical examiner who verified the cause of death recommended that the book be recalled by its publisher.

Adelle Davis was the first "health authority" among modern food faddists who possessed any formal professional background. She was trained in dietetics and nutrition at the University of California at Berkeley, and got an M.S. degree in biochemistry from the University of Southern California in 1938. Many of her former classmates and teachers have affectionate memories of her past promise and were greatly distressed about her subsequent activities. Her books, which are full of inaccuracies, are not on the approved list of any bona fide nutrition society.

Let's Eat Right To Keep Fit was Ms. Davis' most popular book. Professor George Mann of Vanderbilt University School of Medicine undertook the fatiguing task of documenting the book's errors and found an average of one mistake per page. Some of the errors are dangerous. The suggestion that certain patients with kidney disease should take potassium chloride is one which could prove fatal.

In Let's Get Well, Ms. Davis listed 2,402 references to "document" its 34 chapters. Readers may well be impressed with this enormous list, but investigators have found that the references often do not back up what she says in the book. For example, 27 out of 57 references listed in Chapter 12 contain no data to support Ms. Davis' statements. A reference given in her discussion of "lip problems" and vitamins turns out to be an article about influenza, apoplexy and aviation, with mention of neither lips nor vitamins.

In April, 1972, a group of distinguished nutritionists had the opportunity to ask Adelle Davis what scientific evidence backed up many of her theories. Like most food faddists, she did not base her ideas on such evidence. To question after question she answered, "I will accept your criticism," "I could be wrong," or "I'm not saying it always does." But she never modified what she told her followers.

The Consultant

In contrast to Adelle Davis, Carlton Fredericks has had virtually no nutrition or health science training. He graduated from the University of Alabama in 1931 with a major in English and a minor in political science. His only science courses were two hours of physiology and eight hours of elementary chemistry. He had various jobs until 1937 when he began to write advertising copy for the U.S. Vitamin Corporation and to give sales talks, adopting the title of "nutrition educator."

Records of the City Magistrates' Court of New York show that Fredericks began diagnosing patients and prescribing vitamins for their illnesses. After investigation by agents of the New York State Department of Education, Fredericks was charged with practicing medicine without a license. In April 1945, after pleading guilty, he paid a fine of \$500. Fredericks received his Ph.D. in 1955 without having taken a single course in nutrition. His thesis topic was A Study of the Responses of a Group of Adult Female Listeners to a Series of Educational Radio Programs. His own radio programs.

The Recommended Dietary Allowance of vitamin A is 5,000 international units. Fredericks has advocated daily use of up to 100,000 units for acne and 150,000 to 200,000 for bronchial asthma. Not only are such doses of this vitamin expensive, but they are toxic as well and can cause severe nervous system damage.

Fredericks is one of the originators of the crusade to discredit sugar. He has deftly channeled this single theme into a number of variations which reflect and exploit current public concerns about alcoholism, mental disorders and hypoglycemia (low blood sugar). When introduced on the Merv Griffin show as a "leading nutritional consultant," Fredericks was asked to estimate the number of Americans suffering from hypoglycemia. His reply was "20 million." This grossly absurd statement has no basis in fact. Hypoglycemia is very rare. A few years ago, each of the pastpresidents of the American Diabetes Association was asked to estimate how many patients he has seen with disorders of blood sugar. All replies were similar: thousands of patients with diabetes (high blood sugar), but *almost none* with functional hypoglycemia.

Fredéricks' books sell at handsome royalties. All of them attack the medical profession, cite undocumented evidence, and attribute therapeutic qualities to certain foods or vitamin supplements. His recent book on a nutritional approach to breast cancer appeals to the public's hope for simple, magical answers and links cancer to the eating of sweets and pizza.

Fredericks is a founding fellow of the International College of Applied Nutrition, a member of the International Academy of Metabology, a member of the Academy of Orthomolecular Psychiatry and a pastpresident of the International Academy of Preventive Medicine. The latter group distributes more than 15,000 copies of its membership directory each year to individuals "seeking health care from professionals who practice a preventive and holistic philosophy." But Fredericks is not a member of any nutrition organizations whose membership requirements include professional expertise.

Carlton Fredericks is a persuasive man with a charming manner. He uses humor to illustrate his points and to ridicule those with whom he disagrees. He encourages self-diagnosis and self-treatment with his scare techniques.

The Confused Crusaders

The Chemist

Throughout his most widely known book, *Vitamin C and the Common Cold*, Linus Pauling is convinced that large doses of vitamin C can prevent colds and decrease their severity. Pauling states that daily intake of 200 milligrams (mg.) will decrease the incidence of colds by about 15% and that daily intake of 1,000 mg. will decrease colds by 45%. (The Recommended Dietary Allowance of vitamin C is 60 mg.) Pauling bases his beliefs upon his readings of experiments done by others plus his own personal experience. Looking at the same data, however, the majority of nutrition experts take issue with him.

Scientific fact is established when the same experiment is carried out over and over with the same results. To test the effect of vitamin C on colds, it is necessary to compare groups which get the vitamin to similar groups which get a placebo (a dummy pill which looks like the real thing). Since the common cold is a very variable illness, proper tests must involve hundreds of people for significantly long periods of time.

In 1972, Dr. Terence W. Anderson of the University of Toronto School of Hygiene published the results of a study designed to test Pauling's ideas. The incidence of colds was not significantly reduced, although the group which took the vitamin spent 30 percent fewer days at home because of illness. Dr. Anderson conducted two more experiments in which volunteers took various dosages. Again, vitamin C did not appear to prevent colds or significantly reduce the length of illness. It did appear to reduce the severity of the symptoms, but this can be accomplished with dosages considerably less than those advocated by Pauling.

Largely because of the stature of Linus Pauling, test after test has been carried out to determine whether vitamin C is of practical value in the treatment of the common cold. After considering the evidence, most medical scientists conclude that large doses of vitamin C do not prevent colds or shorten their duration. Vitamin C may have a small (anti-histamine-like) effect upon the severity of cold symptoms, but large doses may lead to kidney stone formation and other medical problems (see Chapter 5).

Pauling has also been recommending massive doses of vitamins for the treatment of severe mental illness. The vast majority of psychiatrists and nutritionists do not support this idea; and an American Psychiatric Association task force which reviewed the evidence a few years ago found it entirely lacking in credibility. Recently, Pauling has been advocating megadoses of vitamin C for the prevention and treatment of cancer. In an interview in the July 1979 issue of *Prevention*, he estimates that "the

incidence and mortality from cancer could be decreased by 75 percent by the proper use of vitamin C alone."

The Linus Pauling Institute of Medicine, founded in 1973, is dedicated to "orthomolecular medicine." This is based on the theory that varying the concentrations of substances normally present in the human body such as vitamins—may improve health and help to prevent or treat various diseases. Again, Pauling's prestige is helping to elevate megavitamins from mere flimflam into a controversial issue.

The relationships between Pauling and other promoters of vitamins may be noteworthy. In a little-publicized chapter of Vitamin C and the Common Cold, Pauling attacks the health food industry for misleading its customers. Pointing out that "synthetic" vitamin C is identical with "natural" vitamin C, he warns that the higher priced "natural" products are a "waste of money." And he adds that "The words 'organically grown' are essentially meaningless—just part of the jargon used by health food promoters in making their excess profits, often from elderly people with low incomes."

Despite these criticisms, Pauling was welcomed with open arms by the health food industry and participated in its campaign to undermine FDA protection of consumers against misleading nutrition claims (Chapter 19). Many of his Institute's individual donors have been solicited with the help of Rodale Press and related organizations which publicized the Institute and allowed the use of their mailing lists. Curiously, *Vitamin C, the Common Cold and the Flu*, published in 1976, contains no criticisms of the health food industry, its "jargon" or its "excess profits."

Pauling's megavitamin views may not have been accepted by the scientific community, but they have been accepted by a large segment of the public. After all, he's a distinguished Nobel Prize winner. And that's good enough for John Q. Public, who does not have the scientific background to evaluate Pauling's claims.

The Dentist

Like Linus Pauling, Emanuel Cheraskin is a professional who is trained in one area but speaks out frequently in another. A dentist, he has been promoting a wide variety of questionable nutrition ideas in papers for professionals and books for the general public. He and Carlton Fredericks also speak frequently at nutrition seminars for chiropractors.

In New Hope for Incurable Diseases, Dr. Cheraskin and his co-author W. M. Ringsdorf, Jr., another dentist, make many wild claims. Thiamin in 2 mg. doses will increase intelligence up to five times. Vitamin C will

improve the behavior of schizophrenics. Carrot and lettuce juice make the hair shine. Liver juice helps diabetics, and spinach juice gives an extra boost of energy. The book makes recommendations which can be cruelly disappointing, if not actually dangerous. It advocates treatment of glaucoma with vitamin C and promises recovery of 75 percent of schizophrenics treated with long-term megavitamin therapy. Even harmless advice may be given for a senseless reason. For example: "Eat fresh fruits and vegetables to slow down aging."

In *Psychodietetics*, a later book by Cheraskin, Ringsdorf, and Arline Brecher, the authors maintain that "deteriorating eating habits share a major responsibility" in the rise of violence in our population today. Many of the "documented" statements in this book would not withstand scientific scrutiny. References from questionable sources are quoted alongside those recognized as reliable by the scientific community. An example of what the authors consider to be an important scientific study is that of a biochemist who was attempting to evaluate a children's cereal from a nutrition standpoint. He emulsified both the box and the cereal individually, and then fed *one* white rat the box emulsion and another the cereal. Though experiments in rats do not necessarily apply to humans, the authors find it significant that the rat who ate the box thrived!

The Clinicians

So far we have looked at the theories of people which are based on their review of other people's work. The Shute brothers, however, are physicians in the business of treating patients and publishing their findings. Their primary interest is in vitamin E.

Since vitamin E was synthesized in 1938, physicians as well as laymen have tried using it for many different ailments. In 1946, worldwide interest was aroused by a report from Drs. Evan Shute (an obstetrician and gynecologist), Wilfred Shute (a heart specialist), and Albert Vogelsang. The three doctors claimed that large doses of vitamin E were beneficial in the four major types of heart disease. But these claims could not be confirmed by other groups throughout the world.

In his book, *The Heart and Vitamin E and Related Matters*, Evan Shute recommends vitamin E for the prevention and treatment of high blood pressure, gangrene, nephritis, angina pectoris, varicose veins and other conditions. He also claims it can heal wounds without scars and can prevent senility and stroke if taken daily from an early age.

Evan Shute is Medical Director of the Shute Institute in London, Ontario, which in turn is managed by the Shute Foundation for Medical Research. The Institute is supported by fees and gifts for which the Foundation can issue a tax exempt receipt. In 1949, the Institute began publication of *The Summary*, its "scientific journal." The prime reason for publication of *The Summary*, admits Evan Shute, "was the inability of the Shute Foundation to get its presentations published in North American medical journals." Now that should tell us something! Reputable scientific journals accept only papers in which warranted conclusions are drawn from well-designed experiments—such as those which compare treated and untreated groups. Evan Shute's ideas are *not* based on such studies. In fact, he regards them as "unethical, immoral and illegal!"

Some people believe that vitamin E can turn young and old into bedroom superstars. This myth is based on *animal* experiments in which the vitamin was helpful in treating infertility. But no parallel value has been found in human experiments.

Vitamin E has been described as a vitamin in search of a disease to cure. Its main role today is that of a money maker for vitamin merchants. Some day, perhaps, a better use for vitamin E will be discovered.

The Children's Doctor

Lendon H. Smith, M.D., is a pediatrician who claims that allergies, alcoholism, insomnia, hyperactivity in children, and a variety of other ailments are the result of enzyme disturbances which can be helped by dietary changes. He recommends a variety of food supplements and an avoidance of white sugar, white flour, pasteurized milk, and other foods that are not "natural." His books include *Feed Your Kids Right* and *Improve Your Child's Behavior Chemistry*.

According to an executive of the Phil Donahue TV show, "Unlike other M.D.'s, he presents well on the air and has a special rapport with parents. He's funny, interesting and makes people feel good about themselves and their children."

In *Feed Your Kids Right*, Smith suggests that a daily dose of 15,000 to 30,000 units of vitamin A is "about right for most of us." He also recommends a "stress formula" which includes up to 10,000 mg of vitamin C and 50,000 units of vitamin A each day for a month. These dosages, of course, can be dangerous—particularly to children.

In Improving Your Child's Behavior Chemistry, Smith tells how "It is amazing how children's behavior can be turned around 180 degrees by a vitamin C and B injection. Overnight, they sleep better, begin to eat, and are cheerful, calm, and cooperative the next day." [Editor's note: Maybe they don't want any more shots!]

In 1973, the Oregon State Board of Medical Examiners ordered Smith to surrender his narcotics license and order forms and placed him on probation for ten years. The order, dated October 18, 1973, indicates that during the previous year, Smith had prescribed medication that was "not necessary or medically indicated" for six patients, one diagnosed as hyperactive and the other five as heroin addicts.

The Salesmen

"Man has been a creature of fallacy ever since time began. It seems to be inherent in his make-up to believe in false things . . . In the field of medicine, especially, man seems to delight in being completely taken in." J. I. Rodale, who wrote this in 1954, seemed to understand how gullible people can be. He died in 1971, leaving a publishing empire to his son Robert.

Rodale was a shrewd businessman. His financial success attracted considerable attention in the early 1970s, and the publicity he received boosted his profits even more. By 1979, Rodale Press had a reported gross income of \$51 million per year. *Prevention*, its major magazine, had a circulation exceeding two million and the circulation of *Organic Gardening and Farming*, its number two publication, was over one million.

J. I. Rodale was best known for his interests in "organic farming" and "health foods." Most media accounts of his work regarded him as eccentric, but harmless. A few brief mentions of the unscientific nature of his health concepts appeared in AMA publications, but for the most part he was ignored by medical scientists. In a way, that was unfortunate, because he did a great deal of harm.

Prevention magazine contains easy-to-read articles on a variety of health topics. A few articles contain practical health tips, but most articles are misleading. *Prevention's* overall message is that everyone should supplement his diet with extra nutrients. To support this point of view, the magazine uses most of the sales tactics described by Dr. Herbert in Chapter 5. Articles and editorials give equal weight to valid and invalid research, good and poor reasoning, scientific fact and health nonsense. Readers are told that our food supply is depleted of nourishment. News of nutritional "discoveries" is slanted to suggest that readers who take food supplements are likely to benefit from discoveries which are just around the corner.

A typical issue of *Prevention* carries 60–80 pages of food supplement advertising which costs about \$12,000 per page. It is official policy to accept no ads for "remedies and cures," and with rare exception, the ads make no health claims at all. The reason for these policies is obvious. If claims of the type found in the articles and editorials surrounding the ads were placed *in* the ads, sellers could be prosecuted for fraud or misbranding. False claims in the magazine's text, however, are shielded by freedom of the press.*

In England, where the law is not as strict, J. I. Rodale, Ltd., markets Natrodale brand food supplements with false claims. Among them: "Eating bone meal will prevent insect bites, will almost completely stop cavities and will lower the pulse when it is high," and "Desiccated liver enormously increases energy." The English edition of Prevention is smaller than the American version and contains no date of publication. New issues are not distributed until the previous ones are sold. According to a Rodale Press official, the market for health magazines and food supplements is less profitable in England: "People there have less money to waste than they do in America."

Rodale's ideas are summarized into the "Prevention System for Better Health," a mixture of sense and nonsense. Its sensible ideas include avoiding smoking and coffee, and getting proper exercise and nutrition. What is in error, however, is its recommendation of large amounts of supplementary nutrients which are a waste of money. *Prevention's* warnings against sugar, white bread, roast beef, pickles, ice cream, bagels and many other common foods are silly, but relatively harmless. Sugar is accused of "causing criminals," and bread is blamed for colds, rickets in children, steatorrhea in adults, stomach irritation, bronchitis, pneumonia and conjunctivitis. And so on.

Some people who laugh at Rodale Press's silliness may think of its overall set-up as harmless. After all, they say, Rodale does encourage people to do things which may improve their health. But nutritional scientists who look closely at Rodale Press are not amused. Its publications are a significant factor in the growing public confusion about nutrition. And its political activities can cause a great deal of harm.

Although water fluoridation is an extremely valuable way to prevent tooth decay, Rodale opposition to water fluoridation has been very vigorous. Before the death of J. I. Rodale, most issues of *Prevention* contained antifluoridation articles, editorials or letters-to-the-editor. It seems likely that over the years, many rural Americans have become needlessly frightened about fluoridation as a direct result of Rodale misinformation. Communities around Rodale's headquarters in Emmaus, Pa., have been

^{*} Editor's note: Most magazines which promote food supplements have a similar structure. *Bestways* (circ. 130,000), *Let's Live* (circ. 140,000) and *The Health Quarterly* (circ. 212,000) are sold primarily by subscription. *Better Nutrition* (circ. 475,000) and *Today's Living* (circ. 400,000) are distributed primarily by health food stores. *The Body Forum* is unusual in that its publisher, Cosvetic Laboratories, is also the company whose vitamins are advertised in the magazine.

subject to a steady stream of antifluoridation propaganda. In 1961, for example, Rodale Press spent more than \$10,000 on a scare campaign which defeated a fluoridation referendum in nearby Allentown.

Rodale Press promotes bone meal tablets as a tooth decay preventive even though scientific authorities know that they are not effective. In 1971, the Lehigh Valley Committee Against Health Fraud published an interesting observation. Ads for bone meal tablets occupied more than \$50,000 worth of advertising space in *Prevention* during 1970. In addition, advertisements for filters which were claimed to remove fluorides occupied many additional thousands of dollars of space.

Scientists are also disturbed by Rodale's unfair criticism of pesticides and agricultural chemicals which are badly needed to prevent starvation in many parts of the world (see Chapter 18).

In late 1971, Robert Rodale began a syndicated newspaper column called *Organic Living* which promoted romantic ideas about "nature" with only an occasional hint that our diets are deficient. To promote use of the column, *Prevention* readers were urged to contact local newspaper editors. After a year, some forty newspapers were using Rodale's column, but editorial interest did not last. "Editors stopped using it," according to a source inside Rodale Press, so Rodale stopped writing it during 1975.

Since the death of J. I. Rodale in 1971, Rodale Press has been trying hard to improve its image. *Prevention* contains fewer of the more ridiculous types of ideas which J. I. used to publish. Its articles are more subtle, with less direct suggestion that vitamins will cause miraculous states of health. Readers are still encouraged to supplement their diets with nutrients, both as part of the Prevention System and by slanted articles. Antifluoridation articles are not being published, although occasional letters-to-the-editor from antifluoridation groups assist the groups to raise funds. Rodale Press has also been trying to increase its status by giving money to colleges. But frequent articles in *Prevention* have urged readers to ask their Congressmen to weaken the FDA's ability to protect consumers against misleading nutritional sales claims (see Chapter 19). Subtle or not, Rodale Press remains one of the nation's leading promoters of health misinformation.

A recent article in the Allentown *Call-Chronicle* revealed that Mark Bricklin, *Prevention*'s current executive editor, recognizes that fluoride prevents tooth decay. Asked why the magazine has not told this to its readers, Bricklin replied, "It would only confuse them."

This year, *Prevention* readers will spend an estimated \$400 million for vitamins, minerals and food supplements because they believe in Rodale's mythology. But the children who get toothaches or empty

bellies—as a result of Rodale's efforts against fluoridation and scientific agriculture—will not understand the source of their suffering.

Crusading Groups

Promoters of questionable health ideas often form organizations to multiply their effectiveness. New groups are being formed at an alarming rate. How can one tell which are reliable and which are not? There is no sure way, but here are five questions which can help you evaluate a group:

1. Are its ideas inside of the scientific mainstream? Some groups actually will tell you they were formed because their leaders were rejected by other scientists or couldn't get their findings published in established scientific journals. That is a classic sign of quackery.

2. Who are its leaders and advisors? The International Society for Fluoride Research sounds quite respectable, but it is actually an anti-fluoridation group. The International Academy of Preventive Medicine numbers among its leaders the likes of Carlton Fredericks, Linus Pauling and the Shutes. The Center for Science in the Public Interest, organizer of "Food Day," lists Benjamin Feingold and a Rodale Press editor among its advisors.

3. What are its membership requirements? Is scientific expertise required—or just a willingness to pay dues? An "open" organization may be perfectly respectable (like the American Association for the Advancement of Science), but don't let the fact that an individual belongs to it impress you.

4. Does it promote a specific treatment? Most such groups should be suspect. A century ago, valid new ideas were hard to evaluate and often were rejected by the medical community. But today, an effective new treatment is likely to be welcomed by scientific practitioners and not need a group to promote it. The Association for Chelation Therapy and various groups which promote unproven cancer remedies (see Chapter 9) fall into this category. So do the American Schizophrenia Association (which promotes megavitamins) and its parent organization, the Huxley Institute for Biosocial Research.

5. How is it financed? The Nutritional Research Foundation was funded by profits from Dr. Robert Linn's liquid-protein diet program. The Council for Responsible Nutrition, despite its high-sounding name, is a Washington, D.C., group which represents manufacturers and distributors of food supplements sold through health food stores. Don't assume, however, that funding by an industry makes an organization unreliable. The National Dairy Council, for example, is highly respected by nutritionists for its accurate publications on nutrition.

The Confused Crusaders

All of us are exposed daily to an array of ideas about health, some of which are accurate and some not. Confused crusaders are working hard to gain your allegiance. When you are well, what you believe may not matter much. But if you have a health problem, misplacing your trust can seriously harm you!

Recommended Reading

The Vitamin Conspiracy, by John J. Fried.

Diet Facts and Fads

Many promoters of dietary schemes would have us believe that a special substance or combination of foods will automatically result in weight reduction. But you can't fool Mother Nature. To lose weight, you must eat less, or exercise more, or do both.

BY

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc. When George L. Blackburn, M.D., Ph.D., reported his research in the early 1970's, he was worried that it might be commercially exploited. Dr. Blackburn, who is Associate Professor of Surgery and Chief of the Nutrition/Metabolic Laboratory at Harvard Medical School, had developed a dietary program to help people who are markedly overweight. The diet, known as the "protein-sparing modified fast," was potentially quite dangerous. It was intended for use only under close medical supervision.

Blackburn's fear was realized in mid-1976 with publication of *The Last Chance Diet*, by Robert Linn, D.O., and Sandra Lee Stuart. Typical of "medical breakthrough" books, it contained glowing testimonials (including the author's personal story of weight loss after all other methods had failed), a list of do's and don'ts, and an admonition to proceed under medical supervision. Public interest was as great as it had been in the Atkins diet, introduced four years previously. But something was amiss. Dr. Blackburn's program used high-quality protein foods. Dr. Linn's book recommended a "predigested liquid protein formula" which, it turned out, was a *low*-quality mixture of amino acids made from cattle hides and tendons.

The "secret" of Linn's formula was revealed in an abstract publication of *The Last Chance Diet* in the October 1976 issue of *Family Circle* magazine. Despite warnings from health professionals, liquid and powdered protein preparations soon flooded the market—for "do-it-yourself" use. The momentum of acceptance continued for another year until the Center for Disease Control and the FDA announced that 11 deaths were associated with the use of liquid protein. Within a short time, the number of reported deaths soared to over 50. Not all were confirmed as definitely caused by the liquid protein regimen, but the publicity tolled the end of the fad.

Year after year, "new" diet books are published amid claims of "quick, safe and painless weight reduction—without hunger." Newspapers and magazines abound with ads for diet plans, reducing pills, and gadgets for slimming of selected body parts. Weight-loss clinics are everywhere. With all this hoopla, you might think that Americans are getting thinner, but such is not the case. Most age groups weigh more now then they did 15 years ago.

Health and insurance statistics show clearly the penalties of being 20 percent or more overweight. The most serious problem associated with obesity is high blood pressure. There is also considerably increased risk of sickness and death from diabetes, liver, kidney, heart and blood vessel diseases, and other problems.

Many promoters of dietary schemes would have us believe that a spe-

Diet Facts and Fads

cial substance or combination of foods will automatically result in weight reduction. But you can't fool Mother Nature! To lose weight, you must eat less, or exercise more, or do both. There are 3,500 calories in a pound of stored fat. To lose one pound a week, you must eat an average of 500 fewer calories per day than you metabolize. Most fad diets, if followed closely, will result in weight loss—as a result of caloric restriction. But they are invariably too monotonous and are often too dangerous for longterm use.

Fasting

The most drastic way to reduce caloric intake is to stop eating completely. Indeed, fasting has been used for weight reduction since ancient times. Fasting can produce a dramatic loss of weight, particularly in its early stages. Losses will be greatest in heaviest subjects and least in those who are the lightest. Loss of body water is partially responsible for the dramatic weight loss during the initial stages of fasting. In the short run, this may trick some dieters into thinking that they have found a magical way to lose weight. In the long run, however, losing water is not the same as losing true body fat. Body water will be restored quickly when eating is resumed.

Prolonged fasting will throw the body into a state of ketosis. Under ordinary circumstances, the preferred fuel for every tissue is the simple sugar, glucose. Glucose can be obtained easily from carbohydrates, less easily from proteins, but not at all from fats. After a few days of total fasting, body fats and proteins are metabolized to produce energy. The fats are broken down into fatty acids which can be used as fuel. In the absence of adequate carbohydrate, the fatty acids may be incompletely metabolized, yielding ketone bodies and thus ketosis. But proteins must also be broken down to produce glucose. In ketosis, these are taken from lean body mass—muscles and major organs such as the heart and kidneys. A prolonged fast may also lead to anemia, impairment of liver function, kidney stones, postural hypotension, mineral imbalances, and other undesirable side effects. Prolonged fasting clearly requires careful medical supervision which cannot be provided from the pages of a book or magazine article.

Fasting: The Ultimate Diet, by Allan Cott, M.D., is a popular book that was published in 1975. Although the book advises readers to consult a physician before starting even a brief fast, it also tells them to "turn a cool ear to the warnings and dire predictions" of fearful friends.

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Supplemented Fasting

Although most body tissues can adapt to using ketone bodies for fuel, the brain requires at least 20 percent of its fuel in the form of glucose. This must be supplied from somewhere—dietary carbohydrates, dietary proteins or your own tissues. It might seem that the simplest way to prevent loss of protein from vital tissues during a fast would be to give just enough food to supply the central nervous system with its daily glucose requirement and thus "spare" the protein in the body. But researchers have found that carbohydrate is unsuitable for this purpose. Even a small amount will stimulate insulin secretion which leads to hunger attacks that are not present when the body is running on ketone bodies. Dietary protein works better because it breaks down more slowly to glucose without triggering an insulin response.

It was this rationale that inspired Dr. Blackburn and his colleagues to provide fasting patients with a small amount of high-quality protein to stop loss of body tissue—the so-called "protein-sparing modified fast." In addition, however, patients were given noncaloric liquids, vitamins, minerals (including potassium and calcium), and sometimes glucose. Patients were initially hospitalized for a week of evaluation and then followed closely as outpatients. Their diets were carefully calculated by weight. The program emphasized not only diet but also an overall approach that included exercise, instruction in nutrition, and counseling in behavior modification. The diet was never intended for unsupervised use—and the liquid protein recommended (and manufactured) by Dr. Linn was not part of Dr. Blackburn's program.

Low Carbohydrate Diets

Weight reduction diets can be divided into two broad groups, those which restrict calories *per se*, and those which restrict intake of one or more of the macronutrients (carbohydrates, proteins and fats) that are the main sources of calories. Carbohydrates in particular have been singled out as villains in the battle of the bulge for more than a century, especially during the past two decades. Examples of low carbohydrate diets are the Air Force Diet, the Calories Don't Count Diet, the Drinking Man's Diet, the Mayo Clinic Diet (which, by the way, has no connection with the Mayo Clinic), the Doctor's Quick Weight Loss Diet, Dr. Atkins' Diet Revolution and, more recently, Dr. Atkins' Super Energy Diet. These diets have been extremely popular and many people have actually lost weight on them, but not necessarily for the reasons suggested by their promoters. Most low carbohydrate diets do not limit the intake of proteins, fats or total calories. Promoters claim that unbalancing the diet will lead to increased metabolism of unwanted fat whether or not calories are restricted. What actually happens, however, is that obese individuals who drastically reduce their carbohydrate intake are apparently unable to make up the ensuing deficit by increasing their intake of protein and fat. It is very difficult to unbalance a diet to this extent and consume the same calories as before. Weight loss on such diets must be attributed principally to the consumption of fewer calories—as a result of the restrictive diet's monotony—rather than any alteration of one's metabolic response to the contents of the diet.

A diet that is low in both carbohydrates and calories will produce ketosis. As with fasting, hunger may be suppressed and weight loss may be rapid during the first few weeks (due primarily to water loss). Medical complications are similar to those of the fasting state.

The highly popular Scarsdale Medical Diet (SMD) is a carefully designed regimen that itemizes foods for every day of the week and permits no substitutes. According to its authors, it is a high-protein (43%), low-fat (22.5%), low-carbohydrate (34.5%) diet that provides a combination of foods that "increases the fat-burning process." Although "permitted" foods may be eaten in unlimited quantities, the expected caloric intake of the basic SMD is 1,000 calories per day. This would include 85 grams of carbohydrates, more than most low-carbohydrate diets and enough to prevent ketosis in most people.

The authors of the SMD suggest preliminary consultation with a physician, a daily 2-mile walk, and alternation of 2-week periods on the basic diet with 2-week periods on a more liberal "Keep-Trim-Program." The basic diet limits dairy products; thus nutrients such as calcium and riboflavin might fall short of the mark if the dieter adheres to this regimen over a prolonged period of time. The Keep-Trim-Program is better balanced nutritionally, but may not result in weight loss.

High Carbohydrate Diets

At the other end of the spectrum are dietary programs that restrict protein but permit carbohydrates. Examples are the Doctor's Quick Inches-Off Diet, the Banana and Skim Milk Diet, the Rice Diet, and lately, *The Pritikin Program for Diet and Exercise*.

The Pritikin Diet is basically low in fats (5-10%), cholesterol (100 mg/day or less), protein (10–15%) and highly refined carbohydrates (e.g., sugars). It is high (80%) in complex carbohydrates (e.g., whole grains, fruits and vegetables). Salt is highly restricted. Coffee, tea, alcohol

and smoking are not allowed; and a program of regular exercise is recommended.

The book states that minimally processed grains, roots, fruits and vegetables are much better protein sources than meats, fish, eggs and milk. This is untrue. While animal proteins contain all of the essential amino acids in amounts sufficient to meet human requirements, most plant proteins are deficient in one or more of them. Overrestriction of animal proteins can also make it difficult to obtain adequate amounts of iron and trace minerals, such as zinc; but supplements are not recommended.

The regular Pritikin Diet is not intended primarily for weight reduction, although the restrictive diet plus regular exercise would promote weight loss. The program supposedly can spare mankind much of the scourge of "aging pathologies," e.g., atherosclerosis, high blood pressure, gout, arthritis and other degenerative conditions. Since the program deals with many of the medically recognized risk factors (smoking, overeating, alcohol excess, inadequate exercise), it may have some beneficial effect. However, its spectacular claims for disease prevention or reversal of serious illness have yet to be scientifically established. It is unlikely that most people could permanently modify their diets to the extent recommended by the Pritikin Plan. Even if they could, current evidence does not warrant such drastic dietary change for the general public.

Diet Aids

Non-prescription diet aids sold in pharmacies and health food stores enjoy popularity despite their questionable effectiveness. Ads for many of them make dieting sound like more fun than eating. These products, sometimes accompanied by a printed diet, generally fall into six classes: (1) candies alleged to curb appetite, (2) anti-appetite agents, such as propanolamine, (3) local anesthetics, (4) diuretics, (5) bulking agents, (6) secret cures—which usually turn out to contain such ingredients as kelp, fructose, caffeine or protein. Most of these products are discussed in the quick-reference guide at the end of this chapter.

Diet plans that substitute a protein-containing preparation for one or more meals are sold door-to-door and at retail stores. There has been little clinical testing of these programs, but it seems likely that they will prove too monotonous for long-term use.

Fructose, a sugar, is being promoted with wild claims at prices up to \$8.00 per pound. For example, according to a recent newspaper ad for "The Doctor's Choice Fructose Diet":

Here at last is a diet for people who crave sweets, but want to lose weight . . . Fructose is one of the sweetest and most remarkable of all natural substances. It tends to satiate the craving for sweets, satisfy appetite and hunger, and supply the body with an excellent source of energy . . . Fructose supplies the brain with enough energy to keep its hunger alarm off.

Dieting with fructose is being promoted in several books and may well become a major fad.

Non-nutritive sweeteners are also very popular because they enable people to enjoy sweet drinks that contain almost no calories. Many people hope that use of artificial sweeteners will result in lowering of total caloric intake. This would be true if the rest of one's diet remained rigidly fixed but we know that this seldom occurs. Most people eat to a given caloric satisfaction and are likely to replace the "saved" sugar calories with others.

Behavioral Modification

The purpose of behavior modification therapy is to help people gain control over their eating behavior. This may be accomplished by understanding the factors that produce the "abnormalities" and retraining towards a more favorable behavior pattern. But there is more to it than mere suppression of the cues to eat or overeat.

A number of books outline detailed steps such as removing from sight all suggestions of food, eating at only one place at designated times, eating slowly while chewing thoroughly, and keeping a diary of food eaten. These ideas may be helpful to some individuals, but are not a substitute for more individual analysis and retraining under professional supervision. Most reliable medical clinics include behavioral modification in their programs.

Researchers have found that the number of fat cells in each person remains constant from puberty onward. Evidence from animal experiments suggests that when people lose weight, their fat cells shrink in size but do not decrease in number. These facts suggest that preventing overweight during childhood may lower the chance of obesity in adult life.

What Should You Do?

Losing weight is a matter of arithmetic. Any diet that contains fewer calories than you expend will cause you to lose weight. A deficit of 500

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calories per day will yield a weight loss of one pound a week. This may not seem like much, but it will add up to 52 pounds in a year. Crash diets may provide faster initial weight loss, but they may also lack important nutrients, may injure health, and will not help people learn to readjust their long-range eating habits. Most nutritionists therefore recommend a low-calorie, balanced diet which aims for a weight loss of 1–2 pounds a week.

An adult whose weight is just right should eat the amount of food that permits maintaining that weight. (Most people who lead moderately active lives need about 15 calories per pound to maintain their weight.) If weight begins to rise, or is too high to begin with, total caloric intake should be cut down. This can be done either by counting calories or by intuitively reducing portion sizes and eating lower calorie foods until the desired rate of weight loss is achieved.

Although it takes a considerable amount of exercise to match the effect of calorie restriction, exercise on a regular basis is also important. The idea that exercise is self-defeating is a myth. In most cases, physical activity does not unduly increase food intake.

Let's face it. Losing weight is difficult enough without wasting money and risking one's health in the pursuit of false hopes.

Quick-Reference Guide to Weight Reduction Methods

"Amazing diets" of one kind or another produce amazing profits for their promoters. They are all based on the fantasy that a magic combination of ingredients can cause you to lose weight no matter how much you eat. Use one and you are more likely to shed dollars than pounds. Here are some clues to help you recognize an unreliable book or diet promotion:

1. It uses bad biochemistry.

2. It suggests that a nutrient or food group is either the "key" to weight reduction or the primary "villain" that keeps people overweight.

3. It claims to be a revolutionary new idea.

4. It reports testimonials rather than documented research.

5. It refers to the author's own case histories but does not describe them in detail.

6. It claims 100% success.

7. It claims persecution by the medical profession.

Amphetamines (e.g., Dexedrine) are sometimes used to suppress appetite at the beginning of treatment. Their effect is temporary and they can have unpleasant side effects.

Diet Facts and Fads

Artificial bulk-producing agents frequently are sold with the claim that they will curb appetite by tricking the stomach into thinking it is full. Your stomach won't be tricked, so don't you be tricked either.

Artificial sweeteners, used in place of sugar, provide another means of reducing calorie intake.

"Cellulite" spot-reduction plans are supposed to get rid of "unsightly, unevenly distributed pads and lumps of fat which dieting and exercise will not dissolve." The plans consist of diet plus exercise and massage. Exercise and the recommended diet are good for general weight-reduction, but the "cellulite" concept is mere window dressing.

Counting calories. Safe and effective, the low-calorie balanced diet is ranked highest by professional nutritionists.

"Diet candies," to be taken before meals, are supposed to reduce appetite by raising blood sugar. They usually contain about 25 calories per candy. When taken as recommended, they have little effect on blood sugar and no effect upon appetite.

Diuretics can make you lose weight by causing your body to shed water. This effect is short-lived; the weight will come back when you stop the pills. Diuretics can have bad side effects. If you want to lose fat, not water, stay away from diuretics as a "weight reducing" pill.

Exercise machines tend to be overpriced and most people find their use monotonous. Good exercise programs can help you burn up calories and improve your body tone.

Formula diets (usually liquid) containing specified numbers of calories offer a simple regimen which does not require much knowledge of nutrition. They may substitute usefully for one meal a day, but most people find them too monotonous to use more often.

HCG (Human Chorionic Gonadotropin), a hormone derived from the urine of pregnant women, is not effective. The 500-calorie diet which often accompanies injections is a semi-starvation one which is likely to result in protein loss.

Kelp, lecithin, cider vinegar and B_6 accompanied by a 1000-or-so calorie diet will cause weight loss—as a result of the diet alone. The kelp and other supplements are of no benefit in a weight reduction program.

Low-calorie foods can give you a bit more food with fewer calories. Non-caloric sweeteners and low-calorie dressings may make your food more interesting, but their nutritional value is negligible. People on lowcalorie diets must pay close attention to the nutritive content of their foods. Choosing foods by calories alone is not a useful approach.

Obesity specialists should be approached with caution. Some are ex-

cellent, but many are overpriced and follow questionable nutritional theories.

Protein supplements are a waste of money. You can and should get all the protein you need from ordinary foods.

Reducing clubs often offer needed moral support and nutritional information. If you join a weight-reducing club, make sure it has a consulting nutritionist.

Reducing pills (non-prescription type) are often promoted with exaggerated claims that you can eat all you want and still lose weight. This type of false claim has made millions for some of its promoters. [Regimen tablets, claimed to shed pounds without dieting, sold for an estimated \$16 million between 1956 and 1962. In the court case that ended in conviction of the manufacturer and the advertising agency, it was shown that TV models who reduced during an advertising campaign had done so by *dieting.*] Most currently advertised diet pills contain phenylpropanolamine, a decongestant drug that can produce some temporary lessening of appetite. This drug, which is also a mild stimulant, can be dangerous to persons with heart disease, high blood pressure, diabetes or hyperthyroidism.

Reducing salons may give you moral support in keeping to your program of exercising, but if you can't afford one, don't use one. Exercise at home on a regular basis, but beware of over-exertion.

Sole diets—such as the fruit diet, the macrobiotic diet, or any diet restricted to one food—are unhealthy because they do not provide adequate nutrition.

Spas vary in their practices all the way from total starvation at fancy prices to well-run retreats which feature proper diet and exercise instruction. People wishing to use such facilities should investigate them beforehand with great care.

Spot reducers, such as creams, sauna belts and electric shock devices, may *appear* to work by causing water loss or muscle contraction. These are temporary effects. Spot reducers do *not* roll it off, rock it off or bake it off!

Starvation diets can cause protein breakdown and are potentially dangerous.

Surgical procedures which bypass part of the small intestine are in the experimental stage. So far, the results are unsatisfactory.

Thyroid hormones in large amounts can cause you to burn calories faster, lose weight and strain your heart. If your thyroid is normal, small amounts of prescribed thyroid will simply cause your body to produce less of its own. Thyroid preparations must carry a label statement that they are not for use in weight reduction. If you suspect "hypothyroidism" (underactive thyroid gland) as the cause of your overweight problem (a very rare disease, by the way), have it diagnosed at once by a physician who does not rely on the basal metabolism test (BMR) to make his diagnosis.

Vitamin supplements are not necessary if you eat a balanced diet.

Weight-control clinics and health clubs vary widely in their reliability. Claims that a center is medically supervised or has a physician on the premises may or may not be true. Some facilities have qualified paramedical professionals while others use inadequately trained laypersons. Programs often reflect the latest diet fads.

"Wrapping" your body so that a concentrated salt solution can take the water out of the outer layers of your skin can produce only temporary shrinkage at best. At worst, if enough of you is wrapped, you can get seriously ill from dehydration.

Your doctor may be able to help you plan a proper diet or refer you to someone else for that purpose. Registered Dietitians of the American Dietetic Association are trained in dietary counseling.

Recommended Reading

The Healthy Approach to Slimming—a 21-page booklet prepared by the AMA. Send \$1.00 for pamphlet #OP-003 to Order Department, American Medical Association, P. O. Box 821, Monroe, WI 53566.

Nutrition for Athletes

Optimum nutrition for athletic performance requires no more than a well-balanced diet composed of foods which are readily available at grocery stores and supermarkets. The only people who benefit from expensive supplements are those who sell them.

BY

ELLINGTON DARDEN, Ph.D. Director of Research Nautilus Sports/Medical Industries For ten years—from 1959 to 1969—I was a firm believer in highprotein supplements, vitamin pills and other so-called "health foods." I took vitamin B-12 for endurance, wheat germ oil for energy, garlic for purifying the blood, kelp tablets for muscle definition and vitamin B-6 for strength. At the same time, I avoided white bread, carbonated drinks, ice cream and most other carbohydrate foods. I was convinced that this dietary program would help me become a superior athlete.

Where did I get these beliefs? The majority came from physical fitness and health magazines. According to these publications, most recent champions had followed such a program. I never questioned these concepts until I entered graduate school at Florida State University. In fact, I kept trying to find new ways or more concentrated protein supplements to be certain that I was consuming over 300 grams of protein per day.

During my first post-graduate year, I attended a seminar at which Dr. Harold E. Schendel spoke on the role of nutrition in physical fitness. Dr. Schendel was professor of nutrition at the University, but had spent four years in Africa and elsewhere directing research on problems of protein malnutrition. He had more than 70 published papers to his credit. After our first meeting, we spent many hours discussing how various foods and eating habits might affect athletic performance. To say the least, Dr. Schendel disagreed with most of my nutritional concepts and did not believe that my special eating habits were necessary, beneficial or even safe. According to him, an athlete did *not* require large amounts of vitamins, proteins, or any special foods.

Needless to say, Dr. Schendel did not convince me. After all, his knowledge was mostly theoretical, but I was actually eating a special diet and "knew" about its value. I was following the methods of champions and was not about to change my athletic training program because of any university professor or research done on rats! Rather than argue, however, Dr. Schendel suggested that I experiment on myself to determine whether an athlete in hard training could actually use the massive amounts of protein I was eating.

For two months, I kept precise records of my dietary intake, my energy expenditure and how I felt. My protein intake varied from less than 100 grams per day to more than 380 grams, most of which was obtained from a 90 percent protein powder. All of my urine was collected and analyzed to see whether the protein I ate was being used by my body or merely broken down and excreted in my urine.

The result of this study started me thinking in a different direction. According to the Recommended Dietary Allowances (RDA), my protein need (for a body weight of 215) was 77 grams per day. To my surprise, whenever I consumed more than this amount, the excess was excreted. My weight remained relatively constant and I noted no difference in strength regardless of the amount of protein consumed. In fact, when I went off my massive protein diet (relieving my body of the burden of metabolizing the excess protein), I experienced a surge of energy!

Further experimentation made it clear that when I consumed more than the RDA of various vitamins and minerals, excess amounts of these substances were also excreted rather than used by my body. Similar observations had been made by nutrition scientists since the 1930's, but it took a personal experience to undo the brainwashing I had undergone during my early years as an athlete. Today, with a Ph.D. under my belt, I understand why optimum nutrition for athletic performance requires no more than a well-balanced diet composed of foods which are readily available at grocery stores and supermarkets. The only people who benefit from expensive supplements are those who sell them.

When a champion athlete attributes his outstanding speed, strength or endurance to a dietary program, it is perfectly natural for other athletes or those participating in serious fitness or exercise programs—to pay attention to his words. If a magic food, pill, potion or dietary regimen might change one overnight into a world champion, why not give it a try? It may be natural, but it is still a mistake. I have yet to meet a single such athlete who had the slightest understanding of what happens to his favorite foodstuffs after they enter his body. Such athletes obtain their results in spite of their nutritional beliefs and not because of them.

I don't mean to suggest, however, that nutrition is unimportant to athletic performance. While most of the alleged benefits of special diets are myths, correct nutrition can make the difference between having enough stamina and tiring half-way through a game; or between a sense of well-being and a feeling of not being up to par.

Much of what is known today about nutrition and athletic performance can be presented briefly in a fact-fallacy discussion. Since exercise is closely related to nutrition, this chapter also examines some common misconceptions about conditioning activities.

Protein Foods

Fallacy: Large amounts of protein foods and protein supplements are especially important during intense training.

Fact: Contrary to what many athletes and their advisors believe, most athletes get more than enough protein. Surveys show that athletes often consume four to five times their actual requirements. Yet there are absolutely no health or performance benefits from excessive high-protein

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eating. The following table was developed from the Recommended Dietary Allowances (RDA) of the Food and Nutrition Board of the National Research Council:

Protein Needs—National Research Council, 1980				
				Average
		Average	Multiply	Protein
Age		Weight	Weight by:	Need
Child	1–3	29 pounds	.79	23 grams
	4-6	44 pounds	.68	30 grams
	7–10	62 pounds	.55	34 grams
Male	11–14	99 pounds	.45	45 grams
	15–18	145 pounds	.39	56 grams
	19+	154 pounds	.36	56 grams
Female	11–14	101 pounds	.45	46 grams
	15–18	120 pounds	.38	46 grams
	19+	120 pounds	.37	44 grams

Fallacy: Protein foods are great for promoting power-packed energy.

Fact: The promotion of "power-packed" protein is a sales gimmick. Although proteins can be used as energy sources if necessary, carbohydrates and fats are preferable. They are used more easily by the body and also cost less than protein foods.

Fallacy: High-protein diets are a must for fat reduction.

Fact: Proteins and carbohydrates both have four calories per gram. Fats have nine calories per gram. Since "high-protein" foods (such as steaks) can contain a high percentage of fat, a "high-protein" reducing diet may actually have 70 percent or more of its calories coming from fat.

Part of the weight loss on a high-protein diet is caused by minor nausea and loss of appetite which lead to reduced caloric intake. As proteins are broken down, their waste products are flushed out of the body by the kidneys. The resultant water loss, perhaps five to eight pounds in the first week, may mislead the dieter into thinking he or she is losing fat. There is very little water in fat. The water actually comes from muscles, vital organs and fluid outside of the cells. This is what takes place with the use of liquid protein supplements, amino acid supplements and high-protein powders that are currently so popular. None of them causes long-term fat loss, and many are actually dangerous.

Fallacy: Large amounts of protein cannot hurt the body.

Fact: Scientists have recently found that too much dietary protein can be dangerous. The metabolism and excretion of nonstorable protein can

impose serious stress and cause enlargement of the liver, kidneys and other vital organs.

Government investigators believe that more than 50 deaths are linked to the combination of fasting plus low-quality protein supplements (see Chapter 13). A diet of this type was popularized by Dr. Robert Linn in his book, *The Last Chance Diet*, which was published in July, 1976. Prior to this date, athletes, particularly bodybuilders and weightlifters, had been consuming liquid protein supplements for years. Fortunately, they were eating other foods. Scientists who have analyzed the dark, syrupy liquids say they contain low-quality, partly digested protein derived from cattle hides and tendons. Artificial flavor is added to disguise the otherwise horrid taste.

There is no scientific evidence supporting the popular belief that athletes require massive amounts of protein-rich foods, protein supplements or liquid amino acids.

Other "Special" Foods

Fallacy: Pre-competition meals for athletes should consist of special foods.

Fact: Although it may give an athlete a feeling of strength and security, what he eats on the day of competition has very little to do with the production of energy for that day. Athletes who compete in non-stop, marathon-type events are an exception to this rule. They can benefit from pre-event meals of carbohydrate-rich foods, as well as several days of carbohydrate loading. Nutritional scientists have found that it takes from two to fourteen days for the food a person eats to be utilized for energy. The following guidelines should be considered in planning pre-competition meals:

1. Energy intake should be adequate to ward off any feelings of hunger during competition.

2. The necessity for urinary or bowel excretion during competition can be serious or even disabling. For this reason, large amounts of protein foods, bulky foods or highly spiced foods should be avoided.

3. The meal should be eaten at least three hours prior to competition to allow for digestion to take place.

4. Fluid intake before, during and after prolonged competition should guarantee optimal hydration. This can be accomplished with water and various fruit juices.

5. The pre-competition meal should be food with which the athlete is familiar. Food that provides psychological assurance will strengthen the determination to win.

Fallacy: Honey is good for quick energy.

Fact: There are no quick-energy foods. Nor is there any magic in eating honey. Honey contains glucose and fructose, the same simple sugars that are produced by the digestion of table sugar. Honey contains a higher percentage of fructose, but it is not significantly superior to other common sweets. Unfortunately, dietary quacks have falsely promoted honey as a sweet that is better tolerated than other sugars.

Taken in large quantities, honey can produce several detrimental effects. Excessive amounts of honey, or other sweets, can draw fluid from other parts of the body into the gastrointestinal tract. This shift in fluids can dehydrate the athlete in long distance events where sweat loss can affect performance. A concentrated sugar solution may also distend the stomach, causing nausea, cramps and/or diarrhea. If an athlete is determined to take honey or sugar, he should do so in small quantities with plenty of water. He should have no more than three tablespoons of the sweets in any one-hour period. This will appease his psychological need. It will not improve his performance.

Fallacy: Bee pollen tablets offer a tremendous breakthrough in helping an athlete run faster and farther.

Fact: The athletic world can thank the Finns for publicizing bee pollen. It all started in 1972 when Finland's Lasse Viren won the 5,000 and 10,000-meter runs in Munich and began buzzing the news about pollen tablets. When Viren repeated his success in Montreal in 1976, healthfood companies decided to increase the availability of bee pollen—at a cost up to \$45 per pound.

The cost is a result not only of its supposed magical properties, but also the way it is harvested. As bees obtain nectar from flowers, pollen collects on their bodies. When they return to their hives, the pollen is scraped off by wire brushes that have been placed around the entrances. The very fine-grained powder is then collected and manufactured into tablets. According to the major U.S. distributor, bee pollen tablets contain all of the essential amino acids and many vitamins and minerals. None of these nutrients offers any magic, and all can be obtained easily and less expensively in conventional foods.

Recent research at Louisiana State University showed that bee pollen has no effect on the performance of runners and swimmers. When confronted with this evidence, the American distributor noted that the LSU study used bee pollen from France, and not the full-potency pollen from England which, naturally, he sold. He also admitted that bee pollen is unnecessary when the diet is already well-balanced.

Fallacy: Large doses of wheat germ oil will improve your stamina.

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Fact: Wheat germ oil is rich in B vitamins, protein and vitamin E. Some athletes drink it straight from the bottle. It is high in calories and more expensive than most foods which contain the same nutrients. This product contains no unique ingredients that will improve endurance.

Fallacy: Steak is the breakfast of champions.

Fact: Thick, juicy steaks have been a training table staple for many years, particularly the 1950's and 1960's. Even today, many coaches and trainers believe there is a corollary between red meat and strength and endurance. However, scientific research has shown repeatedly that steak, which contains protein and fat, is not as efficient in supplying energy for athletic performance as food that is rich in carbohydrates. The ideal diet for most athletes should be about 59 percent carbohydrate, 28 percent fat and 13 percent protein.

"Forbidden" Foods

Fallacy: Table sugar should be avoided like the plague.

Fact: Although refined sugar is a concentrated form of calories, it does not contain a single harmful substance. Nutritionists would prefer that athletes get most of their carbohydrates from fruits, vegetables, breads and other foods that also supply vitamins, minerals and bulk. Table sugar need not be avoided, but should be used in moderation.

Fallacy: Fried potatoes are harmful to the digestive tract.

Fact: Greasy foods are digested slowly because fat retards the emptying time of the stomach, but this does no harm to a normal digestive tract. Most fats are digested at about the same rate whether they are found in butter, margarine, salad dressing, shortening or cooking oils used to fry foods such as potatoes. As for potatoes, they are one of the most nutritious vegetables. Fried potatoes are therefore certainly not taboo for athletes.

Fallacy: Hamburgers should be avoided during training.

Fact: A hamburger with all the trimmings is a fairly well-balanced meal. There is no good reason why athletes cannot eat hamburgers several times a week. However, people who eat regularly at fast-food chains would be wise to make sure that their other meals include enough fruits, vegetables and dairy products. They should also keep in mind that fast-food hamburgers tend to be a bit too heavy in fat content.

Fallacy: Bread is a fattening food that athletes should avoid.

Fact: Bread is one of the most nutritious foods. It is low in calories about 60 per slice—and contains ample amounts of niacin, riboflavin, thiamine, iron, protein, carbohydrates and calcium. The real reason most people associate bread with gaining weight is not the bread itself, but what they put on it.

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Fallacy: Athletes should avoid white bread and eat only whole-grain bread.

Fact: There are only minor differences in the nutrient content of whole-grain and enriched breads. Whole-grain breads are a fair source of fiber, which many authorities feel is helpful to bowel function. Ample amounts of fiber are also present in other common foods such as apples, carrots, corn, broccoli, pineapple and raw cabbage. Athletes can therefore eat whatever bread appeals to them.

Salt and Water

Fallacy: Athletes should consume several salt tablets each day during hot weather.

Fact: Salt tablets usually do more harm than good. Athletes need more salt during hot weather, but salt tablets often irritate the stomach or pass through the system without being absorbed. Nationally syndicated columnist Lawrence E. Lamb, M.D., recommends that in addition to drinking plenty of water, athletes should drink at least a quart of low-fat milk or fortified skim milk a day, plus two eight-ounce glasses of orange juice. Milk has about the same salt content as the healthy human body, and orange juice contains potassium, which is also important in hot weather. A liberal use of the salt shaker during meals is usually sufficient for extra salt.

Fallacy: Drinking water during practice will upset an athlete's stomach.

Fact: Prohibiting water on the practice field has no physiological basis. Withholding liquids during hot, humid weather makes an athlete susceptible to heat cramps, heat exhaustion, or the more serious and sometimes fatal heat stroke. Dehydration causes fatigue, which in itself makes an athlete more vulnerable to injury. All coaches, athletes and even non-athletes should realize the necessity of drinking fluids before, during and after vigorous activity. Furthermore, the fluids may be iced. The old idea that people warm from exercise should not drink ice water because it causes cramps is completely unfounded.

Vitamins and Minerals

Fallacy: It is a good idea to take a multiple vitamin and mineral supplement every day.

Fact: A typical television commercial shows an athletic-looking man explaining how he stays healthy. He says he watches his diet, gets plenty of exercise, and "just to be sure" takes a daily vitamin-mineral supplement. The ad implies that a balanced diet cannot provide enough nutrients. This is untrue. All necessary nutrients are easily obtained from a sensible diet of ordinary foods. The sole exception is that some women who have excessively heavy menstrual periods may need to take iron supplements.

Another irresponsible type of vitamin advertising is the result of action by the United States Olympic Committee (USOC). For a tax-deductible contribution of \$50,000 to \$1 million, the USOC will award a company the exclusive right to advertise that its product was "selected by" the U.S. Olympic team or that it is "supplier to" or "contributor to" the team. The exact wording depends upon the size of the contribution. Squibb's highpotency vitamin *Theragran* has been "selected by" the USOC for a mere \$500,000.

George V. Mann, M.D., a noted nutritionist, is Professor of Biochemistry at the University of Tennessee and a member of the editorial board of *The Physician and Sportsmedicine* magazine. Commenting on the *Theragran* endorsement in a recent issue of the magazine, he said:

I don't know of any evidence that athletes benefit from supplementary vitamins. Inevitably this endorsement, however it's worded, will just encourage people everywhere to buy a lot of *Theragran*. The bottom line is that it's pure promotional hyping. This isn't the same thing as an Olympic sweat shirt. Of all the people in the world, international class athletes probably need supplementary vitamins the least.

Conditioning

Fallacy: An athlete who wants to gain weight or bulk should resort to a high-calorie diet.

Fact: To most athletes and coaches, gaining weight or bulk means getting fatter by eating more calories. But gaining fat will make an athlete slower, less coordinated, less healthy and more prone to disease in later life.

Forced feeding is unfortunately the rule at most college training tables, especially those of football players. Very few athletes and coaches realize that such eating does more harm than good. Athletes should be lean and muscular. Their goal should be to gain extra muscle, not extra fat. Muscle is over 70 percent water. It takes only 600 extra calories to build a pound of muscle, but unless the athlete has stimulated muscle growth beforehand, eating extra calories will build fat rather than muscle. Muscular growth is stimulated best by a program of progressive resistance exercises or proper strength training.

Fallacy: Strength training movements should be performed in an explosive manner.

Fact: Explosive strength training is of absolutely no value to any athlete except a competitive weightlifter. Yanking an athlete's muscles and tendons does *not* build strength and may produce injuries. Injuries occur when a force exceeds the structural integrity of the body. All ligaments, tendons, muscles and bones have breaking points.

During the 1975 National Weightlifting Championships, cinematographic data were collected as a 181-pound athlete ruptured his patellar (kneecap) tendon while attempting to jerk 385 pounds. Kinetic analysis revealed that as the weight was jerked overhead, over 3,000 pounds of force were exerted on the patellar tendon! A large percentage of Olympic weightlifters suffer permanent damage to the tendons, ligaments and muscles that surround major joints. This is evidently a risk they are willing to take. It should not, however, be one to which other athletes should subject themselves. Competitive sports are dangerous enough without the added jeopardy of explosive weightlifting.

Maximum results from strength training will be obtained if each repetition is performed in a slow, smooth manner. The weight should be lifted, not thrown. At least two seconds should be taken to lift the weight and about four seconds to lower it.

Fallacy: The stronger the athlete, the more exercise he needs.

Fact: The opposite is actually true. Advanced trainees need harder exercises, but in most cases, less exercise. Strength training sessions should not be performed more than three times a week. Most in-season training should be only twice a week.

Fallacy: Women should avoid strength training because they will build large muscles and lose their femininity.

Fact: Proper training can strengthen a woman's muscles without significantly increasing their size. Building large muscles requires two factors. First a genetic potential must be present in the muscles themselves—the individual must have long muscle bellies and short tendon attachments. Second, an adequate supply of male hormones, particularly testosterone, must be present in the blood stream. Women very rarely have either of these factors. Heavy exercise is worthwhile for women because it strengthens their muscles, prevents injuries, and turns the respective body parts into trimmer and more solid flesh.

Fallacy: Muscles will turn to fat if strength training is discontinued for several months.

Fact: If athletes in training do not eat less when they become less active, they will gain weight in the form of body fat. At the same time,

their muscle masses will get smaller (atrophy) from lack of use. But these two processes are not directly related. The muscle does not actually turn to fat.

Fallacy: Only professional athletes need strong muscles.

Fact: Anyone can benefit from stronger muscles. Strengthening of muscles will lead to increased power, speed, efficiency and productivity. Strong muscles are also less prone to injury.

Fallacy: Running is the best overall conditioning activity.

Fact: Proper strength training, which is a complete conditioning activity, is much better for you. Running is a limited, mid-range activity that mainly involves the large muscles of the lower half of the body. Although running can develop high levels of heart-lung endurance, it can actually reduce overall levels of muscular strength and flexibility. Running can also cause joint damage from the excessive amount of pounding involved each time the athlete's foot hits the ground.

Fallacy: Agility drills are great for developing quickness in athletes.

Fact: Agility drills develop proficiency at doing the specific drills being practiced, not overall quickness. Quickness is a product of many factors, including: (1) the amount of body muscle, (2) the amount of body fat, (3) the ratio of muscle mass to body weight, (4) skill, (5) body proportions, and (6) motivation. The easiest way to accelerate an athlete's quickness is to increase his muscle mass, which will favorably change his ratio of muscle mass to body weight. The most effective way to accomplish this is by proper strength training.

Fallacy: Steroid drugs can effectively increase muscular size and strength.

Fact: Androgenic-anabolic steroids are currently the most popular drugs used by athletes. Common drugs include Dianabol, Winstrol, Anavar, Nilevar, Durabolin and Methyltestosterone. These drugs are synthetic forms of testosterone and other male hormones. They are being obtained legally from physicians or illegally on the black market.

The term "androgenic" refers to the production of male characteristics, while the term "anabolic" refers to the building processes within the body. Athletes who use these drugs presume they will stimulate muscular growth and lead to greater strength, but this will not actually take place. What does happen is that the drugs cause water retention, leading to a gain in weight which can convince an athlete that he has bigger muscles and is now stronger. Any increased feeling of strength, however, is the result of "placebo power" (the power of suggestion), a well-known phenomenon in medicine.

The fact that steroid drugs do not help an athlete's body would be

insignificant if the drugs had no harmful side effects. But they do. A physician at a large New York hospital recently examined over 300 athletes who had used large doses of steroid drugs. More than 25 percent of them had permanent damage to their bodies. The rest experienced temporary complications for up to six months after the drugs were discontinued. The problems included: testicular atrophy, pituitary inhibition, prostate enlargement, fluid retention, high blood pressure, kidney damage and fibrosis of the liver.

All athletes using drugs in the hope of improving their performances would be wise to accept the following statement from Arthur Jones, owner of Nautilus Sports/Medical Industries:

There is no known drug that will improve the performance of a healthy athlete . . . and there never will be such a drug; normal health being just that, normal . . . super health, by definition, is impossible.

Conclusion

The foremost dream of many athletes is to find a food, exercise or magic formula that will somehow turn them into champions overnight. This dream is stimulated by the enormous pressure to "win at all costs." While exercise and nutrition gimmicks may sometimes improve performance by increasing self-confidence, they cannot be recommended from the viewpoint of health, safety or economy. Scientifically-based training methods offer much more.

Recommended Reading

The Superfitness Handbook, by Ellington Darden, Ph.D.

Physical Fitness and Sports Medicine, a series of 15 booklets written by various experts and edited by Dr. Darden. Topics cover general conditioning as well as how to train for specific sports. Information about the series can be obtained from Anna Publishing, Inc., 2469 Aloma Avenue, Suite 222, Winter Park, FL 32792.

Metabolics: Putting Your Food Energy to Work, by Lawrence Lamb, M.D.

15

The Misery Merchants

For every dollar spent on arthritis research, 25 dollars are spent on arthritis quackery.

DIANA BENZAIA Former Associate Director of Public Information The Arthritis Foundation

BY

The Misery Merchants

"Do you ache all over when you wake up in the morning? Are your joints stiff and swollen during the day? Do you fall asleep in pain? Then you don't need a doctor to tell you have arthritis. And a doctor can't cure you either. But our out-of-this-world treatment can cure you!

Government scientists have never revealed the fantastic medical benefits of soil samples brought back from the moon. But now the secret is out! This amazing moondust will cure you of arthritis—as it has cured others—and you can have it right now, without a doctor's prescription! The cure is quick and the price is cheap when you think of the happy life ahead of you—without arthritis!"

Would you believe the above sales pitch—that a single salesman has obtained closely guarded samples, that an arthritis cure is being kept secret, that a layman can cure what a doctor cannot?

Millions of people have believed such yarns in the past and continue to fall for modern-day versions. Gadgets used to be the mainstay of arthritis quackery. Today the emphasis is on unproven drugs, but the pitch of the quack promoters remains much the same. Let's examine it closely.

"You don't need a doctor to tell you have arthritis." False! There are nearly one hundred different kinds of rheumatic disease. Arthritis can strike at any age, even in infancy, and can last a lifetime. Proper treatment requires proper diagnosis. Symptoms similar to those of arthritis may even be caused by other types of disease. Only a qualified physician can properly diagnose and treat arthritis.

"Government scientists have never revealed the fantastic medical benefits of soil samples brought back from the moon." False! No scientist would have reason to keep an arthritis cure secret. Sharing a "secret cure" is a favorite sales trick of quack promoters. It is also a way to sell newspapers, as the sensational tabloids have discovered. Their headlines promise "cures" while referring to the promises of quacks or the unconfirmed, preliminary findings of researchers.

"This amazing moondust will cure you." False! There is no cure for arthritis. It is common, however, for the disease to have ups and downs. Some patients, after having been troubled by pain for months, may suddenly feel free of all symptoms. The absence of pain may last for days, weeks or even months. If, by pure coincidence, the patient has used a quack product just before this period of temporary improvement, he will be tempted to believe that the product has cured him.

"The cure is quick and the price is cheap." False! Arthritis victims waste almost a billion dollars a year on remedies which range from useless to dangerous. They can also waste valuable time. Although a doctor cannot promise quick results, he can plan a program of medication and

The Misery Merchants

physical therapy which can minimize pain, deformity and disability. Early diagnosis and treatment offer the best results. Patients who walk away from their doctor when they learn that proper treatment may be slow and limited will delay treatment that might make a crucial difference in the outcome of their disease. Those who abandon proper medical care for quackery are doomed to disappointment. Yet their chronic pain can make them desperate enough to try anything that sounds good.

Arthritis hucksters, who can do nothing but harm their victims, are truly "merchants of misery." Now we'll look at the various types of "treatments" they have offered.

Gadgets and Devices

The supposed curative powers of various metals have been glorified by quacks for years. You may have seen arthritis sufferers sporting copper bracelets. For best results, promoters recommend wearing one on each wrist to set up a so-called "curative circuit." Pure hokum, of course, but that doesn't stop the salesman from selling or the desperate from buying.

"Magnetic induction" to cure arthritis was claimed for the "Inductoscope." This strange device consisted of metal rings which were to be placed over afflicted parts of the body. The rings were connected by wires to an electric wall outlet. The Inducto-scope had no medical benefit and also exposed its users to dangerous electric shocks. For these reasons, the U.S. Food and Drug Administration stopped its sale. The "Solarama Board" is another gadget which was based on mixed-up electronic theory. Also known as the "Earth Board" or "Vitalator," it was supposed to be placed under the victim's mattress at night. The board supposedly emitted "free electrons" to rejuvenate the body. Its various forms sold for \$85 to \$250.

Radioactive healing powers, which sound good to many laymen, were claimed for the "Vrilium Tube." This was a brass tube about two inches long which contained barium chloride. It cost a few cents to manufacture, yet was sold to arthritis victims for hundreds of dollars. The \$30 "Oxydonor" was claimed to "reverse the death process into the life process" as well as cure arthritis. Buyers were told to clip metal disks to their ankles and immerse an attached cylinder in water—the colder the water the better. Victims of this fraud soon discovered that all they got for their money was cold toes.

Quacks keep up with the times by developing "new models" of their devices just as other businessmen do. The "Polorator," an electric heatshocking machine, first appeared as a large, bulky item to be applied to areas of pain. Later it was issued as an attractive, slim metal wand with a small metal roller at one end. Needless to say, it "polarized" nothing.

Vibrators of all sorts are immensely popular with arthritis quacks. Vibrators may offer some relief of minor muscle pain caused by overexertion or fatigue. They may have a relaxing effect on some muscular tension. But all this is just temporary. Vibrators cure nothing and can sometimes do serious harm by increasing joint inflammation. This is a far cry from the "miraculous" relief promised in some advertisements. Whirlpool baths are also sometimes promoted in misleading fashion. The moist heat of whirlpool devices may temporarily soothe aching bodies, but many which are sold are no more effective than a plain hot bath. In addition, those which fail to maintain constant temperatures may stress the patient's cardiovascular system.

Lotions, oils, creams and liniments are similarly over-rated by some promoters. These products may exert a temporary soothing effect, but advertising which suggests that they hold greater potential is a cruel deception. Such items applied to the outside of the body can have no effect on the internal course of the disease.

Diets and Food Supplements

So the food faddists claim to work inside your body. There is hardly a food item which has not been promoted at one time or another as a "cure" for arthritis. Medical research has found only one form of arthritis (that of gout) which is partially related to diet. Yet myths persist that dietary factors can cause or cure other arthritic conditions.

Perhaps the most widely publicized food supplement at one point was "immune milk." This was said to get its immunity from antibodies produced by cows which had been injected with streptococcus and staphylococcus vaccines. Scientific studies have shown that this milk had no effect on arthritis, yet gullible buyers paid up to \$1.70 a quart for it. Other supplements touted for arthritis have more or less appeal, depending on your point of view. How does cod liver oil and orange juice sound? Not too good? Then the "healer" down the street will suggest honey and vinegar, or maybe molasses.

The idea of "natural" foods as beneficial to health is getting a lot of publicity these days. Diets based on raw foods, foods without chemical additives and other supposedly "natural" nutrition items are being hustled by health food stores. So are misleading books which, unfortunately, have been best-sellers. "Natural" faddists overlook the fact that prehistoric man—who certainly ate no additives—also suffered from arthritis. This fact has been documented by bone studies. So the "health" and "nature" food peddlers go on, offering alfalfa tea, sea brine, citrus concoctions, vitamin supplements and other expensive products that are absolutely useless to arthritis sufferers. In fact, promoters of nutrition nonsense sometimes harm their followers. Fad diets which omit essential nutrients or encourage avoidance of proper medical care will endanger the arthritis sufferer as they will any other person.

Folklore

Dietary myths come from our past. Before the advent of modern medicine, people looked to their environment for "cures." Knowing little about the real nature of disease, they relied on rumors of what helped their ancestors. The Indian medicine man, grandma and others may have no impact on disease. But if someone, somewhere, went into spontaneous remission while following their advice, that advice might become part of folklore. That is why some people with arthritis carry buckeyes, horse chestnuts or potatoes with them. Each is supposed to "draw out" the disease. And why others wrap themselves in the skins of snakes, wolves or wildcats.

"Burial" in horse manure is another remnant of folk medicine. Although the moist heat of manure may have a temporary soothing effect, there are certainly more pleasant ways to reach such a goal. But people don't always expect treatment to be pleasant. They may expect to suffer a bit. Maybe that's why so many submit to another old technique—rubbing turpentine over the affected areas. This also provides warmth, but offers burning pain as well, not to mention the unpleasant odor.

Of course, not all folk remedies are painful. Some of grandpa's elixirs can be quite delightful. Their high alcohol content doesn't stop pain, but may make sufferers less aware of it. But if that's your approach to dealing with pain, why not take it straight?

From Radium Mines to Real Estate Promotions

Nothing is ever "straight" about the quack's promises. Merchandisers of the "Radon-pad" claimed it contained a mixture of radioactive materials from Swiss uranium mines which could reverse the arthritic process when applied to afflicted areas. It was a costly and useless device which emitted less radiation than a wristwatch. Although ordered by the Federal Trade Commission to stop promoting radon gas as beneficial for arthritis, owners of an inactive uranium mine continue to charge people for "treatments." Victims sit in the dank caverns, supposedly soaking up helpful uranium rays. The radiation level in the mine is so low that it can have no effect on the body at all—which is fortunate—because high

radiation levels can increase peoples' chances of developing cancer. Even though there is no scientific evidence that radiation helps arthritis, many arthritis sufferers still travel long distances to visit this mine.

In fact, traveling around for a cure is quite common for arthritis victims. Some seek cures from clinics and spas which offer special diets, mineral baths and even such unpleasant treatments as daily colonic enemas. Some search for a climate which will cure their arthritis; and real estate promoters capitalize on the hope that a warm climate will be the answer to their problem. (Never mind that Eskimos and Laplanders, who live in cold, damp climates, have fewer cases of rheumatoid arthritis than people who live in warmer, drier ones. Or that rheumatologists in states like Arizona have thriving practices.) The "weather myth" of arthritis seems to come from evidence that some people feel worse when barometric pressure drops. While a more stable climate may make them feel better, it will not influence the course of their disease.

Painkiller Promotions

Arthritis victims are bombarded with television ads which suggest that many different non-prescription products can help relieve the pain of arthritis. The ads don't tell you, however, that aspirin is the basic ingredient in most of them.

Plain aspirin is the best single medicine for most people with arthritis. Not only does it reduce pain, but when taken according to a doctor's prescribed schedule, it can also help reduce the inflammation which causes arthritis damage. Plain aspirin, which can be obtained for less than a penny per tablet does this all by itself. Acetaminophen, the other common ingredient in many advertised painkillers, may give equivalent pain relief but lacks aspirin's anti-inflammatory action—and poses greater risks of negative side effects.

So-called "arthritis strength" tablets merely contain aspirin or acetaminophen in a higher-than-standard dosage per pill at a much higher price. An FDA expert advisory panel has recommended that specific claims for arthritis relief be prohibited in the labeling or names of such products. "Consumers who self-treat . . . without first seeking medical attention, may be risking irreversible damage to joints and tissues," the panel said. It also recommended that acetaminophen products carry a warning that they are not appropriate for the treatment of arthritis except under the supervision of a physician.

Many painkiller promotions suggest that their products are superior to their competitors because they "work twice as fast," give "more effective relief," etc. The Federal Trade Commission has finally begun to take action against some of these misleading comparisons. The makers of Bufferin have been ordered to run a disclaimer in future advertisements to the effect that their product does not produce quicker pain relief because of its antacid content. More FTC action can be expected in the years ahead.

Medical Mismanagement

Some doctors harm their arthritis patients because they don't know any better, some even when they do. And in many instances, money is the root of the evil. Money is needed to train more specialists in arthritis care. At present, the number of physicians in the United States who specialize in treating arthritis is less than 2,000—nowhere near enough to supervise the 32 million arthritics who need their attention. So most people rely on their family doctor for arthritis treatment. Some family doctors provide good care. Others are sincere in their wish to help but are not up-to-date in their knowledge of arthritis treatment. An example of this would be a doctor who recommends removal of teeth or tonsils on the theory that they might harbor infections. (The theory that hidden tooth or tonsil infections can cause arthritis has long been disproven.)

A more common response of the untrained doctor is to sympathize with the patient, shrug his shoulders, indicate that "nothing much can be done," and recommend aspirin to alleviate pain. You can't call this approach quackery, but it often drives sufferers to quacks. People who are discouraged, and have more pain than they think they should, are often willing to try any approach which promises hope.

Shoulder-shruggers are nothing compared to the doctors who falsely promise "miracles" to arthritis victims. A prime example was Dr. Robert Liefmann, a Canadian physician who claimed a drug he made would cure arthritis. Called Liefcort, the drug contained steroids and other potentially dangerous hormones. Because side effects from steroids can be dangerous, and even fatal, they are of limited value in the treatment of arthritis. Patients who take them should have close medical supervision. After paying high prices at Dr. Liefmann's Montreal clinic, patients returned home with supplies of medication to last several months—usually taken without medical supervision. As a result, many experienced infections, cataracts, adrenal shock, thinning of the bones, compression fractures, stomach ulcers, and even death.

In 1969, Dr. Liefmann was convicted on 16 counts of violating Canada's Food and Drugs Act and was fined \$2,400. He died in 1972 with the case under appeal. Liefcort has never been approved by the FDA for distribution in the U.S.; but under a loophole in our drug laws, it is

being sold on the premises of a few clinics at which it is prescribed. It is also being sold in Canada and Mexico. Rheumatril, a similar preparation, is sold in the Dominican Republic by a friend of Dr. Liefmann's widow.

Mexican Clinics

Mexico, in particular, has many clinics which offer potentially dangerous treatments. An estimated 120 patients a day go to the clinic of Dr. Louis Carrillo in Mexicali. Dr. Carrillo's examination usually takes only five minutes. Patients are then given prescriptions to be filled only at a nearby drugstore known as "Carrillo's." The drugs may cost several hundred dollars for a few months' supply. Dr. Carrillo tells patients they contain herbs, not steroids, but laboratory analyses prove that some do contain steroids. His patients may feel better for a while after returning home, but many develop complications such as water retention, stomach ulcers, weakening of their bones, infections and cataracts. Then they wind up in the office of an American doctor, if not a hospital or morgue, victims of arthritis quackery in its most drastic form.

Other Mexican clinics offer other dangerous drugs. Dipyrone, manufactured in Germany and sold in Mexico, is one. Dipyrone can cause agranulocytosis, a disease where the white blood count drops and infection can then lead to death. Another drug supposedly found in Mexico is dimethyl sulfoxide (DMSO), an industrial solvent similar to turpentine. DMSO may give temporary pain relief when applied to the skin, but there is no scientific proof that it can reduce swelling and inflammation or change the underlying course of arthritis. Mexican clinics—using the lure of a drug that has not been approved for use in the U.S.—claim to be giving it intravenously and selling it in pill form to take home.

The Arthritis Foundation has never been able to confirm that DMSO is actually being dispensed at the Mexican clinics. When the take-home medication was analyzed, it was found to contain phenylbutazone, diazepam (Valium, a tranquilizer) and sometimes aminopyrine (a mild pain-reliever which is not used in medical practice because it can cause agranulocytosis). Phenylbutazone is an effective anti-inflammatory agent sometimes prescribed for rheumatoid arthritis. Because of its potency and potential side effects, however, it is dangerous to take without medical supervision. Moreover, if phenylbutazone is appropriate for a particular patient's arthritis, it is much less expensive when prescribed by an American physician than when obtained in Mexico as a phony "DMSO" pill.

Quackery in Print

How do arthritis victims in Maine hear about clinics in Mexico? By word-of-mouth grapevine and the power of the printed word. Freedom of the press allows anyone to plug his remedy for arthritis, and quacks take full advantage of the media.

Many books—including some from supposedly reputable publishers promote false theories about the cause and treatment of arthritis. Some push special diets; others make overblown claims for good techniques. For example, ads for *Pain-Free Arthritis*, by Dvera Berson with Sander Roy, said, "It's not just a book. It's a promise." The ads also quoted a physician, supposedly an Arthritis Foundation member, as calling the book "the first truly helpful innovation in the physical therapy of arthritis in the past hundred years." The book implied that fantastic results could be had by all. The Arthritis Foundation fired off a strong protest to Simon and Schuster, the book's publisher. Noting that the physician was not a Foundation member, the organization said, "It is Dvera Berson's thesis that exercise under water helps arthritis. That's true. It does. It's called hydrotherapy . . . It has been around for years. But it is not a panacea."

Authors and book publishers are not the only ones who profiteer in print at the expense of arthritis victims. Health food industry publications abound with claims that food supplements can help. Newspapers and radio and television stations which accept advertisements for misleading books are equally to blame.

Some newspapers seem to "specialize" in reporting so-called "arthritis cures." The *Star*, the *Midnight/Globe* and the *National Enquirer* often carry banner headlines promising such cures. In the October 9, 1979 *Star*, for example, the headline read, "New Pill Will Cure Arthritis Pain" and the article called the product (Orgotein) a "miracle drug." Orgotein is hardly new, having been used for years in veterinary medicine. Orgotein is under investigation for use in humans, but it is certainly not established as safe and effective at this time.

The September 5, 1978 *Midnight/Globe* promised a "proven plan" that "offers relief to millions." One part of the plan was an exercise program developed by the Arthritis Foundation, which actually *can* help arthritis patients when included in a total medical program. The other part was a 1,200-calorie diet used by a weight-reduction specialist for arthritic patients who are at least 40 pounds overweight. After his patients lose weight, they feel better. Hardly a surprising result, but to *Midnight/Globe* it meant that "crippling pain can be dramatically reduced by diet." The

Arthritis Foundation called the story "an example of irresponsible journalism with distorted and inaccurate facts."

The possibility that venoms could help arthritis has been in folklore for many years. Recently, bee, snake and ant venoms have received unjustified publicity. The *National Enquirer*, for example, reported that "Deadly Ant Venom May Help Victims of Arthritis," implying that some very preliminary studies held great promise. Commenting on the article, the Arthritis Foundation said, "There is public fascination about any venom as an antidote for human illness . . . a natural for the *National Enquirer*'s kind of razzmatazz journalism. But it takes more than two promising case histories reported by enthusiastic doctors to prove the worth of an arthritis medication." Ant venom is undergoing further study, but even if it should prove helpful, general public use is years away.

The promise of bee venom has been touted in a book called *Bees Don't Get Arthritis*. But when Gerald Weissmann, M.D., professor of medicine and director of the Division of Rheumatology at New York University School of Medicine, studied the effect of bee venom on rats, he came up with far from promising results. Although bee venom injections stimulated other hormones to protect rats against experimentally-induced arthritis, the injections had no effect once the arthritis was established. Dr. Weissmann does not consider bee venom worthy of further investigation. More important, he warns, repeated injections of bee venom (like repeated bee stings) can lead to fatal hypersensitivity reactions.

Promoters of a cobra venom remedy in Miami are convinced that it works and have applied to the FDA for approval. But again, there is no scientific evidence of its effectiveness—and the results of proper testing may not be known for years.

Acupuncture

Promotion before the facts are all in may not be as unethical as promotion of the definitely phony. But it can still be harmful. Acupuncture is another illustration of this problem. When this ancient Chinese technique arrived on the American medical scene, it was hailed as a surgical anesthetic. Then it was promoted as a cure for various ailments. Massive publicity led many arthritis hopefuls to join the long lines at acupuncture clinics, hoping for a cure. Research to date seems to indicate that acupuncture may provide temporary relief of pain for some arthritis patients—but has no long-range effect on the course of the disease. More scientific research is needed to see whether acupuncture will find a place in the list of legitimate treatments for arthritis. Until all the facts are in, many arthritis patients will be lined up for another disappointment.

Other Quasi-Medical Approaches

Another example of irresponsible publicity for a supposed cure garbed in a medical aura is that which surrounded the antifungal drug, clotrimazole. This drug was hailed by a British physician as a cure for rheumatoid arthritis, which he said was a protozoal infection. His claims received front-page coverage in many newspapers.

Few newspapers gave much space to the follow-up, however, which revealed that: the physician involved was neither an arthritis specialist nor then licensed to practice medicine in Britain; the manufacturers of the drug he recommended reported no knowledge that it had antiprotozoal activity, even if rheumatoid arthritis were a protozoal infection, which it appears not to be; the physician had not conducted a controlled trial and did not even have any clotrimazole to dispense. Pity the poor arthritis patients who wasted thousands of dollars traveling to England for a "cure" after the first newspaper reports!

Reports of arthritis "cures" are typically characterized by unscientific theory, lack of controlled tests and refusal to permit other physicians to examine patient records. When any such "breakthrough" is reported in the press before review by medical colleagues, the arthritis victim should be suspicious. Some "breakthroughs" may merit further investigation, but those with no scientific basis will merely raise false hopes.

The Reality of Arthritis

The arthritis victim who is disappointed by one "miracle" after another may develop a sense of hopelessness. When told that rheumatologists really *can* help him, he may react like the townspeople did to the boy who cried "wolf" once too often. He may disbelieve.

The reality of arthritis is that it is a chronic disease. When it comes, it usually stays and lasts a lifetime. It is the nation's number one crippling disease, but much of its pain and disability can be prevented through early diagnosis and proper treatment. Every patient with arthritis is different, but an individualized treatment program can be worked out for him. Most arthritis patients can be helped with a well-designed program of medication, special exercises, rest and other measures—prescribed by a well-trained physician.

What's also very real is the research now being conducted to find the causes of arthritis. To achieve this, the amount of money spent on research must be increased three or four times.

People in pain form a ready market for "miraculous" cures. For every dollar spent on research into the causes and treatment of arthritis, more

than 25 dollars are being wasted on useless quackery. What a "miracle" it would be if this trend were reversed!

Recommended Reading

- Beyond the Copper Bracelet—What You Should Know About Arthritis, by Louis A. Healey, M.D., Kenneth R. Wilske, M.D. and Bob Hansen.
- The Truth About Arthritis Care, by John J. Calabro, M.D. and John Wykert.

Arthritis—A Comprehensive Guide, by James F. Fries, M.D.

Arthritis—Complete Up-to-Date Facts for Patients and Families, by Sheldon P. Blau, M.D., and Dodi Schultz.

The Poisonmongers

The simple truth is that there's no "scientific controversy" over the safety of fluoridation. The practice is safe, economical, and beneficial. The survival of this fake controversy represents one of the major triumphs of quackery over science in our generation. —Consumer Reports, 1978

BY

MARY BERNHARDT Former Secretary, Council on Dental Health American Dental Association and BOB SPRAGUE

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On May 27, 1975, 213,573 people in Los Angeles exercised their democratic privilege—and voted against healthier teeth! Since 1973, more than 270 Nebraska communities have done the same. In cities from coast to coast, citizens have voted to deprive themselves, their children, and their neighbors' children of the proven health benefits of fluoridation.

Of course, none of these negative voters meant to inflict cavities upon anyone. They were confused—influenced by alarmists who claim that adding fluoride to a city's water supply will "poison" people.

These alarmists are the "poisonmongers." Antagonistic to scientific research, they are commonly known as "antis" (short for "antifluoridationists"). Leaders of the 35-year struggle for fluoridation are frustrated by their tactics. Newspaper editors are commonly taken in by their publicity stunts. And legislators are often overwhelmed by their various and sometimes shrill arguments.

G. Herbert Seberg, D.D.S., knows the antis well. Past-President of the Nebraska Dental Association, he has been fighting to fluoridate Nebraska since 1950. In 1973, Dr. Seberg received two awards for his work in gaining passage of a bill which ordered statewide fluoridation by January 1, 1975.

Promoting the bill, the Nebraska Dental Association led a five-month campaign which had the editorial support of most of the state's newspapers. Opposing the bill was the Nebraska Pure Air and Water Committee. Though loosely organized, its members distributed scare pamphlets, wrote letters to newspaper editors and paid for misleading advertisements.

Though the fluoridation bill passed, Dr. Seberg and his allies could not stem the dogged opposition of a few senators who attached an "escape clause" to it. Fifteen percent of a town's voters could petition for a referendum which would decide the fate of fluoridation in their community. By 1975, although 69 percent of Nebraska's one and one-half million people were drinking fluoridated water, more than 300 of its communities put the issue to a vote. Most of these were small, conservative prairie towns. Fewer than ten percent of these communities voted to fluoridate.

Los Angeles was the largest city ever to vote on this issue. Because of this, its referendum defeat was a great disappointment to fluoridation proponents. In September 1974, the Los Angeles City Council had voted 10–5 to fluoridate. But a few weeks later, pressure from frightened constituents persuaded the Council to allow the public to vote. After the referendum was defeated, 213,573 to 166,549, councilmen voted unanimously to rescind the fluoridation ordinance. Labeling the referendum

defeat "a victory of strident scare tactics over medical evidence," a Los Angeles Times editorial criticized City Council for "retreating from its best judgment."

To date, more than 2,000 American communities have decided the matter of fluoridation at the voting booth. In thousands of other communities, the decision to fluoridate was made by city councils. In recent years, most voters have been rejecting fluoridation. Though this trend is discouraging, public health leaders are not surprised by it. As far back as 1951, Dr. Frank A. Bull, Director of Dental Education for the Wisconsin State Board of Health, summed up the problem quite well. Speaking at the Fourth Annual Conference of State Dental Directors, Dr. Bull said:

"I don't believe that you can win approval of any public health program where there is organized opposition. I mean clever, well thought-up opposition. I think it is possible to beat almost anything."

In the years since this statement was made, antifluoridationists have developed clever political tactics which can play on the fears of ordinary citizens. Increasingly, these tactics have been employed to bring about referendums—to defeat fluoridation. The sad fact is that people can easily be frightened by things which they do not understand and can easily be confused by contradictory arguments.

Fluoridation's Credentials

There should be no mystery about what fluoridation is. Fluoride is a mineral which occurs naturally in most water supplies. Fluoridation is the adjustment of the natural fluoride concentration to about one part of fluoride to one million parts of water. More than 20,000 scientific studies attest to fluoridation's safety and effectiveness in preventing tooth decay.

The history of fluoridation in the U.S. underlines its unique standing as a public health measure copied from a natural phenomenon. In the early 1900's, Dr. Frederick S. McKay began an almost 30-year search for the cause of the staining of teeth which was prevalent in Colorado where he practiced dentistry. Traveling to trace this condition, he found it common in other states, including Texas where it was known as "Texas teeth." In 1928, he announced that these teeth, although stained, showed "a singular absence of decay." He concluded that both the staining and the decay resistance were caused by something in the water. In 1931, the "something" was identified as fluoride.

The Public Health Service then took over to determine precisely what amount of fluoride in the water would prevent decay without causing staining. Years of "shoeleather epidemiology" by Dr. H. Trendley Dean traced the dental status of 7,000 children drinking naturally fluoridated water in 21 cities in four states. In 1943, he reported that the ideal amount of fluoride was one part per million parts of water. This concentration was demonstrated to result in healthy, attractive teeth which had one-third as many cavities as might otherwise be expected—and no staining. Dean, later known as the "father of fluoridation," thus paved the way for public health application of this natural phenomenon.

The next step was to determine whether water engineering could copy nature's amazing dental health benefit. At several test sites, the fluoride concentration of the public water supply was adjusted to one part per million.

One such test was conducted in the neighboring cities of Newburgh and Kingston, New York. First, the children in both cities were examined by dentists and physicians. Then fluoride was added to Newburgh's water supply. After ten years, the children of Newburgh had 58% fewer decayed teeth than those of unfluoridated Kingston. The greatest benefits were obtained by children who had drunk the fluoridated water since birth. Other studies showed that teeth made stronger by fluoride during childhood will remain permanently resistant to decay.

As the evidence for fluoridation piled up, thousands of communities acted to obtain its benefits. By 1975, more than 105 million Americans were drinking fluoridated water. But 70 million other Americans were receiving public water supplies which were not fluoridated—thanks largely to the efforts of poisonmongers.

Opposition to Fluoridation

Since it began, fluoridation has encountered opposition from scattered groups and individuals. Many of them have been associated with the health food industry—which aligns fluoridation with its general propaganda that our food supply is being "poisoned" (see Chapter 5). Chiropractors have opposed fluoridation as an interference with "free choice of health care." Christian Scientists have regarded it as "forced medication" and the John Birch Society has seen it as a "Communist plot."

By the early 1950's, individuals and local groups began exchanging ideas and experiences with each other. A few physicians and dentists became very vigorous in opposing fluoridation and began traveling around the U.S. to appear at court hearings and public meetings. One of them, George Waldbott, M.D., started the *National Fluoridation News*, a four-page newspaper now edited by Mrs. Ethel Fabian of Gravette, Arkansas.

Several national groups have been formed for the sole purpose of fighting fluoridation, but it appears that none of these has achieved sufficient funding to have much impact outside of the communities of their leaders. However, several well-funded national multi-issue organizations have managed to disseminate large amounts of scare propaganda throughout the country. Among them are Rodale Press, the John Birch Society and the National Health Federation.

The early efforts of the antifluoridationists were assisted by the caution and conservatism of many physicians, dentists and other scientists who felt that not enough research had been done for them to take a positive stand. As time went on and data piled up, however, the overwhelming majority of health scientists concluded that fluoridation is safe and effective.

But while scientists were refining and publishing their experiments, the antis were refining and publishing their battle plans. In the mid-1960's, the National Health Federation published An Action Guide . . . On How to Fight Fluoridation in Your Area. Available for 25ϕ , this four-page leaflet details the strategy which can be used in any community where fluoridation is being considered.

"Neutralizing" Politicians

Once fluoridation proponents are known to be active, the leaflet says, antis should immediately send a letter to each member of governing bodies. The letter should emphasize "the most recent evidence" that fluoridation is "harmful." Most important, it should urge the officials to "remain absolutely neutral" by putting the matter to public vote. "When this is done," the leaflet states, "whatever political figures may be concerned are relieved of any and all responsibility in the matter."

This opening blast is designed to neutralize politicians. It aims to arouse doubt about the safety of fluoridation. It also offers an easy excuse for delaying favorable action—while the antis begin their hatchet job on public opinion.

How Poisonmongers Work

The antis' basic technique is *the big lie*. Made infamous by Hitler, it is simple to use, yet surprisingly effective. It consists of claiming that fluoridation causes cancer, heart disease, kidney disease and other serious ailments which people fear. The fact that there is no supporting evidence for such claims does not matter. The trick is to keep repeating them because if something is said often enough, people tend to think there must be some truth to it.

A variation of the big lie is the *laundry list*. List enough "evils," and even if proponents can reply to some of them, they will never be able to

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cover the entire list. This technique is most effective in debates or letters to the editor.

A key factor in any anti campaign is the use of printed matter. Because of this, antis are very anxious to have their views printed in any publications. Scientific journals will rarely print them, but most local newspapers are sympathetic toward the expression of minority viewpoints regardless of whether they are supported by facts. A few editors even welcome the controversy the antis generate—on the theory that it will increase readership.

The aim of anti "documents" is to create the illusion of scientific controversy. Often they quote statements which are *out of date* or *out of context*. Quotes from obscure or hard-to-locate journals are particularly effective. Another favored tactic is to *misquote* a pro-fluoridation scientist, knowing that even if the scientist himself protests, his reply will not reach all of the people who saw the original misquote.

Half-truths are commonly used. For example, saying that fluoride is a rat poison ignores the fact that poison is a matter of dose. Large amounts of many substances—even pure water—can poison people. But the trace amount of fluoride contained in fluoridated water will not harm anyone.

"Experts" are commonly quoted. It is possible to find someone with scientific credentials who is against just about anything. Most "experts" who speak out against fluoridation, however, are not experts on the subject. There are, of course, a few dentists and physicians who oppose fluoridation. However, many of them oppose it on the basis of government action rather than on safety. Curiously, when anti experts change their minds in favor of fluoridation, they sometimes find that the antis keep on quoting their earlier positions.

Innuendo is a technique that has broad appeal because it can be used in a seemingly unemotional pitch. Some antis admit that fluoridation has been found safe "so far," but claim that its long-range effects have "not yet" been fully explored. The waiting game is a related gambit in which antis suggest that waiting a bit longer will help to resolve "doubt" about fluoridation's safety. No doubt, some antis will continue to use this argument for a few hundred more years.

The *bogus reward* is a fascinating technique. Some antis offer large rewards to anyone who will prove that fluoridation is safe. If the wording is not extremely careful, however, the pros can actually collect. In 1965, a California chiropractor offered \$1,000 to anyone who could produce an expert from California "who has done any conclusive research proving the safety" or who could produce documentary evidence that fluoridation is safe. A local dental group assembled a barrage of experts and more

than 100 research reports testifying to fluoridation's safety and effectiveness. When the chiropractor refused to pay, the dental group filed suit and later settled out of court for \$500.

A \$100,000 reward offer has survived for a long time—but a close look will show why. In order to collect, pros must post a bond "to cover any costs which the offerers of the reward might incur if the proof is deemed invalid." The offer does not state who would judge the evidence, but of course the judges would be appointed by the antis themselves. If a suit were to be filed to collect the reward, the court might rule that the offer was a gambling bet which should not be enforced by a court. Such a suit would require at least \$25,000 for the bond and legal fees. Even if it were won, however, there is no assurance that the money could be recovered from the individuals who sponsor the reward. Most of them are elderly and scattered widely throughout the United States and Canada.

Since the scientific community is so solidly in favor of fluoridation, antis try to discredit it entirely by use of the *conspiracy gambit*. The beauty of the conspiracy charge is that it can be leveled at anyone and there is absolutely no way to disprove it. After all, how does one prove that something is not taking place secretly? Favorite "conspirators" are the U.S. Public Health Service, the American Dental Association, the American Medical Association, the Communist Party and the aluminum industry. Apparently, in the minds of the antis, these groups could all be working together to "poison" the American people!

Local promoters are often accused of being in the employ of "vested interests." An individual is rarely accused directly since that could trigger a lawsuit for defamation of character. Instead, a question is asked: "Could it be that Dr. So-and-so is really working for the aluminum industry?" Years ago, the conspiracy gambit would work primarily with the very paranoid. But in the post-Watergate era, it may seem realistic to a wider audience.

"This is only the beginning!" is a related gambit. "First they will add fluoride, then vitamin pills, and the next thing you know it will be birth control pills!" Who "they" are does not need to be specified.

Scare words will add zip to any anti campaign. Not only the more obvious ones like "cancer" and "heart disease," but also more specialized ones like "mongoloid births" and "sickle cell anemia." *Ecology words* are currently in vogue. Calling fluoride a "chemical" (rather than a nutrient) can strike fear in the minds of many Americans who fear we are already too "chemicalized." The fact that water itself is a chemical and the fact that responsible use of chemicals can be of great help to our society will not reassure everyone. Fluoride is also called "artificial" and "a pollutant" which is "against nature." Faced with the fact that fluoridation merely copies a natural phenomenon, the antis reply that "natural" fluoride differs from "artificial" fluoride—a fact as yet undiscovered by scientists.

The "against nature" concept led to an exchange which was reported in the Lincoln, Nebraska *Star*. During the fluoridation bill debate, Nebraska State Senator Richard Proud suggested that God would have fluoridated water if he wanted it so treated. Senator Ernest Chambers answered, "And if He had wanted you to smoke, He'd have put a chimney on your head."

Suggesting *alternatives* is a common tactic. Here the antis propose that the community distribute free fluoride tablets to parents who wish to give them to their children. The suggested program sounds "democratic," but it will not be effective from a public health standpoint. Most parents are not motivated to administer the 4,000+ doses needed from birth through age 12. The plea for alternatives is often made by a "neutral" individual who sounds like he will support an alternative program if water fluoridation is defeated. Don't bet on it. Such advocacy is almost always a propaganda ploy.

Pro-fluoridationists can sometimes turn the tables on the "alternatives" argument by suggesting that unfluoridated water remain available at a special tap for residents who want it. Despite the antis' professed fears, however, such taps get little use. After Lawrence, Kansas, installed one in 1979, for example, fewer than ten people used it regularly. The Lawrence Water Department serves about 64,000 people.

Once fluoridation has begun in a community, antis can resort to the "cause of all evil" gambit—blaming fluoridation for everything that occurred after it started. An example of this tactic, one that backfired on opponents, took place in Cleveland on June 1, 1956. That was the day fluorides were to be added to the city's water supply. That day, the phone calls began—"My goldfish have died."—"My African violets are wilting." —"I can't make a decent cup of coffee."—"My dog is constipated." Although reactions like this would usually be recognized as psychological, this time their nature was beyond question. Last minute problems had delayed the start of fluoridation for a month!

"Let the People Decide"

The antis' most persuasive argument, both to legislators and to the public, is to call for a public vote. On the surface, this appears to be the democratic way to settle the issue. But the antis are dealing from a stacked deck. First, the people who need fluoridation the most—the children—do not vote. Second, it is not difficult to confuse voters by flooding their community with scare propaganda. The average citizen does not have the educational background to sort out claim and counterclaim or to judge which "authorities" to believe. To turn against fluoridation, he does not need to accept *all* the anti arguments—*just one*. The sheer bulk of the controversy is itself likely to arouse doubt in the minds of most voters.

Occasionally, a brave profluoridation group will attempt a referendum as a last resort to overcome the resistance of its local government. But make no mistake about it—the referendum is *primarily* an antifluoridation device. Antis who say, "Let the people decide," may sound as if they wish to use a democratic process to make the decision. But experience in many cities has shown otherwise. If fluoridation wins a referendum, the usual anti response is to work for another one. In a few states where local laws allow repeated referendums on the same subject, fluoridation has been in and out, and in and out again. When this happens, not only do children suffer unnecessary dental costs, but their tax-paying parents pay the high costs of the referendums.

Curiously, studies have shown that referendums can lose even in communities where public opinion favors fluoridation. People will usually go to the polls to vote against whatever they *don't* like. So the crucial factor in many referendums is the ability of proponents to mobilize their supporters.

The value of getting out the vote was never more strikingly demonstrated than in the 1973 referendum in Seattle, Washington. The vote was 115,000 for fluoridation and 49,000 opposed. The key to victory was an unprecedented move by Sheldon Rovin, D.D.S., who was then Dean of the University of Washington School of Dentistry. Two weeks before the election, Dr. Rovin excused students and faculty members from class so that they could participate in a door-to-door campaign. In all, 500 doorbellers saturated the city with their pleas to residents. Person-toperson contact just before the vote worked in Seattle just as it might for any political candidate anywhere—by instructing voters on how to cast their ballots and by giving them a brief opportunity to share their concerns. One homeowner agreed to vote for fluoridation if the canvassers would help him move his television set into the basement.

The Seattle fluoridation forces were extremely well-organized and were very sophisticated politically. They had a broad base of support from community organizations such as unions, the PTA and the Chamber of Commerce. But they also had *no sizable opposition*!

The Poisonmongers

The Devout Anti

Most people who power local and national antifluoridation movements see themselves as saviors of their fellow men. Many of them make opposing fluoridation their single great mission in life. Others include fluoridation among a variety of causes related to health. Antifluoridationists are often active against mental health programs, compulsory immunization and animal research.

Most damaging to the cause of fluoridation are the few antis who are physicians, dentists or others who presumably should be able to judge fluoridation on its merits. Some of them are simply misinformed. Others are alienated for reasons unconnected with fluoridation, but take this cause to get back at the scientific community which they feel has "slighted" them.

What makes a devout anti tick? Three prominent psychiatrists suggested an answer in *Psychodynamics of Group Opposition to Public Health Programs*, an article which appeared in 1960 in the *American Journal of Orthopsychiatry*. Some are motivated by factors of personal power, prestige or gain. Some are driven by great anxieties or hostilities, the sources of which are unconscious. Antis commonly perceive certain health measures as a threat to their "sense of wholeness," and must passionately defend themselves against the "forcible entry" of any "foreign body" or "foreign agents"—whether this be a vaccination, an interracial contact or a wave of immigrants from overseas. Any of these is apt to be felt as a threat to their "whole way of life."

It is important to realize that a devout anti cannot be dissuaded by facts.

The National Health Federation's Cancer Scare

The most active anti in America today is John Yiamouyiannis, Ph.D. A biochemist by background, he was hired as NHF "Science Director" in June 1974 for the purpose of opposing fluoridation (see letter on next page). Since that time, he has written several reports and has traveled around the country to give speeches, testify at hearings and meet with legislators. NHF attributes the defeat of the Los Angeles referendum and many others to his vigorous leadership. In March 1980, he left NHF and set up an antifluoridation organization of his own.

Yiamouyiannis is often accompanied by Dean Burk, Ph.D., another biochemist. Burk is a retired employee of the National Cancer Institute, the highly respected branch of the U.S. Public Health Service which

The National Health Federation

212 WEST FOOTHILL BOULEVARD

POST OFFICE BOX 688

MONROVIA, CALIFORNIA 91016

358-1155

November 1, 1974

Dear Friends,

FLUORIDATION IS LISTED AS OUR NO. 2 PRIORITY. Our intentions have been handicapped by limited funds and staff.

However, for several months plans have been in preparation for mounting an effective <u>national</u> campaign which could break the back of promoters' efforts to fluoridate more American cities.

We can reverse the trend:

On June 1st DR. JOHN YIAMOUYIANNIS was hired by the Federation to head such an effort. Our close association with him in the intervening weeks convinces us that he is the right man for the job. He is a totally dedicated scientist with impressive credits and a fighting heart.

Since this program represents a commitment not budgeted, it must be sustained through additional gifts. It must not draw upon funds being used for programs already under way. We now have the staff to do the job, and with adequate funding we can mount an all out effort to achieve our goals.

We promise to fight until victory is won. Will you help to make this effort a winning one? Your generous contribution at this time can insure the success of another vital NHF program.

Sincerely, Charles S. Crecelius

Charles I. Crecelius, President

CIC:hy

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The Poisonmongers

evaluates proposed cancer treatments to see if they work. But in recent years, Burk has been a major promoter of the worthless cancer remedy, laetrile.

Yiamouyiannis and Burk claim that fluoridation causes cancer. But their claim is based upon a *misinterpretation* of certain government statistics. In true anti fashion, they compared cancer death rates in fluoridated and non-fluoridated cities. But they failed to consider various factors in each city (such as industrial pollution) which are known to raise the cancer death rate. When the National Cancer Institute did a *genuine* comparative study, it found *no* link between fluoridation and cancer. Undaunted, Yiamouyiannis and Burk charged NCI with a "coverup." They were joined in this hoax by Congressman James Delaney, who is an anti of long standing.

Curiously, the National Health Federation has itself been concealing information about fluoridation. In 1972, NHF granted \$16,000 for a study to the Center for Science in the Public Interest, a group founded by former associates of Ralph Nader. While it was under way, NHF proudly announced that the study would "put the fluoride controversy into proper perspective." When the study came out *favorable* to fluoridation, however, NHF suddenly became silent about it.

Don't Be Misled

As a public health measure, fluoridation is unusual in several ways. It is a copy of a naturally occurring phenomenon. It is supported by libraries full of articles which document its safety and effectiveness—more so than any other public health measure. It is supported by a variety of health, scientific and other civic groups which could hardly be expected to agree on any other single measure. But most significant, it is the only health measure which is often put to public vote.

If you live in a community with fluoridated water, consider yourself lucky. If you do not, don't let the poisonmongers scare you. Fluoridation is a modern health miracle.

Recommended Reading

A Two-Part Report on Fluoridation, Consumer Reports, July, August, 1978. (Available for 50¢ from CU Reprints, Consumers Union, Orangeburg, NY 10962.)

Fluorides and Dental Caries, edited by Ernest Newbrun, D.M.D., Ph.D. The Tooth Robbers, edited by Stephen Barrett, M.D., and Sheldon Rovin,

D.D.S. (Available for \$6.95 from George F. Stickley Co., 210 West Washington Square, Philadelphia, Pa. 19106.)

"The Power of Positive Greed"

BY REV. LESTER KINSOLVING

220

Does Faith Healing Work?

Mary Vonderscher of Burbank, California, thought it did. She felt cured of cancer of the spine, she said, even though doctors had thought her case was hopeless. Appearing on an Oral Roberts TV spectacular in mid-1955, Mrs. Vonderscher gave a glowing testimonial. In January, 1956, relatives of hers in Indiana saw a re-run of this program—just three days before they went to California for her funeral.

Wanda Beach, another believer, was a 37-year old diabetic from Detroit. In 1959, after telephoning her mother that Roberts had "completely cured" her, she threw away her insulin. And died.

Though the faith of these two ladies did not appear to heal them, it is not difficult to understand it. Sick people are prone to reach desperately for hope—especially when it is presented in a convincing way. And Oral Roberts could be quite convincing. When he rolled his mighty baritone into overdrive and howled, "HEAL LORD!" neither the Almighty nor the ailing appeared able to resist him. "DO YOU FEEL HEALED?" he would bellow—as if anyone submitting to such a scenario would dare to say no!

Roberts' enthusiasm for his work was unbounded. He moved into the big time with the skilled coaching of J. L. White, the same publicity expert who launched ultra-right wing anti-Communist Christian crusader Billy James Hargis.

The Jesuit magazine America, in a critique of Roberts entitled Faith Healing over T.V., noted: "There is certainly a reasonable doubt that these programs are in the public interest. Of their very nature, they play on the hopes and fears of the credulous and ignorant. There is no positive proof that some of the 'cures' are not rigged. At any rate, standard medical treatment seems to be flouted. We can wonder how many, viewing such programs in their homes, are impelled to neglect ordinary medical treatment."

Nobody knows how many. It is not customary for faith healers to keep medical statistics.

In 1966, Roberts began a rather spectacular transition from Pentecostal Holiness to Methodist—leaving behind the faithful who had launched his healing ministry with many thousands of their dollars. He stopped broadcasting in May 1967. The following year he joined the Boston Avenue Methodist Church in Tulsa, Oklahoma. Although he had previously been quoted as saying: "I consider Hollywood and all its works unclean," in March, 1969, he reappeared on TV—in Hollywood.

His new programs are straight evangelism—a Sunday series plus quarterly prime time specials—all broadcast from the same unclean Hollywood. He is also owner and President of Oral Roberts University, whose 500-acre campus is located in Tulsa. ORU's basketball team, one of the finest money can buy, is apparently a high-priority item. In a *Sport* magazine article, basketball player Dana Lewis told what happened when he wanted to transfer to the University of Tulsa: "When they heard I was thinking of leaving, one of the vice-presidents of ORU got in touch with my mother, who is very religious. He said he had just talked with the Lord and He'd said it was His will that I stay at ORU."

According to Roberts, God told him to build Oral Roberts University in order to "take His healing power to people all over the world." Thirty "healing teams" are "starting to scatter over the earth," he wrote recently. Another construction project "ordered directly by God" is the City of Faith medical center, begun in 1978 just south of the ORU campus. Visitors to this \$250-million complex will be able to enter by walking between 60-foot bronze castings of hands joined in prayer. The planned facilities include a 60-story-high clinic, a 20-story research facility and a 30-story, 777-bed hospital. Indicating that God told Roberts "not to let the City of Faith get into the hands of the money lenders," the Oral Roberts Evangelical Association has been soliciting his "prayer partners" on a regular basis.

"From the beginning," said Roberts in a fund-raising letter, "the devil has violently opposed the City of Faith. He doesn't want prayer and medicine joined under [His] loving care"—a reference, perhaps, to the Tulsa Hospital Council's lawsuit to block opening of the hospital on the grounds that Tulsa already has too many unused hospital beds. God also directed him, Roberts added, to offer his prayer partners a swatch of cloth "to touch and hold where they need a miracle." For added effectiveness, other solicitations have offered an anointing oil, a prayer plaque, a prayer rope and a Christmas Star. "It seems God never gives me much money in advance to pay for the construction," Roberts explained in another letter.

Kathryn The Great

After Roberts shifted from the healing circuit to Hollywood, his place was immediately taken by Kathryn ("The Great") Kuhlman, a spectacular successor to the late Aimee Semple McPherson. Kathryn's Friday morning services jammed the spacious First Presbyterian Church in Pittsburgh. When I covered one of them, I saw busloads of people from seven states.

Kathryn skipped onto the stage, her golden sheath dress, red hair, pearly teeth and blue eyes all glistening in the spotlights. For five hours without a break—this dynamic woman was on her feet preaching, praying, leading hymns, laying on hands and cheerleading, for God as well as

every one of the hundreds who announced that they had been healed. As the healed came forward (often healing presumably took place en route from seat to platform), Kathryn would walk with them or direct them:

"Bend down, honey (and prove your arthritis has vanished)." Or, "Run down the aisle and show everybody you're healed!" Loudly thanking the Holy Spirit, Kathryn would clutch each miracle recipient—and then push him so he fell into the arms of a ready (and agile) assistant.

When the pace of miracles slackened, Miss Kuhlman would give The Spirit a nudge. Beaming those beautiful eyes heavenward, she would become psychic. "Someone in the balcony has just been cured of asthma!" Or, "There is someone who has just recovered his hearing!" (At this point, two elderly men jumped up, waved their earphones madly and shouted that they were no longer deaf.) At another point, Miss Kuhlman cried out: "I can feel it! Someone in the rear needs help, because he is wearing a truss!" (But nobody responded.)

Kathryn was advertised as "an ordained Baptist minister." But during an interview, she admitted that she had no theological education prior to receiving "honorary recognition" from something called "Evangelical Church Alliance, Inc.," of Joliet, Illinois. Her formal education ended after two years of high school in Missouri when her father died. At age 16, and looking better than Susan Hayward, she persuaded a group of Baptist deacons in Twin Falls, Idaho, to let her fill a vacant pulpit. One of the deacons was sufficiently sophisticated to call the local press photographer. Her first scheduled sermon jammed the church to overflow.

While much of her oratorical style and humor was pure corn on the cob, Miss Kuhlman was much smarter than most faith healers. Instead of ignoring or attacking the medical profession, she used it—knowing that there are some fundamentalist M.D.'s who will "certify" miracles without checking up on them afterward. One such doctor is Martin Biery, M.D., a retired surgeon from Garden Grove, California. During nine years of sitting regularly on Kathryn's platform, Dr. Biery saw dozens of "miracles" which he had not bothered to research.

Why not?

"I guess it's because of my faith in God and my trust in Him and my belief in Kathryn as a vessel of His that I don't worry about it. I feel, let the Lord take care of it."

A Troubled Year

The year 1975 produced a sea of troubles for Kathryn. First, William Nolen, M.D., a surgeon from Minnesota, exploded her certification gim-

mick in his book, *Healing: A Doctor in Search of A Miracle*. Dr. Nolen, who is not a Fundamentalist, was able to record the names of 25 people who were "miraculously healed" by Kathryn at a service in Minneapolis. When he followed up these cases later, he found among other things that one lady with Hodgkin's disease had been announced by Kathryn as cured of lung cancer—but the Hodgkin's disease remained unaffected. Another woman with cancer of the spine had thrown off her brace and followed Kathryn's joyful command to run across the stage. The following day her backbone collapsed and four months later she died. Overall, not one patient with organic disease had been helped.

Dr. Nolen's disastrous disclosures were followed by an internal explosion which was picked up by *People* magazine. Paul Bartholomew, Kathryn's former personal administrator, filed a \$430,000 damage suit. Bartholomew, who said he had been paid \$2,500 per week in commissions plus a \$15,000 annual salary, charged Miss Kuhlman with breach of contract.

At the same time she fired Bartholomew, another Kuhlman mainstay, pianist Dino Kartsonakis, was replaced. Dino disclosed that the faith healer's announced income from the Kathryn Kuhlman Foundation (\$25,000 a year) was augmented by a "walk-in vault" in the basement of her suburban mansion near Pittsburgh which contained more than \$1 million worth of jewelry and another \$1 million in art works. ("As God is my judge," Kathryn told this writer, "that isn't so. You're perfectly free to visit and inspect my home.")

Los Angeles magazine published an even more devastating exposé. For it was in Los Angeles that Kathryn taped her syndicated TV shows—and packed the Shrine auditorium.

"EACH MONTH, WHEN KATHRYN KUHLMAN HITS TOWN, THE LORD MAKES THE LAME TO WALK, THE DEAF TO HEAR—AND THE COFFERS TO SWELL," headlined a story by Jeanie Kasindorf.

"It isn't my ministry, she says, He has given everything . . . I have actually given my life! (A long pause.) My body!"

Writer Kasindorf concluded: "Now that, I say to myself, is a sermon that Burroughs Waltrip, Jr., would love to hear. Because Burroughs Waltrip last saw his father in 1936 when he was eight years old, when his father ran off with a lady evangelist named Kathryn Kuhlman."

Kathryn The Great managed to recover from this scandal, which disintegrated her fast-growing Denver Revival Tabernacle in 1936. In 1970, during an interview, I asked her: "Does the name Burroughs A. Waltrip mean anything to you?"

"How did you know?" she gasped. "He was the best-looking guy that ever was!" But "he was divorced and I had to choose between him and my work."

Ever since the worship of Venus, the sex-and-salvation formula has been achieving spectacular results—but hardly if the sex goddess is married to a handsome and virile man. During a telephone interview, Miss Kuhlman recalled that the last time she saw Burroughs Waltrip was in the Los Angeles railroad station in 1938. "He told me if I got on that train, I'd never see him again," she said.

Despite these shocks, Kathryn carried on her work. She seemed absolutely tireless and had an iron will and a positively hypnotic charm. She settled out of court with ex-administrator Bartholomew for an undisclosed amount. "It's much less than he asked for," she told me. "I found he was writing a book called *The Late Great Kate*. I am very much alive!" Then she added: "You reporters seem to know just about everything. But I love you just the same!"

In December, 1975, Kathryn entered a Tulsa, Oklahoma, hospital for open heart surgery. Though she survived the operation, she died on February 20, 1976.

The Power of Positive Greed

The financial successes of Oral Roberts and Kathryn Kuhlman have spurred a horde of imitators. Two of the best known are Asa Alonzo Allen (A. A. Allen of Miracle Valley, Arizona) and Frederick J. Eikerenkoetter II ("Reverend Ike" of Harlem's United Church Center).

Allen, who bore a striking resemblance to the late zany bandleader Spike Jones, died on June 11, 1970, in the Jack Tar Hotel in San Francisco—of what his Miracle Valley associates solemnly announced as: "Apparently a heart attack." But U.P.I. subsequently reported that according to City Coroner Henry Turkel, faithhealer Allen died of "acute alcoholism and fatty infiltration of the liver."

A. A. Allen managed to survive several less serious crises. After switching from Methodist to Pentecostal as a boy, he was unfrocked by the Assemblies of God after being arrested for drunken driving in Knoxville, Tennessee. In another crisis, Allen settled out of court after being sued for \$500,000 by the Freethinkers of America because he said their teachings "coincide perfectly with the methods taught by Communists."

On occasion, Allen's assistants would exclude newspaper reporters from his healing services, even as he furiously denounced the press. In Cleveland, *The Plain Dealer* exposed the fact that Allen had been charged with drunkenness in Laguna Beach, California, and in Las Vegas. In 1962, Allen filed suit for divorce from his wife Lexie, asking the court to stop her from filing insanity proceedings against him—for the third time.

But while referring to himself as "The World's Most Persecuted Preacher," Allen made a statement which apparently became a creed to Reverend Ike: "As far as I am concerned, those who die in poverty, die in shame."

Rev. Ike, a virile clotheshorse of the Liberacean school of dress, elaborates upon this theme in his nationwide broadcasts and crusades—as well as in Harlem's Palace Auditorium. He regularly fills all 5000 seats of this auditorium, while proclaiming what *Time* magazine diagnosed as "The Power of Positive Greed."

Screams Rev. Ike to his ecstatic flocks: "I can love the Lord a lot better when I've got money in my pocket! Bless money! God is money in action! Now I'm about to pray the prayer of success and prosperity. And as I pray, I'm going to receive the evening's offering. I don't want everyone to give—only those who see themselves as having greater prosperity . . . Hold those bills high! I want everyone to see your faith!"

According to an article distributed in 1976 by the Los Angeles Times News Service, Ike's Church owned 16 Rolls Royces and six American residences for Ike's use.

Complications

Physicians recognize that the power of faith may affect the condition of sick people. But such faith can work two ways. Although healers can "really give you a mental lift," there are other reactions which the faithful can have. Believers who are not helped may blame themselves. They may become sicker or severely depressed by such contemplations as: "Faith always heals; I'm not healed; I'm being punished! What have I done wrong? What's wrong with me?"

The medical profession does not believe that "faith healing" can cure people who have *organic* disease—that is, disease which changes the structure of parts of the body. After two vigorous years of tracking down "miracles," Dr. Nolen did not find a single one.

When Nolen looked closely at the work of Filipino "psychic surgeons," he found that all used sleight of hand to create an illusion that surgery was being performed. Animal parts or cotton wads soaked in betel nut juice (a red dye) were palmed and then exhibited as "diseased organs" that had been removed from the patient's body.

Whether a healer believes in himself (as most do) or is an outright faker, many people will appear to get symptomatic relief from his attention. Many diseases are *functional*, wherein emotions play a large part in causing symptoms. Functional ailments can sometimes be relieved by the ministrations of a faith healer—or for that matter by the reassurance of a medical doctor or psychiatrist. The big problem with faith healers of all types is that they do not know their limitations. Untrained in medical diagnosis, they rarely even try to distinguish between those cases they may be able to help and those which are beyond their ability.

In some cases, too much faith can be lethal:

—In Toronto, potential faith healer Mark Cowen explained to a coroner's jury that he had hoped to use his 20-year old wife as an exhibit of a "miracle cure" and had thrown away her insulin.

—In Barstow, California, in 1973, Mr. & Mrs. Lawrence Parker followed the advice of a visiting evangelist to stop giving insulin to their 11-year old son, Wesley. When the boy died as a result, the Parkers and 200 other people attracted national attention by refusing to allow burial for six days—because, they assured everyone, the evangelist had said resurrection was imminent. Subsequently found guilty of manslaughter, the Parkers were placed on probation with a requirement that they consult with a psychiatrist.

---The Reverend Jim Jones, who persuaded more than 900 people to follow him to oblivion in Guyana, practiced faith healing in Indianapolis before moving to northern California. One of his converts was Timothy Stoen, Assistant District Attorney of Mendicino County, who wrote to me several years ago:

Jim has been the means by which more than 40 persons have literally been brought back from the dead. When I first came into the church, I was the conventional skeptic about such things. But I must be honest; I have seen Jim revive people stiff as a board, tongues hanging out, eyes set, skin graying and all the vital signs removed.

Stoen later broke with Jones—but not before being appointed to a state commission by California Governor Jerry Brown. Stoen's son, however, died in the Guyana massacre.

—In Van Nuys, California, in 1954, school teacher Cora Louise Sutherland died of tuberculosis after having exposed thousands of school children to the disease—because she had refused, as a Christian Scientist, to have an x-ray examination. Instead, according to *TIME* magazine, she resorted to a Christian Science practitioner who charged her \$65 a month to "treat" her with prayer and readings from Mary Baker Eddy.

The "Science of Prayer"

Mary Baker Glover Patterson Eddy was a native of New Hampshire. She was an ardent admirer and disciple of Phineas Parkhurst Quimby, a faith healer and "metaphysician" from Maine. Her first husband, Gilbert Glover, died of fever. Left pregnant, penniless and very sick, she proceeded to marry her dentist, Daniel Patterson, whom she later divorced on charges of desertion. Finally she married Asa Gilbert Eddy, ten years her junior, a mild-mannered man who served her devotedly as she expanded the movement which she called "Christian Science."

In 1882, husband Asa Eddy died of valvular heart disease—but Mrs. Eddy called in the press to announce that he had been "murdered by arsenic mentally administered by malicious mental practitioners" whom she identified as three of her alienated pupils.

Among Mrs. Eddy's teachings was the idea that dead individuals continue to live "even though unseen by persons on our planes of existence." She also taught that prayer could heal, even at considerable distances.

According to a recent publication of the Christian Science Publishing Society, "Every student of Christian Science has the God-given ability to heal the sick." Training of practitioners, which takes all of two weeks, is based on questions and answers from *Science and Health*, one of Mrs. Eddy's books. After three years of full-time practice, a practitioner may apply for six more days of instruction to qualify as a teacher. The January, 1979, *Christian Science Journal* lists about 3,900 practitioners and teachers who are licensed by the Mother Church (of Boston) to do healing.

Citation of the Cora Sutherland case in my nationally syndicated column evoked a number of protests. One came from Rollin E. Mayer of the Christian Science Committee on Publications for Indiana—whose function, according to the *Yearbook of American Churches*, is to correct "in a Christian manner, impositions on the public in regard to Christian Science."

Said Mayer: "Mr. Kinsolving . . . refers in a wholly misleading way to Christian Science. It seems unnecessary therefore to state that Christian Scientists are law-abiding and responsible members of the community

. . . They report all communicable diseases . . . any Christian Scientist known to be suffering from a communicable disease would naturally report it."

My column had not mentioned that three of the nation's best-known Christian Scientists were the Watergate figures, H. R. Haldeman, John Erlichman and Egil Krogh. Nor had it mentioned the case of Christian Scientist Dorothy Sheridan who was found guilty by a Massachusetts

jury of contributing to the death of her five-year-old daughter. In 1967, when the girl contracted pneumonia, Mrs. Sheridan reported it all right but not to medical authorities. She reported it to a Christian Science practitioner, who prayed—while the child died.

In 1977, 16-month-old Matthew Swan died of meningitis after a total of twelve days of care and reassurance by two Christian Science practitioners. Appearing on the Phil Donahue TV show two years later, his parents were asked why the child's illness was not reported to state health authorities as required by law in Michigan. They replied that no one had made the diagnosis. Devout believers, they did not want to face possible abandonment by the church if they sought a medical opinion. Now disillusioned, the Swans are campaigning for state laws to make Christian Science treatment of a child a reportable situation. Within three months of their televised appearance, they collected allegations of 75 deaths and 95 serious injuries to children of Christian Scientists.

One person who contacted the Swans is 43-year-old Paul Michener of Waynesville, Ohio. He wrote:

At age nine, my left leg was burned in a gasoline fire (1st to 3rd degree). Although the area burned was not too large, from the ankle to just above the knee, it became a lengthy trauma . . . I was 15 years old before the injury had grown closed with scar tissue. In the meantime, the knee became stiff and the pain was beyond description. I was bedridden for about two years and walked on crutches for another two and a half years. Today I walk with a four inch limp, a curved spine and some recurring back and hip pain . . . I have undergone three surgical operations in the last four years trying to patch up the damage done by this insidious philosophy. I find it neither Christian nor a science . . . Today when I look at our nine-year-old daughter, I ask how could any "loving" and "religious" parent put his child through such an experience.

On October 19, 1972, the Connecticut State Department of Health was told of a suspected polio outbreak at the Daycroft School, a Christian Science boarding and day school in Greenwich. The report came not from the school authorities but from a physician in Greenwich. Investigation by Dr. DeWayne Andrews of the Health Department revealed that the first child had become ill on September 29. When tests confirmed the diagnosis of polio, Dr. Andrews ordered a quarantine. He also ordered mass immunization of the 128 students and 35 faculty (a number of whom complained that this compromised their Christian Science faith). Eleven youngsters suffered varying degrees of paralysis. Five of them were sent home—where they could expose others to this terrible disease. The other victims were sent to the school infirmary—where, it was explained to Dr. Andrews: "A compound fracture can be healed with 30 minutes of prayer."

Dr. Andrews contacted another Christian Science school, Principia, in St. Louis, to discuss the possibility of a similar epidemic. He recalls: "They wouldn't even discuss the subject." Neither would the national headquarters of the Committee on Publications, at Christian Science's Mother Church in Boston, when I telephoned to inquire.

The Christian Science headquarters also refused to disclose either its financial records or its membership figures. I suspect, though, that Church membership is on the decline—that today's young people are simply not buying its doctrines. In Malden, Massachusetts, stands the First Church of Christ Scientist, founded by Mary Baker Eddy herself. Built to seat 600, it had just 35 people present on Sunday morning, June 3, 1973. Only three of these looked under 60 or 70—a virile young (paid) soloist and two obviously interested young girls peering at him from the front row.

Using volunteer reporters, I was able to survey all seven Christian Science Churches in Washington, D.C., at 11 A.M. on Sunday, January 26, 1976. Total seating capacity is more than 2,500. Attendance was about 500, with fewer than 25 appearing to be under age 60.

During the past ten years, the number of practitioners listed in *The Christian Science Journal* has declined more than 20 percent and the number of churches has decreased by more than a hundred. When a church goes defunct and is sold, where does the money go? Allison Phinney, at the denomination's \$70 million headquarters building in Boston, said he didn't know. But Catherine Chance, of San Francisco's Northern California Committee on Publications, said she believes that all such proceeds revert to the Mother Church in Boston.

The Mother Church's self-perpetuating five-man Board of Directors conceals the finances from both the public and the contributing membership. It has been revealed, however, that *The Christian Science Monitor* lost \$5 million in 1972—while in 1973, for the first time, the Board of Directors elected a foreign Treasurer, Marc E. Engeler.

Mr. Engeler is a Swiss banker.

Recommended Reading

Give Me That Prime Time Religion, by Jerry Sholes (an exposé of Oral Roberts).

Healing: A Doctor In Search of A Miracle, by William Nolen, M.D.

The Genuine Fakes

Pollution remains the Number One issue in the mind of the public . . . Business is beginning to see profit in supplying more natural products . . . we can exert a pincer effect—the fear of pollution on the one side and the promise of profit on the other.

> - Robert Rodale Prevention Magazine, 1971

There has not been one case of illness in America which can be attributed to a scientific agricultural procedure. In contrast, in countries where "organic" fertilizers (such as human waste) are used, food poisoning from disease organisms is quite common.

BY

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc. In these days of high prices, you certainly don't want to waste money when you shop for food. Foods labeled "organic," "organically grown" or "natural" usually cost more than "regular" foods. Sometimes they cost twice as much—or more.

Are they worth their extra cost?

Let us begin our inquiry by asking what the "organic" labels mean. Curiously, it turns out, there are no exact industry standards. Even promoters of the organic food industry are aware of this problem. In December 1972, New York State Attorney General Louis Lefkowitz held a public hearing on the matter of organic foods. Robert Rodale, one of the nation's foremost organic and health food promoters, testified as follows:

When the organic idea boomed in popularity several years ago . . . we became aware that misuse of the word organic was becoming a problem. We knew that some dealers in health foods were using the word without any intention of having it mean that foods so labeled were produced without the use of synthetic fertilizers or poisonous pesticides . . .

After describing how Rodale Press executives arrived at the definition which they now promote, Rodale presented the following:

Organically-grown food is food grown without pesticides; grown without artificial fertilizers; grown in soil whose humus content is increased by the additions of organic matter; grown in soil whose mineral content is increased by the applications of natural mineral fertilizers; has not been treated with preservatives, hormones, antibiotics, etc.

Let's look closely at the components of this definition to see if they make sense.

"Without Pesticides"

This part of the definition relates to the fear that many people have that pesticides may threaten their health. Organic promoters *imply* two things: (1) that the use of pesticides is bad and dangerous; and (2) that foods grown under "organic" conditions will contain no pesticides.

The Rodale Press definition does not actually state that organicallygrown foods are *free* of pesticides. But it is clear that many retail sellers of the products make that claim. Vincent White, Confidential Investigator for the New York State Bureau of Consumer Frauds and Protection, spoke on this point at the Lefkowitz hearing:

- Q. Mr. White . . . in the course of your official duties, did you make a survey of health food stores selling organic food in and around the area of New York City?
- A. Yes sir.
- Q. . . . visiting approximately 25 stores . . . in the guise of a customer who is interested in learning why you should purchase organic food?
- A. That's correct, sir . . .
- Q. Did you find a pattern of representation existed . . . as to the virtues of organic food?
- A. Yes, sir, the general consensus was that they were pesticide free . . .

Dr. Elmer George, Director of the New York State Food Laboratory, was also a witness at the hearing. Dr. George reported that 17 out of 55 (30%) "organically" labeled products purchased at health food stores by government agents contained pesticide residues. This contrasted with an average pesticide incidence of only 20% in foods tested in his laboratory which had not been labeled organic.

Leaders of the organic food industry know that their products contain pesticide residues. When questioned, they will admit this, as did Rodale Press nutritionist, Dr. Mark Schwartz:

- Q. You are going on the assumption . . . that there are no chemicals in organic foods?
- A. It is almost impossible to come up with foods that do not contain pesticides.

Thus, if you buy "organic" labeled foods in the hope of avoiding pesticides, you are likely to be unsuccessful. But don't let this trouble you. Government agencies keep watch on our food supplies to be sure they are safe to eat. The pesticide content of today's food is not a threat to our health. The amounts of pesticides found in our foods are *extremely* small, They would not even be detectable if it were not for the exquisite sensitivity of modern measuring equipment which can measure some substances in parts per *trillion*! Moreover, it is clear that pesticides have a greater margin of safety than many other substances found naturally in foods which you and I eat all the time without worrying about them.

"Without Artificial Fertilizers"

Organic promoters suggest that natural fertilizers are better able to nourish plants and that they produce more nutritious foods. They also suggest that natural fertilizers contain, or might contain, some ingredient found in nature but lacking in artificial fertilizers. These ideas are good sales gimmicks, but nothing more. The exclusion of "artificial" fertilizers and the inclusion of "natural" fertilizers has no logical basis. From the plant's point of view, it makes no difference where its food comes from. Chemicals are taken up and used by the plant only in their inorganic chemical state no matter whether they are fed to the plant in manure, compost or manufactured fertilizer. All the plant cares about is whether it has enough food to grow. If it does, it will grow. If it does not, it will not grow.

Experiments conducted at the Michigan Experiment Station for ten years, at the U.S. Plant, Soil and Nutrition Laboratory at Cornell University for 25 years, and at the British Experimental Farm for 34 years, all indicate that there are no differences in major nutrient content whether foods are grown on soils fed with animal or synthetic plant foods. The amount of vitamin C in apples, for example, cannot be made equal to that of oranges by the addition of any amount of fertilizer. This is because nutritional factors (other than minerals) are controlled by genes (the plant's heredity).

Fertilizers may influence the mineral composition of plants. The iodine content of a plant, for example, may vary with the iodine content of the soil, and the same may be true of other elements such as zinc, cobalt and selenium.

The fact that mineral content of soil can affect mineral content of its plants encourages the organic food industry to suggest that its recommended fertilizers are the best way to supply minerals. "After all," they say, "we return to nature what belongs to nature—animals which eat plants nourished by soil return the elements to the soil via their manure—nothing is lost." This, however, is faulty reasoning. If a soil is deficient in a nutrient, use of manure from animals fed from that soil is the surest way to guarantee that the nutrient will remain missing. The best way to insure proper plant growth is to determine by analysis what the soil needs and to add the needed chemicals. Manure is unlikely to give a deficient soil exactly what it needs.

At the New York State hearing, Dr. Schwartz was asked whether Rodale Press publications generally take the position that organic foods are nutritionally superior to regular foods. He replied, "I don't think that organic foods are any different from the foods that we ordinarily eat. The thing we are talking about is the method of producing these foods."

Even if its leaders publicly deny making claims of nutritional superi-

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ority, however, there is no question that the industry as a whole suggests to its customers that its methods nourish plants better and therefore will nourish people better. To quote further from investigator White's testimony:

- Q. Did you find a pattern of representation existed among the stores which you visited as to the virtues of organic food?
- A. Yes, sir, the general consensus was that they were . . . more nutritious and that they would be healthier in the long run if consumed by an individual.
- Q. Were any examples given to you of what would happen if you purchased organic food in regard to illness, was that stressed?
- A. Yes, there were a few establishments who told me that if you are a little heavy, and you eat organically grown food, you might lose some weight or might be free of diabetes.

"Additions of Organic Matter"

The implication suggested here is that organic matter *alone* conditions soil best for plants. It has long been standard agricultural practice to plow crop residues and "green manuring crops" back into the soil. This makes the soil easier to work and can improve the seed-bed for the coming crop. This practice works well in combination with the use of fertilizers. Composts and animal manures may also help the physical characteristics of the soil. In fact, there are times when the so-called "mulching" process is needed and highly advantageous. Scientific farmers can easily determine and use whatever their soil needs. [Incidentally, plants can be grown "hydroponically," with no soil at all, with just chemical nutrients added to water. This is not yet practical for large-scale farming, but it highlights the lack of logic in the above "organic" myth.]

Low availability and high distribution costs make it clear that the world cannot rely upon animal-produced fertilizers to grow its food. It takes 20 pounds of manure to supply the same amount of nutrients as one pound of synthetic fertilizer. More often than not, the wastes from cows, horses and chickens accumulate at great distances from food-growing areas. It is expensive to collect and haul manures great distances and then spread them on the fields.

Manure has another disadvantage. It can contaminate plants with Salmonella germs which can cause serious diarrheal illness (dysentery). Manure can also spread intestinal parasites.

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"Not Treated with Preservatives, Hormones, Antibiotics"

Here, the organic and health food promoters suggest that *all* "food additives" are "bad." But they do not tell you that without the use of additives, it would not be possible to feed large populations. They also omit mention that preservatives have been used for centuries to prevent foods from spoiling. The salting of meat and the pickling of cucumbers are familiar examples. Hormones are present naturally in *all* animals and plants. Antibiotics are not used to treat foods, but are valuable in controlling diseases of farm animals—some of which diseases are dangerous to humans. Some antibiotics which are fed to farm animals travel through their intestines without getting into their meat. Those that do get into the meat are destroyed by cooking.

Calcium propionate, which is used to prevent bread from getting moldy, offers another penetrating illustration of the health food industry's lack of logic about additives. Calcium propionate is normally produced as well as used in the human body. Leaving it out of bread will do the consumer no good whatsoever. It will, however, result in a lot of moldy bread being thrown in the garbage—at a time of food shortages and high prices. (And, as Dr. Herbert points out in Chapter 5, people who eat a Swiss cheese sandwich consume enough calcium propionate from the natural cheese to preserve two loaves of bread.)

These inconsistencies should make it clear that the health food industry's sweeping general attack on food additives does not make sense. The only proper way to evaluate food additives is to do so individually. Scientists do this, of course. FDA scientists, for example, set careful tolerance levels in foods and conduct frequent "market basket" studies wherein foods from 18 regions of the United States are purchased and analyzed.

"Etc."

The term "etc." is not defined. Presumably, this allows the definition to be expanded at will to keep pace with the imagination of "organic" producers. As Investigator White indicated at the Lefkowitz hearing, the "organic" label is not confined to fruits and vegetables:

- Q. Did any specific food example stick in your mind, Mr. White?
- A. Yes, the eggs. I asked in several establishments why it is necessary to charge the inflated price for the eggs and I was told that these eggs were produced by organically grown chickens, that these chickens were free of hormones and

they were allowed to roam free with the rooster and that's the reason why they had to charge the prices they are charging for the eggs.

- Q. Did you come upon a store that was selling fish?
- A. Yes . . .
- Q. Did the man selling fish tell you why it was organic?
- A. Yes, he claimed that it was caught in the pollution-free, mineral-rich Atlantic Ocean.
- Q. Did he have a sign to that effect, Mr. White?
- A. Yes, he had a sign. I took a picture of that sign after interviewing that gentleman in the store.

Tlaste

There are three factors which affect the taste of fruits and vegetables: (1) their genetic make-up; (2) how ripe they are when harvested; and (3) how fresh they are when eaten. "Organic" food advocates claim that their products taste better. They claim that since their produce comes from small farms, it is more likely to be sold locally in fresh condition. They also claim that supermarket produce is bred for shipping and keeping qualities rather than for flavor.

These claims were scientifically tested by research at the University of Florida. In this experiment, 20 men and women, ages 18 to 60, met several times a week for three months to compare 25 "health" foods with their supermarket cousins. Color, flavor, texture, odor and general acceptance were rated. None of the "health" foods was found to be superior on the basis of general acceptance. However, many of the regular foods were rated as better for color, flavor, texture and general acceptance. Regular foods that were scored higher than health foods by the panel included dried apples, apple juice, applesauce, cashews, cereal, Swiss cheese, coconut, corn chips, ice cream, mayonnaise with tomato, peanut butter, sesame chips and tomato juice. The only health food qualities which were scored higher than those of regular foods were the odors of apple butter and pizza and the color of ketchup.

It is, of course, possible that some batches of "organically grown" foods will taste better than some conventionally grown foods. The point to keep in mind about this, however, is that superior taste will not be the result of organic methods, but of better heredity, better harvesting time or quicker marketing time.

Cost

Many studies have shown that foods labeled "organic" cost more than conventionally grown foods. In 1972, for example, the U.S. Department

Comparison of Regular and "Organic" Food Prices				
	SUPERMARKET		HEALTH	NATURAL
	"Regular"	"Organic"	nic" Food	Food
	Department	Department	Store	Store
Canned apple juice, qt.	.29	.65	.75	.51
Dried peaches, lb.	.73	1.32	1.68	1.55
Corn meal, lb.	.14	.30	.44	.21
Honey, lb.	.55	.79	1.05	.50
Cucumbers, lb.	.19	.79	.69	.57
Total of above 5 items	1.90	3.85	4.61	3.34
"Market basket" of 29				
standard foods	11.00	20.30	21.90	17.80

of Agriculture compared prices in the District of Columbia. Here is what they found:

The low prices of the regular supermarket foods are out of the Good Old Days. However, the most interesting thing about the table is the difference in price between regular and "organic" foods in the same supermarket. What do you think an on-the-ball store manager would do if he ran out of organic cucumbers and had plenty of the regular variety on hand (especially if he were aware that there is basically no difference between the two products anyway)?

The Appeal for "Consumer Protection"

Without doubt, the typical 50–100% markup has led many enterprising merchants to label regular food as "organic." Calling this practice a "fraud," promoters of "real" organic food are asking our government to "protect" their customers from "fake" organic food. Ignoring the fact that "real" organic food is identical or inferior to regular food, they suggest that their customers should be able to get "what they *think* they are paying for"—that is, foods produced by "genuine" organic methods.

Rodale Press has designed a "certification" program whereby farmers who follow its suggested methods are given labels which indicate that their methods have met Rodale standards. Once the labels are given to the farmers, however, there is no practical way to supervise how the labels are used.

Organic certification proposals could be regarded as quite humorous except for the fact that some government officials have taken them seriously. Certification programs have actually been started in Oregon and New Hampshire. Not only that, but in Texas, the U.S. Office of Economic Opportunity is offering technical assistance so that "poor farmers can raise their incomes enough through organic farming to stay on the land."

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Back to "Nature"

The word "natural" has become a magic sales gimmick. But its definitions by promoters are even more meaningless than those of the word "organic." Even beer and tobacco are being boosted for their supposed natural qualities.

To further our inquiry, let's look at the definition of "natural foods" presented to the Federal Trade Commission by Annette Dickinson, lobbyist for the Council for Responsible Nutrition (a health food industry organization):

- 1. The source must be living plants and animals. Thus salt, naturally occurring sodium chloride, may be considered natural.
- 2. The concept applies only to post-harvest treatment of food.
- 3. Natural fruits and vegetables are harvested ripe, so that the indigenous flavor, color and nutritional value are fully developed, except that climacteric fruits, such as bananas, may be harvested before full ripening.
- 4. The inedible portions of natural foods may be removed. This includes peeling or seeding of some fruits and vegetables, shelling of nuts, removal of chaff and hull from grains, etc.
- 5. The edible portions may be processed only by certain physical or mechanical methods or by fermentation. Specific processes are limited to the following:
 - A. The product may be cut into smaller portions.
 - B. Fruits and vegetables may be pressed to express their juices.
 - C. Oils may be expressed from seeds and other source materials by pressing.
 - D. Grains may be rolled, cut or ground. Whole grain flours and meals are natural. When whole grains are separated into their component parts, the components will not be considered natural unless they have a nutrient density at least as great as that of whole grain. In the case of whole wheat, the effect will be that whole wheat flour, bran and germ will qualify as natural, while white flour will not.
 - E. Eggs are natural products, as are yolks and whites used separately.
 - F. The refining of sugar beets, sugar cane, etc., to produce highly purified sugars is inappropriate for natural foods and the resulting sugars are not natural. This applies to molasses and to brown or "raw" sugars as well as white sugars or syrups. The only sugars

occurring in nature in a form approximating their commercial form are honey and maple syrup.

- G. Whole milk is a natural product. When separated into skim milk and cream, the resulting products are also natural. Dairy products may be pasteurized only to the extent required by public health laws. They may not be subjected to more severe heat to extend shelf-life. They may be homogenized, churned or fermented.
- H. Natural foods which are fluid or have a high moisture content may be concentrated but not subject to extreme dehydration, as in dry milk, instant coffee and freeze-dried vegetables.
 - I. Traditional methods of sun-drying are appropriate for natural foods such as spices, fruits and teas, provided no additives are used.
 - J. Refrigeration and freezing are appropriate . . .
- K. Natural foods may be heated to the extent necessary for preservation and/or palatability. Dry heat such as roasting of nuts and baking of bread are acceptable. Moist heat treatment such as blanching, boiling or steaming are appropriate. Frying is not, since this adds oil or fat to a food.
- L. Traditional methods of smoking, drying and curing meats are appropriate if they do not involve the use of additives.
- M. Fermentation is appropriate, whether accomplished by naturallyoccurring organisms or by added cultures.
- N. Micro-organisms approved by the FDA for use in food are themselves a natural food.
- 6. Natural food may consist of a single ingredient or a combination of ingredients provided each is a natural food.
- 7. No artificial or synthetic ingredient may be used.
- 8. The color, flavor and nutritional value should be indigenous to the food or its basic ingredients. Added purified flavors, colors and nutrients are not appropriate . . .

The above definition is irrational and full of inconsistencies. In point 1, after declaring that natural foods must come from live plants and animals, Ms. Dickinson stretches to include table salt, which comes from neither. Point 3 includes ripe fruits in the category of natural, but excludes most unripe ones. Presumably some magical change occurs during ripening to convert unnatural fruits and vegetables into natural ones.

Point 5 goes the other way. Sugar is refined by a process of crystallization which removes dirt and other inedible substances. The end result is pure sucrose—unchanged by crystallization—the very same sucrose that is found in fruits and vegetables. Pure sucrose contains no additives, pesticide residues or other "artificial" or synthetic ingredients. But according to Ms. Dickinson, the purification process makes it unnatural. Natural honey, as defined by her, may contain allergy-causing substances and disease-causing bacteria. But pasteurization, which inactivates both, makes the end product unnatural.

According to 5G and 5H, removing cream from milk leaves a natural product (skim milk), but removing water from milk creates an unnatural one (powdered milk). The separation of cream also removes vitamin A, but point 8 states that replacing the lost vitamin A by fortification makes the milk unnatural.

Item 5L states that traditional methods of smoking meats are natural if they do not involve the use of additives. However, the residue of the smoke itself is an additive that may even cause cancer. Point 5K ignores the fact that processing by heat is necessary for certain foods, such as soybeans, to inactivate enzyme inhibitors and thus make them digestible. Point 8 excludes the addition of vitamins and minerals to foods, ignoring, for example, the public health value of iodized salt. Item 5J allows freezing, but 5H forbids freeze-drying. And so on.

The FTC Reacts

Ms. Dickinson's definition of "natural" was presented to the FTC during a rulemaking proceeding that began in November 1974 in response to the turmoil surrounding advertising claims for many types of food products. Claims for "organic," "natural" and "health" foods were among them. The FTC noted initially that the three terms were not clearly defined and were also used interchangeably by both sellers and buyers of these products. The original FTC staff proposal included a ban on the terms, "organic," "natural," "organically grown" and "naturally grown."

Commissioner William D. Dixon presided over the FTC inquiry. In January 1978, after several periods of comment, including 50 days of live testimony by interested parties, Mr. Dixon issued his findings. Foods labeled "organic" or "natural" are not safer or more nutritious than their ordinary counterparts. Indeed, in many instances, "natural" foods may be *less* safe or nutritious than foods that have been fortified or highly processed.

Although Mr. Dixon reached the correct scientific conclusions, his *political* conclusion was that public confusion "points more toward the need for definition to govern use of the terms than a total ban on their use." The term "health food" should be banned as inherently misleading, but the terms "organic" and "natural" should be officially defined by the

FTC. Despite its inconsistences, Ms. Dickinson's submission was regarded by Mr. Dixon as "among the most constructive received" and could well "form the basis for a final solution."

In September 1978, the FTC staff issued its recommendations for a final rule. No food could be advertised as a "health food," but the term "health food store" would still be permitted. "Organic" and "natural" would be redefined by the FTC. The organic definition would be similar to that of Rodale Press and "natural" would mean "minimal processing" with no artificial additives.

In our opinion, such action by the FTC can only *increase* public confusion. Government endorsement of the health food industry's slogans will be seen by the public as an endorsement of the mythology that surrounds the slogans. Shoppers are not going to be reminded of the FTC's *scientific* conclusions. They will merely see the labels and be invited to pay higher prices for "superior" products.

There is also the question of enforceability. No definitions of the words "natural" and "organic" can be devised that are logical and consistent with scientific facts. "Minimum processing" is indefinable and "organically grown" foods cannot be distinguished from their conventional counterparts. Enforcement of intangible "standards" can lead only to endless arguments and a waste of government resources.

Overview

Two hundred years ago, the average family in the Western world had to spend most of its time grubbing a meager living from the soil. The lack of fertilizer, the presence of pests that demolished crops, and the absence of knowledge about plant breeding all combined to keep most people hungry. Then chemists discovered that plants were actually nourished by inorganic chemicals. Phosphate, potash, nitrate and ammonia were needed. They could come either from the breakdown of manure by soil bacteria, or from rock phosphate, inorganic potash, nitrates and ammonia salts. The agricultural revolution was on. Farmers became able to feed more and more city folk.

A century ago, farmers were helpless against the fungus blight which turned their potatoes into a black slime. As a result, one million people starved to death during the Irish potato famine. Pesticides to control the blight were not yet available.

As agricultural knowledge increased by leaps and bounds, farming became increasingly scientific. Plant and animal breeding gave us fine new strains of grains, vegetables, fruits, poultry, pigs and cattle. More efficient fertilizers and a wide variety of pesticides were developed. Rare delicacies became commonplace.

The new chemical methods required careful regulation to see that farmers used them properly. Pure food laws were passed to make sure that only insignificant traces of unwanted pesticide residues were present in foods. These laws appear to be working well. There has not been one case of illness in America which can be attributed to a scientific agricultural procedure. In contrast, in countries where "organic" fertilizers (such as human waste) are used, food poisoning from disease organisms is quite common.

As scientific agriculture developed, so did methods of processing, preserving and distributing foods.

Against this 200 year background of fantastic scientific progress have emerged voices of quackery who cry that our food supply is neither safe nor nutritious. They either ignore or fail to understand scientific thought. They profit greatly by frightening the public into buying their ideas, their publications and their overpriced or unnecessary "health" products.

Many Americans, worried about pollution and flooded with misleading information in talk shows and publications, are responding to the quacks. Despite the fact that "organic" and "natural" foods can neither be defined nor told apart from "regular" foods, people are willing to pay more for them. Americans now spend more than a *billion* dollars a year for them.

But the ultimate irony is that the organic-natural-health food industry, which itself preys on confusion and false hopes, may actually succeed in getting our government to certify its fakery by setting "standards." With such legal approval, its customers would be purchasing "genuine" fakes.

The organic-natural-health food lobby is clever and well-organized. Let us hope that government officials who are pressured by this lobby can see more clearly who needs protection and from whom. Instead of protecting an industry which is itself a fake, our government should educate consumers. And since the slogans of this industry cannot be accurately defined, their commercial use should be outlawed.

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The Unhealthy Alliance

Promoters, fighting for the right to cheat. Victims, fighting for the right to be cheated.

> BY STEPHEN BARRETT, M.D. Chairman, Board of Directors

Lehigh Valley Committee Against Health Fraud, Inc.

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From 1972 through 1976, Congress received more than a million letters urging it to *weaken* consumer protection in the field of health. Responding to this pressure, most Congressmen became sponsors of legislation which would do exactly that. This strange situation was the result of an intense campaign led by an organization called the National Health Federation (NHF).

Millions of Americans waste large amounts of money on vitamins, minerals and other "food supplements" which they do not need. Some buyers fear that the American food supply cannot give them enough nourishment. Others hope that nutritional gimmicks are the key to superior health. In 1972, after ten years of study, the U.S. Food and Drug Administration (FDA) proposed a number of marketing rules to combat this public confusion. Under these rules, many misleading tactics commonly used by "health food" marketers would have been forbidden.

NHF responded immediately with an all-out campaign to weaken the FDA. Lawsuits were filed to block the new FDA rules and Congress was urged to lessen FDA jurisdiction over food supplements and the claims which help to sell them.

NHF's Leaders

The reason for NHF involvement in this issue is suggested by the backgrounds of its leaders. Many of them write or publish books and other materials which support unscientific health theories and practices. Many sell questionable "health" products and some have even been convicted of crimes while engaged in this kind of activity.

• Fred J. Hart, NHF's founder, was for many years the president of the Electronic Medical Foundation. In 1954, Hart and the Electronic Medical Foundation were ordered by a U.S. District Court to stop distributing 13 electrical devices with false claims that they could diagnose and treat hundreds of diseases and conditions. In 1962, Hart was fined by the court for violating this order. Hart died in 1975.

• Royal S. Lee, a non-practicing dentist who died in 1967, helped Hart found NHF and served on its board of governors. In 1962, he and the vitamin company which he owned were convicted of misbranding 115 special dietary products by making false label claims for the treatment of more than 500 diseases and conditions. Lee received a one-year suspended prison term and his company was fined \$7,000.

• Andrew G. Rosenberger, a "nature" food store operator, has been listed as NHF "nutrition chairman" and has been a featured speaker at NHF conventions. In 1962, he and his brother Henry were fined \$5,000 each and were given six-month suspended prison sentences for misbranding dietary products. Their corporation, Nature Food Centers, was fined \$10,000.

• Kurt W. Donsbach, chairman of NHF's board of governors, is a chiropractor and naturopath by background. In 1970, while Donsbach operated a "health food" store, agents of the Fraud Division of the California Bureau of Food and Drug observed him represent that vitamins. minerals and herbal tea would control cancer, cure emphysema and the like. Charged with nine counts of such illegal activity. Donsbach pleaded guilty to practicing medicine without a license and agreed to cease "nutritional consultation" Most of the products which Donsbach was "prescribing" to his "patients" were packaged by a company which he operated. After selling that company in 1973, he became president of Metabolic Products, a company specializing in "orthomolecular concepts," which he sold in 1975. According to literature from Metabolic Products, its garlic extract could "prevent cellular deterioration," its alfalfa product had "anti-toxin properties" which could help to overcome "-itis" diseases, and so on. RichLife. Inc., of Anaheim, California, currently sells Dr. Donsbach's Pak Vitamins, 17 different "specialized formulas" to "help make your life less complicated, more healthy," Among the products are an Arth Pak, an Athletic Pak, a Dynamite Pak, a Health and Beauty Pak and a Stress Formula Pak.

• Victor Earl Irons, vice-chairman of NHF's board of governors, received a one-year prison sentence in 1957 for misbranding "Vit-Ra-Tox," a vitamin mixture sold door-to-door. According to a 1978 brochure from V. E. Irons, Inc., "The *most important* procedure toward regaining Your Health is the COMPLETE and THOROUGH cleansing of the colon." The products necessary for its "Vit-Ra-Tox Seven Day Cleansing Program" can be purchased for \$65.50.

• Roy F. Paxton, while serving as an NHF governor in 1963, was sentenced to three years in prison for misbranding "Millrue" as effective in treating cancer, arthritis and other serious diseases. One way Millrue was sold was by mail through ads in an NHF publication.

• Clinton Miller, NHF executive vice-president and lobbyist, had a quantity of "dried Swiss whey" seized from his Utah wheat shop in 1962. The FDA charged that the product was misbranded as effective in treating intestinal disorders. The whey was returned when Miller agreed to change its labeling. In 1976, Miller was an unsuccessful candidate for the United States Senate.

• Paul J. Virgin, NHF treasurer, is public relations director of the Alta

Dena Dairy, a producer of raw (unpasteurized) milk. This dairy has been implicated several times as a source of salmonella infection in raw milk consumers in California.

• Bruce Helvie, an NHF governor, had vitamin and mineral products seized by the FDA because they were marketed with false and misleading claims for treatment of more than 25 diseases and conditions. The seized products were destroyed by consent decree in 1960.

• Bob Hoffman, another NHF governor, owns a publishing firm and sells "health" products through his company, York Barbell Co. In 1960, the company was charged with misbranding its "Energol Germ Oil Concentrate" because literature which accompanied the oil claimed falsely that it could prevent or treat more than 120 diseases and conditions, including epilepsy, gallstones and arthritis. The material was destroyed by consent decree. In 1961, fifteen other York Barbell products were seized as misbranded. In 1968, a larger number of products came under attack by the government for similar reasons. In the consent decree which settled the 1968 case. Hoffman and York Barbell agreed to stop a long list of unproven health claims for their products. In 1972, the FDA seized a shipment of three types of York Barbell protein supplements, charging that they were misbranded with false and misleading bodybuilding claims. A few months later, the seized products were destroyed under a default decree. In 1974, the company was again charged with misbranding Energol Wheat Germ Oil Concentrate and protein supplements. The wheat germ oil had been claimed to be of special dietary value as a source of vigor and energy. A variety of body-building claims had been made for the protein supplements. The seized products were destroved under a consent decree.

• H. Ray Evers, M.D., another NHF governor, is a major promoter of "chemo-endartectomy therapy" (also called chelation therapy) for a wide range of chronic diseases. He claims to have treated more than 15,000 patients since 1964. In 1976, at the FDA's request, a Louisiana federal judge prohibited Evers from using chelation therapy in Louisiana; but two years later, an Alabama judge allowed him to continue its use in Alabama. In 1979, Evers moved his practice to the Bahamas. According to the January 1980 *NHF Bulletin*, he left because he was "tired of FDA harassment," he faced million-dollar lawsuits by survivors of two of his patients who died, and he was unable to obtain insurance coverage as a result of these various legal actions. Weekly rates at his 80-bed clinic range from \$1,750 to \$2,250 for noncancer patients and from \$2,250 to \$2,750 for cancer patients!

• Emory Thurston, another NHF governor, has been an active promoter of laetrile, a worthless cancer "remedy." Pro-laetrile pamphlets edited by him were displayed at his booth at an NHF convention at Anaheim, California, in 1973. When approached by an agent of the California Bureau of Food and Drug, who told him she had cancer of the uterus, Thurston said he could supply her with laetrile. He instructed the agent to contact him at his office at the Institute for Nutritional Research in Hollywood. She did. During their next meeting, Thurston sold laetrile to the agent—and advised her not to have surgery! After additional evidence against Thurston was gathered, he was convicted, fined \$500 and placed on probation for two years.

• James R. Privitera, M.D., another NHF governor, was convicted in 1975 and sentenced to six months in jail for conspiring to prescribe and distribute laetrile.

Others who now serve, or who have recently served, on the 27-person NHF Board of Governors include:

• Harald J. Taub, who was editor of *Let's Live* and *Prevention*. Both of these magazines strongly promote the use of food supplements.

• Norman W. Bassett, publisher of Let's Live.

• David Ajay, president of the National Nutritional Foods Association (NNFA), a trade association representing some 2,000 "health food" retailers, distributors and producers. In 1978, Ajay announced "Operation Counterattack," a series of lawsuits against "detractors of our industry who have been calling us ripoffs."

• Max Huberman, past-president of NNFA.

• John Hemauer, past-president of the California Chiropractic Association.

• John W. Noble, past-president of the National Association of Naturopathic Physicians, who died in 1976.

• L. P. DeWolf, who, according to NHF, has had "40 years of experience in the organic produce field."

• Andrew McNaughton, a leading promoter of laetrile.

• Bernard Jensen, D.C., a leading exponent of iridology, a system of diagnosis based upon examination of the iris of the eye.

• Robert S. Mendelsohn, M.D., author of the syndicated newspaper column, *The People's Doctor*. Although he has been chairman of the Illinois state licensing board, Dr. Mendelsohn considers himself a "medical heretic." He believes that "Modern Medicine's treatments for disease are seldom effective, and they're often more dangerous than the diseases

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they're designed to treat"; that "around ninety percent of surgery is a waste of time, energy, money, and life"; and that most hospitals are so loosely run that "*murder* is even a clear and present danger."

• Betty Lee Morales, president of the Cancer Control Society, a group which promotes unproven cancer "remedies." She is also a publisher and a co-owner of Eden Ranch, a firm which sells *Betty Lee Morales Signature Brand* food supplements. Promotional material from Eden Ranch suggests that Americans who do not use food supplements run a significant risk of developing deficiency diseases. Among its many supplement products are *Lipotropic Plus*, to relieve "liver stress" and *Nia-Flex*, to relieve stiff joints.

Nutritional Consultation

In 1976, the Lehigh Valley Committee Against Health Fraud answered an ad in *Let's Live* magazine which offered information from Eden Ranch abouts its food supplements. The reply contained a two-page health questionnaire which we returned, indicating that the writer, "age 61," was in good health except that:

For several years I have had (on and off) pain and swelling in the joints of my fingers and toes. During the past few months, I have had attacks of blurred vision. Sometimes my eyes ache and I see halos around lights at night. Your suggestions would be most welcome.

The arthritis symptoms, while not specific, were compatible with a diagnosis of gout (the one form of arthritis that can sometimes benefit from a dietary program). The eye symptoms were taken from a textbook description of glaucoma, a condition that could soon lead to blindness if not treated.

Mrs. Morales' reply contained a disclaimer that her advice was for:

public education . . . and to assist individuals to cooperate with the doctors of their choice in building better health . . . In the event that the information is used without the supervision or approval of a doctor, that is prescribing for yourself, which is your constitutional right, but we assume no responsibility.

Her "highly personalized nutrition program" consisted of "detoxification" with a special diet and enemas, plus 15 different food supplements which could be purchased from Eden Ranch or health food stores. Based on an enclosed price list, the supplements would cost more than \$40 per month. They were of no medically-recognized benefit for either arthritis or visual difficulty. There was no apparent recognition by Mrs. Morales that the eye symptoms might be serious or require urgent medical attention.

In 1978, NHF persuaded the California legislature to pass a law that allows any person to give nutritional advice so long as no attempt is made to diagnose, prevent or treat any disease.

Kurt Donsbach, chairman of NHF's board of governors, is also president of Donsbach University, an unaccredited school which offers "qualified students an opportunity to complete the specific requirements of the University in a substantially shortened time frame of study, with no classroom or mandatory attendance required." Tuition is \$1,295 for a bachelor of science degree, \$1,395 for a master's degree and \$1,895 for a Ph.D., but the three degrees can be obtained in a combination program for only \$3,040. Credit toward a degree is given for "life experiences" such as working in a health food store, selling food supplements, or reading approved books. The school catalogue is a four-page flyer. An iridology course costs \$1,495.

Textbooks required for the "basic curriculum" include books written for the general public by Donsbach, Carlton Fredericks, Gary Null, Emanuel Cheraskin, Roger Williams, Robert Atkins (of dietary fame) and Carl Pfeiffer (promoter of megavitamins for severe mental problems). The on-campus faculty has seven members, including Donsbach, Ray Yancy (an iridologist) and Alan H. Nittler, M.D. (who, according to NHF, "lost his medical license in 1975 because he utilized nutritional therapies"). The school's advisory board has 15 members, including Mrs. Morales, Bruce Halstead, M.D. (promoter of chelation therapy), and Richard Passwater (major proponent of "vitamin B-15").

In 1979, Donsbach began publishing the Journal of the International Academy of Nutritional Consultants, with Dr. Nittler as its editor. The first issue had a press run of about 25,000 copies, most of which were sent free-of-charge to chiropractors. The second issue explained that Academy members could be listed in a directory, that the Academy "will in no way encourage or tolerate the practice of medicine under the guise of nutritional consultation," and would establish a legal fund to "protect our members from undue and unfair harassment by bureaucracies or agencies . . ."

How NHF Is Organized

The National Health Federation is a membership organization with headquarters in Monrovia, California, and a legislative office in Washing-

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ton, D.C. Its members pay from \$12 per year for "regular" membership to a total sum of \$1,000 or more for "perpetual" membership. Many of the larger donors have financial interests in the matters promoted by NHF.

Because of the extent of its political activities, NHF could not qualify as a charitable organization so that contributions to it would be deductible for federal income tax purposes. However, NHF advertisements and letters of welcome to new members have stated otherwise. In 1972, responding to a complaint from the Lehigh Valley Committee Against Health Fraud, Inc., the Internal Revenue Service ordered NHF to stop misrepresenting its tax status.

NHF members receive a monthly 32-page *Bulletin* and occasional brief mailings. They are also invited to frequent conventions, most of which take place in the Western part of the U.S. Visitors to such meetings have noted that most of their participants are persons of middle-age or older who are preoccupied with their health. Many exhibit a rigidly suspicious outlook, fearing that government is thoroughly failing to protect them from "poisons" in their food and from exploitation by medical and drug industries. In November 1974, during a brief visit to an NHF convention in New York City, I noted that at least five of its 34 exhibitors were making misleading sales claims for their products. Most blatant was the claim that a sea-water concentrate would prevent cancer.

According to the National Health Federation Handbook, available for ten cents, any two members can start a local chapter by adopting the NHF constitution and bylaws, naming temporary officers and receiving clearance from NHF headquarters. The Handbook envisions a pyramidal national structure with local groups selecting a county board of directors, county boards selecting a state board of governors and state boards selecting one delegate each to join 27 at-large governors at the national level. This structure is mainly hypothetical, however, since the number of active chapters has generally been fewer than 100. National membership, estimated from *Bulletin* circulation figures, has averaged about 21,000 during the past five years. During the same time period, NHF's annual budget rose from \$345,000 to \$914,660.

NHF's Philosophy

Since its formation in 1955, the steadfast purpose of NHF has been to promote what it calls "freedom of choice" by health consumers. As stated in each issue of its monthly *Bulletin*:

NHF opposes monopoly and compulsion in things related to health where the safety and welfare of others are not concerned. NHF does not oppose nor approve any specific healing profession or their methods, but it does oppose the efforts of any one group to restrict the freedom of practice of qualified members of another profession, thus attempting to create a monopoly.

At first glance, this credo may seem harmless and somehow related to opposing unfair business competition. What NHF really means, however, is that scientific methods of treatment should not be allowed to drive quackery out of the marketplace. Under this philosophy, anyone who has a product or a "treatment" which he claims can help sick people should be allowed to sell it. Proof that a particular method works should not be required. People should be free to decide for themselves which health care measures they will use. Unless a method causes immediate death or serious injury, our government should not interfere.

Put in its simplest terms, what the National Health Federation wants is for quackery to be made legal.

The Scope of NHF Activity

NHF's publications and convention programs make it clear that NHF promotes the gamut of questionable health methods and has little interest in medically acceptable types of treatment.

Nutritional fads, myths and gimmicks are given favorable mention by NHF Bulletin articles, by convention speakers and special mailings and by pamphlets available at conventions and by mail. Worthless cancer treatments, particularly laetrile, are promoted in the same ways. Bulletin articles look with disfavor upon such proven health measures as pasteurization of milk, smallpox vaccination, polio vaccination and fluoridation of water. Use of nutritional supplements is encouraged by claims that our food processing depletes its nutrients. Use of "natural" products is encouraged by exaggerated claims that our food supply is "poisoned." Chiropractic is regarded favorably. Books which promote questionable health concepts are reviewed favorably in the Bulletin. Underlying all these messages is the idea that anyone who opposes NHF ideas is part of a "conspiracy" of government, organized medicine and big business against the little consumer.

NHF files many lawsuits against government agencies and joins in the defense of people accused of frauds in the sale of questionable "health" products. It also has an active legislative program with a Washington-based lobbyist.

NHF was active in support of chiropractic inclusion under Medicare and in opposition to federal subsidies to communities who want fluoridation. To bolster the influence of its lobbyist, the *Bulletin* and special mailings include form letters and instructions to write to Congressmen and Federal officials in support of NHF positions. Letter-writing requests invariably contain misinformation about the issues and contain underlying themes of persecution, discrimination and conspiracy. For example, to arouse support for the anti-FDA vitamin bill, NHF suggested that FDA regulations would drive up prices, "take away our vitamins" and even make it illegal to manufacture most of the supplements now available.

Crying, "Fight for your freedom to take vitamins!" NHF organized its members and allies into unprecedented political activity. Article after article urging support of the anti-FDA bill appeared in the NHF *Bulletin*, in *Prevention* magazine and other health food industry publications, and in chiropractic journals. Letter-writing kits were distributed by chiropractors, health food stores and in special NHF mailings. At a Congressional hearing held on this issue, several Congressmen reported that they received more mail about vitamins than about Watergate! As the mail piled up, most Congressmen lost sight of why it was coming—that their constituents had been confused and frightened by health food industry propaganda. In 1976, a modified form of NHF's anti-FDA bill was passed by Congress.

In 1973, a New Jersey-based group called Citizens for Truth in Nutrition (CTN) was formed. Although apparently independent from NHF, it was led by many NHF activists. Its major activities included anti-FDA meetings, media appearances and anti-FDA lawsuits. Like NHF, CTN's promotional literature claimed falsely that its contributions were taxdeductible until it was ordered to stop these claims by the Internal Revenue Service.

Promotion of Laetrile

In February 1978, NHF began publishing *Public Scrutiny*, a monthly 16–24-page newspaper whose primary focus is on laetrile and "metabolic therapy." The majority of its staff are prominent promoters of Laetrile and three of its advisors have been convicted of Laetrile-related crimes.

Because laetrile lacks FDA approval as a safe and effective drug, it is illegal to transport it across state lines. However, cancer patients who are certified by their physicians as "terminal" may legally import a six-month supply for personal use. Each issue of *Public Scrutiny* contains a full-page ad from the Laetrile Information Center, a company near the Mexican border which will arrange for legal importation. Mexican clinics and other sellers of laetrile also advertise regularly in *Public Scrutiny*.

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NHF's library is organized as a separate corporation. Contributions to it, which are tax-deductible, are being used to purchase transcripts of court cases and to support research favorable to laetrile. Early in 1978, NHF used Richard A. Viguerie to send its members a fundraising letter and poll. (Viguerie is the fundraising expert who specializes in computerized mailings for right-wing organizations.) The letter announced that "the NHF Memorial Library has just decided to make the legalization of laetrile its No. 1 priority" and would "conduct a major effort to mobilize Congressional support against the outrageous ban on laetrile." Regarding the poll, the letter promised:

Your responses along with the responses of other selected members of the community will be tabulated and released to the national press, the United States Senate Health Subcommittee and each of your senators and congressmen.

Public Scrutiny published the results of the poll in an article headlined "Americans Want Freedom of Choice." Over 90 percent of those who returned their voting cards favored NHF's position on each of the four laetrile-related questions. Hardly surprising, since only NHF members voted.

For many years, NHF has lobbied for legislation to enable "harmless" drugs to be marketed before they are proven effective. Recently a new type of bill was introduced by *Public Scrutiny*'s legislative advisor, physician-Congressman Larry McDonald (D-Ga.). A suit by survivors of a patient he treated with laetrile was settled in 1979 for \$30,000. McDonald's bill would specifically exempt laetrile from FDA jurisdiction. After its introduction, NHF sent members another computerized fundraiser containing petitions to Congress.

NHF furnishes support to many people involved in laetrile court cases. Appeals in *Public Scrutiny* have raised more than \$5,000 to help NHF governor James Privitera, and NHF gave \$5,000 toward the legal expenses of the parents of Chad Green, a 3-year-old boy with leukemia. Chad attracted nationwide attention when his family moved to Mexico in order to defy a Massachusetts court's order that the boy receive orthodox therapy. Chad's progress was closely followed by *Public Scrutiny*. Two pages in the October 1979 issue described how Chad was thriving, how his father was studying for a career as a "nutrition consultant" at the Mexican clinic where Chad was being treated with laetrile, and how Chad's mother had stopped his chemotherapy without telling the clinic doctor. A few days after the newspaper was distributed, the boy died.

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NHF's Fight Against Fluoridation

Scientists know that if children get the proper amount of fluoride in their diet, they will get a lot fewer cavities in their teeth. Adjusting community drinking water to about one part fluoride to one million parts water is a safe and simple way to accomplish this. Although NHF's leaders claim to be interested in preventing disease by "proper" nutrition, they fight hard against water fluoridation.

Over the years, NHF has assembled a great many "documents" which it claims are "proof" that fluoridation is dangerous (which it is not). Close examination of these documents, however, shows that they contain reports of poorly designed "experiments," twisted accounts of actual events, statements by respected scientists taken out of context to change their meaning, misinterpreted statistics and other forms of faulty reasoning. Given enough publicity, however, these items can convince many communities that fluoridation is too risky. Many innocent American children have NHF to thank for their toothaches.

In January 1972, NHF granted \$16,000 for a fluoridation study to the Center for Science in the Public Interest (CSPI), a group led by former associates of Ralph Nader. To help raise this money, a special mailing was sent to NHF members:

SPECIAL URGENT APPEAL = NHF is proud to announce that it has undertaken to underwrite \$16,000.00 in costs for the CLINICALLY controlled investigation of the long-term effects of fluorides in the human. This test is being conducted by FRIENDS of indisputable, scientific reputation. With this information we will be armed with unassailable, up-to-date, scientific data to help defeat fluoridation! There is NO such study available in the world at this time and the costs are amazingly low. The Executive Committee committed us to this obligation in emergency session . . .

When CSPI learned about this fund-raising message, it protested, stating that its study would be a scientific review of available knowledge and that the outcome was certainly not fixed against fluoridation. NHF apologized, claiming that the fund-raiser had been mailed "without being cleared by appropriate officials" and contained "serious errors" about the nature of the study.

In August 1972, a preliminary draft of the CSPI study was released to activists on both sides of the fluoridation controversy. This was done so that its author could get suggestions and criticisms from knowledgeable individuals before he wrote his final report. The final report was issued at about the same time as the December 1972 NHF *Bulletin* went to press stating:

A good many months ago, NHF voted a grant to the Center for Science in the Public Interest to underwrite an unbiased study of total fluoride consumption and its influence on health. This was done on the anticipation that such a study, never before undertaken by a scientific body, would put the fluoride controversy into proper perspective. That study is nearing its completion. Two preliminary, interim reports have been issued. It begins to appear as if most of the contentions of NHF on this question will be validated in this unbiased study.

CSPI's final report, however, did not "validate most of NHF's contentions." Rather, it concluded that ". . . the known benefits of fluoridation far outweigh any risks which may be involved."

The favorable outcome of this study was never reported to NHF members. In private communications, however, NHF claimed first that the study "was never completed" and later that it was unacceptable because its author ignored too much anti-fluoridation "evidence." A Rodale Press editor suggested that the author had been "intimidated" or "bought off."

Thus, having invested \$16,000 in an "unbiased" study by "FRIENDS of indisputable, scientific reputation," NHF ignored its conclusions.

During 1974, NHF announced that opposing fluoridation would be its number two priority and that a biochemist named John Yiamouyiannis had been hired to "break the back" of fluoridation promotion. Yiamouyiannis soon began issuing reports based on misinterpreted government statistics, claiming that fluoridation causes cancer. In 1978, after an article in *Consumer Reports* criticized his work severely, he filed suit for libel—but the suit was dismissed a few months later by a federal court judge.

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NHF thus stands revealed. Its policies disregard medical science and proven public health measures. Its leaders promote questionable "health" methods, often at personal profit. Its followers, although confused about the issues in which they involve themselves, are active in the arena of politics.

NHF is well-organized and working hard. Its leaders probably hold sincere beliefs in their health methods. Its followers sincerely believe they can improve their health by following the methods of their leaders.

Sincere or not, however, NHF may be dangerous to your health!

Q: "Did acupuncture relieve you of your problem?" A: "No. It just relieved me of my money."

BY

ARTHUR TAUB, M.D., Ph.D. Clinical Professor of Anesthesiology Yale University School of Medicine

Immediately before and after the visit of former President Richard M. Nixon to the People's Republic of China in 1971, reports were circulated in the West by visitors to China suggesting that major surgery could be accomplished with the use of acupuncture alone as the anesthetic agent. The impression was given that acupuncture was widely used, that it could be used in high risk cases, in children, in the aged, and in veterinary surgery. Perhaps the best known rumor about "acupuncture anesthesia" was that the New York Times' journalist, James Reston, had his appendix removed with acupuncture as the anesthetic. Whatever the reasons for these ideas having gained currency, they are, every single one of them, untrue.

Acupuncture As a System of Medicine

Chen-Chiu, or acupuncture-moxibustion, is a technique of medical treatment which began in Stone Age China. It consists of the insertion of needles into the skin, or muscles and tendons beneath, at one or more named points. These points are generally found where imaginary horizontal and vertical lines meet on the surface of the body. These points are said to "represent" various internal organs. The organs are also "represented" by acupuncture points on the surface of the ear or on one finger. Good health is said to be produced by a harmonious mixture of Yin and Yang, the fundamental activity characteristics of the universe, which combine to form the life force, or Ch'i. The disorganization of the flow of Ch'i is said to produce illness. The acupuncture needle supposedly can regulate this flow. Moxibustion is a technique in which the herb *Artemesia Vulgaris*, or wormwood, is burned at specified points on or near the skin, sometimes to the point of blistering.

Classical Chinese physicians, applied these techniques to the entire range of human illness. Surgery as such (save for the operation of castration used to supply eunuchs for the imperial household) was not a part of classical Chinese medicine. The diagnosis of disease was based mainly upon the diagnosis of the "pulse." This was not a measurement of the rate and rhythm of the heart, as is done nowadays. Rather, the "pulse" was related to such things as the "texture" and force of the radial artery at several points of the wrist, while the artery was being compressed lightly or forcefully. The feeling imparted to the finger of the pulse diagnostician revealed the state of health of the various internal organs. Diagnosis was also based upon the history of the patient's symptoms and on the state of the weather. Because dissection of the human body was not practiced, internal organs were imagined in rather odd positions and shapes. Pseudoviscera, or non-existent organs, were invented. One of

these was the so-called "triple warmer," whose precise location baffles the most astute translator of Chinese acupuncture classics.

Herbal pharmacology played and continues to play a significant role in classical Chinese medicine. Herbs were generally made into a sort of tea. Some of these herbs possess useful therapeutic properties (such as the herb Ma Huang, which is known to contain ephedrine, a drug useful in the treatment of asthma). The majority of such preparations, however, are worthless. In recent years, many classical preparations have been "adulterated" with active agents which have not been listed as ingredients.

Classical Chinese medicine was practiced for thousands of years, maintained by the force of Buddhist and Confucian conservatism. Discerning Chinese were not always content with it, however, particularly when other forms of medical and surgical treatment became known to them.

Resistance to Acupuncture in China

In the late 19th century, efforts of the waning Manchu dynasty toward modernization included an unsuccessful attempt to forbid acupuncture. In the following years, vigorous opposition to acupuncture was mounted by both right and left-wing intellectuals. Notable among the latter group was Lu Hsun, today a major figure in the literature of the People's Republic of China, and an author much favored by the late Communist Party Chairman Mao Tse Tung. Lu Hsun ridiculed traditional notions of physiology and indicted Chinese medicine for ineptness, ignorance and greed. These indictments were echoed in the 30's and 40's by Pa Chin, a revolutionary writer. Many conservative Chinese Nationalist intellectuals shared these authors' feelings of revulsion toward acupuncture and Chinese medicine. Repeated attempts by the Kuomintang to forbid acupuncture failed primarily because of political pressure. In spite of its low therapeutic value, many party members saw Chinese medicine as a part of the "national essence." Prior to the military unification of Mainland China in 1948-9, the Chinese Communist Party did not place emphasis upon acupuncture as a major medical technique. In fact, in Communist China today, Norman Bethune, a Canadian surgeon (certainly a nonacupuncturist) who died in action with the 8th Route Army in the war against Japan, is a hallowed figure. His statue appears in almost every major museum and public building. His bravery, dedication, and medical and surgical skill are held up as examples for the Chinese people at large to emulate.

Even though the Chinese Communist Party has made an intensive

effort to eliminate traditional modes of thought and to reform social structure, acupuncture has been kept as an integral portion of its national medical system. The Party realized that the approximately 10,000 western-trained physicians in China at the time of the Chinese Communist Revolution were too few to carry out the gigantic public health tasks necessary to modernize China. Medical personnel would therefore have to be recruited from among the approximately 500,000 practitioners of traditional Chinese medicine. It was apparently expected that these practitioners would gradually become more scientific in their work. As Chairman Mao put it, "Traditional Chinese medicine and pharmacology are a great treasure house. Efforts must be made to explore them and raise them to a higher level." The efforts of the Communist Party to elevate traditional Chinese practitioners, however, have been hampered by the Party's other political doctrines. As a result, unscientific medical practices remain widespread throughout China.

Acupuncture Quackery

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Claims that acupuncture is effective are publicly advanced without evidence to back them up.

One strategy by which the Chinese maintain this fiction is to use acupuncture therapy simultaneously with known effective medication. For example, a recent Chinese textbook states, "Epilepsy is generally caused by rising air and congestion causing the heart to be stuffed and confused. The disease is in the heart, the liver, and the bladder. Treatment should be designed to ease the liver, to stop the rising air, to eliminate congestion and to open up stuffed circulation." Six kinds of herbal medicine mixtures are then advocated. Three forms of acupuncture are also included. Vitamins are injected into one of the acupuncture points. However, the effective medications diphenylhydantoin, phenobarbital and primidone are also suggested. For myasthenia gravis, a disease in which muscles including those of breathing are easily fatigued, vigorous physical training methods including cold baths (which could be dangerous in this disease) are suggested by this same textbook. Thirteen useful acupuncture points are discussed, with vitamin injections suggested at some of them. Traditional Chinese herbs are suggested as a "tonic" to improve the "air." Again, however, the effective agents neostigmine, physostigmine and ephedrine are also advised. A similar approach is used in the treatment of parkinsonism ("shaking palsy"). Acupuncture, Chinese herbal medicine, and effective medications such as the belladonna alkaloids are prescribed. There is not the slightest evidence to show that the traditional Chinese medical methods improve the modern treatment of these diseases in any way.

Another strategy adopted by the Chinese to maintain the appearance of the success of acupuncture is the illusion of effective therapy having been given. This is done by suppressing knowledge of the natural course of illnesses which improve spontaneously. Acupuncture is then given credit for curing illnesses which would have improved by themselves.

In May 1974, I was a member of the Acupuncture Study Group of the Committee on Scholarly Communication with the People's Republic of China. Our group visited the Acupuncture Research Institute in Peking as well as traditional medical hospitals in the Shanghai region. There I saw this technique in action. One patient received acupuncture treatment beginning two weeks after a stroke. Patients of this type tend to recover spontaneously and gradually. In fact, this patient, who had received acupuncture for six months, recovered no more and no less than one would be expected to recover with no treatment or with a minimum of physical therapy. Several young women I examined had monthly migraine headaches associated with nausea, vomiting, spots before their eyes and sensitivity to bright light. They told me that monthly acupuncture treatment limited their headaches to a duration of several days per month. They apparently did not know that this is the usual state of affairs without treatment.

Another strategy used by the Chinese is to claim benefit from acupuncture where none, in fact, exists. One nearsighted child I saw was given acupuncture treatment before receiving her eyeglasses. I was told that the degree of her optical correction would be less as a result of the acupuncture treatment she had received. This was simply untrue. Other patients with Parkinson's disease, spinal cord damage, and after-effects of head injury were also said to have "improved." My examination detected no improvement. Patients are also said to receive treatment for "nerve deafness." However, properly controlled studies conducted recently in the United States have failed to show that acupuncture can help nerve deafness.

"Acupuncture Anesthesia"

Acupuncture is not widely used in China as an "anesthetic." A reasonable estimate of the total use of "acupuncture anesthesia" is approximately five to ten percent. In our May 1974 visit to China, the Acupuncture Study Group was able to substantiate a number of previous reports that almost all patients operated upon under "acupuncture anesthesia"

received other agents in addition. This almost always included phenobarbital (a sedative) and meperidine (a narcotic painkiller) before and during the operation. Local anesthesia was also used liberally. I personally witnessed operations in which local anesthesia was used from beginning to end, but which were never-the-less classified as done under "acupuncture anesthesia."

Sometimes acupuncture needles are inserted not only into the skin but as much as several inches beneath the skin directly into major nerve trunks. These can be stimulated with electric shocks to exhaust their ability to conduct impulses and produce local anesthesia. "Acupuncture anesthesia" is not generally used in children under 12 because of their inability to cooperate. Elderly patients are generally not operated upon with "acupuncture anesthesia" and it is considered "experimental" in animals. (When it is done in animals, they are strapped down tightly to the operating table.) On an occasion which I personally witnessed, the animal, a horse, kicked vigorously during the operative procedure, suggesting that anesthesia was not working. The horse also drank with particular eagerness the water that was offered to it, suggesting that it was in surgical shock.

Acupuncture anesthesia is never used for emergency surgery. It is said to be applicable only to "classical" surgery—operations in which no complications are expected. These operations are performed so as to minimize tissue damage and pulling upon muscles or internal organs. To achieve this end, surgical incisions are made small. This means that the operative field is often poorly exposed, increasing the risk that important structures may be damaged. Proper exploration is usually not possible, wasting the opportunity to detect previously undiagnosed disease such as cancer.

The Chinese state that general anesthesia is always available as a "backup" procedure in case the patient experiences overwhelming pain when "acupuncture anesthesia" is used alone. This means, however, that general anesthesia would be started in the midst of an already hazardous surgical situation. The most dangerous time during anesthesia is when the patient is being put to sleep. This is the time where spasms of the vocal cord or arrest of the heart are most likely to occur. If general anesthesia is delayed until severe pain requires it to be used, these dangers are increased.

Despite these drawbacks, a limited number of major surgical procedures have been performed in China using only small amounts of premedication, little or no local anesthetic and the insertion of acupuncture needles. These surgical procedures which have been witnessed have

gone well, but postoperative studies have not been done. Proper studies should not only attempt to describe what has taken place, but must also take into account the fact that Western patients differ from Chinese patients in their reactivity to pain and in cultural attitudes toward surgery. Since good statistical studies are not available from the Chinese, "acupuncture anesthesia" should be considered experimental. Doctors who undertake it, and patients who submit to it, should do so only under carefully controlled conditions in established research programs.

Are you wondering what happened to James Reston? The operation to remove his appendix was done with chemical anesthesia. Acupuncture needles were said to have "relieved" his postoperative pain one hour after they had been used. It seems more likely, however, that the relief resulted from the spontaneous return of normal intestinal function.

Acupuncture "Clinics" and Failed Treatment in the United States

The popularization of acupuncture and its supposed therapeutic results has produced an immense development of acupuncture "clinics" and "centers" throughout the United States. In the District of Columbia alone, more than ten such centers are now in operation. While the majority of these "clinics" or "centers" are "supervised" by licensed physicians, acupuncture is performed in the same manner as it has always been performed. Diagnostic investigations are minimal. Previous diagnoses or misdiagnoses are usually accepted, with therapy prescribed by ancient rule of thumb. The patient is generally abandoned to his own devices if acupuncture does not prove successful after a small number of treatments, generally ten or less. As in classical times (and in modern China), treatment is given for disorders in which symptoms vary with the weather and the disposition of the patient, such as generalized osteoarthritis, or for disorders in which remissions are the rule, such as multiple sclerosis. In a recent taped discussion in which I participated, the director of one American acupuncture clinic maintained that patients previously unable to walk because of multiple sclerosis were able to walk out of his clinic unaided. The gentleman did not indicate how he substantiated the diagnosis. Nor could he state what had prevented the patients from walking, whether their legs were weak, their coordination or balance impaired, and the like. Nor could he state how and to what degree these functions had improved as a result of treatment. It should be clear that if a "paralyzed" patient walks unaided after brief treatment, it is certainly more appropriate to question the diagnosis than to praise the treatment!

Along with the increase in the number of acupuncture clinics and

centers (some of which provide direct bus transportation from local shopping centers to their premises), there has been an increased number of patients seen in pain and arthritis clinics for whom acupuncture has failed. Among those I have personally attended were:

(1) A middle-aged gentleman with sexual impotence and suicidal depression. He had been treated with acupuncture needles placed in the thighs and in the region between the penis and the rectum. Later he required psychiatric treatment.

(2) A middle-aged woman with pain in the upper teeth who was treated with acupuncture stimulation with needles placed between the 2nd and 3rd toes of her foot. She required extensive dental diagnosis and treatment, as well as psychiatric care to compensate for the intense feelings of frustration which followed the failure of treatment.

(3) A middle-aged public relations man who was born with a malformed spinal canal. This gentleman had more pain at the end of treatment than when he began.

(4) Patients with osteoarthritis of the hands who showed minimal relief after the first, but increased pain after the last treatments, and who eventually abandoned them as useless.

(5) Patients with neuralgic pain following shingles which acupuncture did not help.

A characteristic remark of my patients was made by a middle-aged man with back pain who said that acupuncture therapy relieved him only of his money.

Does Acupuncture Relieve Pain?

It is reasonably clear that acupuncture does not cure disease. But, does it relieve pain? My clinical experience with acupunctured patients suggests that if any pain relief is produced by the procedure, it is shortlasting. Formal psychological investigations into this problem have shown conflicting results. In most instances, acupuncture produced no better relief than was produced by a placebo. In other studies, acupuncture did produce some degree of difficulty in distinguishing a previously painful from a non-painful stimulus, but this relief was minimal and short-lasting and was not at all comparable with the degree of relief claimed for conventional acupuncture therapy.

Risks of Acupuncture

Acupuncture has not merely failed to demonstrate significant benefits. It has also, in some instances, been extremely dangerous.

Acupuncture needles are not only inserted into the skin. Needles, up to one foot in length (!), may be inserted deep into the body. Serious harm may result when they penetrate vital structures. In one case of back pain and burning around the mouth and vagina, needles were inserted through the skin of the chest. The lung was penetrated. It collapsed, filling the chest cavity with almost a pint of blood. The patient required two weeks of hospitalization which was complicated by pneumonia.

Death from puncture of the heart has been reported. Other reports mention puncture of the liver, spleen, bladder, kidneys and the pregnant uterus.

Since classical Chinese medical practice does not recognize that germs cause disease, acupuncture needles need not be sterilized. Lack of sterile technique will, of course, cause bacterial infections. In China today, acupuncture needles are stored in alcohol solutions. Since alcohol does not kill the virus which causes infectious hepatitis, contaminated needles can spread this serious infection from patient to patient.

Some acupuncture needles are unusually thin and poorly made. Such needles tend to break. One scientist suffered excruciating pain in an acupuncture experiment when the needle broke off in his foot. An operation was needed to remove the needle.

"Acupuncture anesthesia" may include electrical stimulation of needles placed directly into the sciatic nerve (the main nerve to the leg). If the nerve is stimulated for several hours with high frequency current, permanent nerve injury is almost guaranteed. The nerve fibers may burn, the nerve sheath may tear, and bleeding into the nerve may occur.

Stimulation of the so-called Ya-men point is recommended for the treatment of nerve deafness in children. Scientific study has demonstrated that this technique is useless. The Ya-men point is located directly above the most sensitive part of the human nervous system, the junction between the spinal cord and the base of the brain. A needle entering this sensitive area can produce instant paralysis of arms and legs, stoppage of breathing, and death.

Textbooks of acupuncture therapeutics advise acupuncture for some conditions which can lead to death or serious disability if not properly diagnosed and treated. Among these conditions are high fever and whooping cough in children, tender breasts in women and urinary difficulties in men.

While adequate training in medicine or in acupuncture techniques may decrease the incidence of complications, this is no comfort to the victims of these complications.

Acupuncture Teaching

It is safe to say that most people who practice acupuncture are not adequately trained either in acupuncture techniques or in medicine. This is particularly true in the United States. For what it is worth, in China, formal training in acupuncture requires several years. Many American practitioners, however, have merely attended "quickie" courses, some of which lasted only one or two days. Chiropractors are flocking to these courses in large numbers. One chiropractor who travels around the country teaching "quickie" courses was asked how long it would take to learn a working knowledge of acupuncture. He replied, "I can teach you all you have to know in ten minutes."

Acupuncture Licensing

Some states are trying to control acupuncture abuse by licensing practitioners. While this may drive some two-day wonders out of the marketplace, it will not solve the entire problem. First, licensing of acupuncture may make it difficult for some well-trained physicians to study it. Second, some legal approaches will result in patients being channeled into acupuncture "centers" of dubious value.

The mythology of acupuncture has spread rapidly through our country. It will be difficult to control. Our best hope is that with time, education and gradual appreciation of its worthlessness, acupuncture will be resisted by the public. Then it will pass beyond us, as have its sister quackeries: purging, leeching, bleeding, *et cetera*.

The spread of questionable dental methods is a problem which is affecting many dentists and their patients today. Although this problem is serious, the dental profession has not yet developed an effective way to control it.

BY

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"I've had it!" Bob announced to his fellow dentists and luncheon companions, George and Jack. "I've been a dentist for nearly ten years and what have I really accomplished? Sure, I have a beautiful house, a boat, a motor home and a couple of cars. But what have I done for my patients? I fix them up and pretty soon they're back with more problems."

"I know what you mean," replied Jack. "Day in and day out a guy does dental work only to see the same problems repeating themselves. Wouldn't it be great if we could not only treat a patient's present dental problems, but also teach him how to avoid future ones."

"Yeah! That's what I think," returned Bob. "And not only that," he added, "we need to be more concerned about our patients' total health— not just their dental problems."

Feeling his enthusiasm start to rise, Jack continued, "I've been talking to some guys who have been doing just that! They've expanded their dental practice into a total health clinic which deals with the patient as a whole person. They do all kinds of tests, get into nutrition counseling, exercise, the whole bit! They're more than just dentists—they're really going after changing the total life style of their patients."

"Wait a minute, you guys," interrupted George who had been quietly taking in all that his colleagues were saying, "I'll agree that dentistry can become routine and a bit frustrating at times, but dentistry is still dentistry. I've heard about the dental practice you're talking about, Jack. I know for a fact that those guys are doing a lot of things which are beyond the scope of dentistry. Not only that, a number of things they're doing are pretty questionable scientifically. I'd think twice before getting involved in that sort of thing."

The three dentists were discussing the spread of questionable dental methods—a problem which is affecting many dentists and their patients today. Although this problem is serious, the dental profession has not yet developed an effective way to control it.

The Spread of Misinformation

Not all techniques used by dentists are learned at dental schools. New ideas and techniques are constantly being developed. Dentists who have graduated learn of these in various ways. One of the most common is by going to seminars conducted by other practitioners. Unfortunately, the dental profession has not yet developed a system to evaluate the validity of new methods promoted in this way. Too often, a questionable practice must become a major issue before a scientific body like the American Dental Association Council on Dental Research is prompted to issue a

guiding statement. By that time, its promoters may have a following of dentists who will continue their practices even in the face of ADA recommendations to the contrary.

Information can also spread by word-of-mouth. Frank had been in dental practice for nine years when he bumped into an old schoolmate. "Vitamin E seems to help the gums," his friend said. "Just have your patients chew up a capsule, swish the remains around in their mouths, and floss them between their teeth." When Frank tried it, he thought he could see an improvement and his patients thought so, too. He would ask them such questions as, "Have you noticed that your gums aren't as red as they used to be?" or, "Do your gums bleed less now?" or, "Have you noticed less soreness?"

But some tricky things can happen when a clinician looks for something as subtle and subjective as changes in color and pain. Both patient and doctor tend to see what they hope to find. More important, when improvement does occur, people tend to credit the treatment even though a natural healing process may be responsible. There was a time in medical history when conclusions based upon simple observation were accepted because doctors didn't know better. Clinical observations are still a source of research leads. But with today's more sophisticated science, we know that such data are not trustworthy and must be backed by scientifically designed studies.

A true scientist will base his beliefs on an objective review of the data. His commitment should not be to his current beliefs, but to the pursuit of truth. If he receives better evidence, he should be able to change his position. But some people arrive at their beliefs through *delusion*. This means having preconceived theories which are fixed—so that new knowledge is either altered to fit one's theories or rejected as false. While the true scientist will change his theories of reality to bring them in line with the facts, the deluded investigator will change the facts to fit his theories!

Unfortunately, the deluded or misguided dentist doesn't wear a sign around his neck proclaiming himself to be unorthodox. Nor do his eyeballs give him away by rolling around in opposite directions. Steve Warmheart has been a dentist for fifteen years. He likes what he is but feels that most people do not appreciate just how important dentistry is. He firmly believes that the mouth is the barometer of total body health and that problems in the mouth are not just local but involve the patient's entire system. Steve relates everything he learns about health to this basic principle. Always a persuasive speaker, he can argue convincingly.

No one can change his mind because he is so sure that his fundamental belief is correct. Unhappily, just that—his resistance to change—makes him untrustworthy as a scientist.

Many people believe that the actions of quacks are so preposterous that any thinking person (which we all regard ourselves to be) could easily spot them. This is a fallacy. The dubious dentist is apt to be more personable and charming than is usual. Often he will do an exceptional job of selling himself to his patients. While friendliness, personal concern and charm are not good reasons to be suspicious of a dentist, neither do such traits assure the legitimacy of his theories.

Now let us look at some questionable practices.

Nutritional Pseudoscience

Balancing Body Chemistry. A number of dentists have been touring the country promoting the notion of "balancing body chemistry" by nutritional methods. These men toss biochemical concepts about quite freely in their seminars. Unfortunately, most dentists exposed to their theories do not have the scientific expertise to recognize the falsity of their claims. As a result, nutrition nonsense has been making inroads into the thinking of many dentists. The problem is compounded by the fact that many of these seminars are sponsored by dental organizations—sometimes even for "continuing education" credit. (That means official recognition such as credit toward relicensure requirements.)

The general hope of balancing body chemistry is that dietary practices can prevent a wide variety of "degenerative" diseases. Special diets and expensive food supplements are recommended to achieve "balance," and various laboratory tests are used to determine the biochemical state of the patient. Supporters of these methods greatly exaggerate what nutrition can do. Their patients are absorbing false hope and wasting money on lab tests and food supplements.

Organized dentistry has begun to speak out against this dubious practice. In December 1975, the ADA Council on Dental Research criticized the diet recommended by one of its leading promoters—Hal Huggins, D.D.S., of Colorado Springs, Colorado. The Huggins diet is of the highprotein, low-carbohydrate variety. Having reviewed the evidence with the aid of qualified consultants in the field of biochemistry and human metabolism, the Council concluded: "There is little or no evidence to support the broad claims of the Hal Huggins diet . . ."

Hair Analysis. Closely connected to balancing body chemistry is the technique known as hair analysis. Here a sample of hair is sent to a laboratory for spectrographic analysis. The laboratory report states which

components are "deficient" and recommends specific supplements often the lab's own brand. The practitioner then sells the product to the patient.

The AMA Committee on Cutaneous Health and Cosmetics recently issued a statement concerning the abuse of hair analysis. It pointed out that the state of the body's health may be completely unrelated to the chemical condition of the hair. Hair composition is affected by a person's age, sex and natural hair color. It is also affected by exposure to tonics, hair sprays, shampoos, environmental contaminants in the air, chlorine in swimming pools and so forth.

Hair analysis may have some use in the diagnosis of poisoning by heavy metals (e.g., lead, calcium and mercury), but it is of *limited* value in determining a person's nutritional state. The proper way to measure body stores of trace elements, as well as other nutrients, is by analysis of body tissues and fluids. You should be skeptical of dentists who use hair analysis as the basis for prescribing food supplements.

Computer Analysis. An insightful student of quackery once wrote: "Every new science, every fresh invention, has been capitalized to serve the needs of universal charlatanism. Quackery always takes its cues from the world of knowledge." Abuse of the computer is an excellent case in point. Many dentists are using computers to analyze the diets of their patients. As with the hair analysis scheme, the computer analysis usually leads to a recommendation of specific dietary supplements by brand name. While computer analysis of diet is an interesting concept, investigation has shown that most of its present applications are not reliable. You should be skeptical of dentists who offer this service as a means of prescribing food supplements.

The Anti-Sugar Crusade. Dentists will generally tell you that sugar is bad for your teeth. But research shows that the physical nature of foods and frequency of intake are even more important in producing tooth decay than is the amount of sugar that is eaten. Length of contact with the tooth's surface is the key factor. For this reason, honey, dried fruits, pastries and cereals—which can stick in the pits and fissures of teeth are the foods most likely to produce cavities. Soda pop, a major sugarcontaining product, doesn't have as great a decay-producing effect because it generally doesn't stay in contact with the tooth surface very long.

The dental profession has long sought to teach people not to eat sweets as snacks—especially sticky, gooey sweets. But some dentists seem to have an obsession about refined (white) sugar and attack it with the fervor of evangelists. Many of these anti-sugar warriors have been influenced by the writings of Weston Price, an early 20th century dentist

who imagined that sugar causes not only tooth decay, but physical, mental, moral and social decay as well.

Making a whirlwind tour of the places where primitive people could be viewed, Price examined them superficially and jumped to conclusions. Extolling their health, he overlooked their short life expectancy, high infant mortality, endemic diseases and malnutrition. Praising their diets for not producing cavities, he ignored the fact that malnourished people don't usually get many cavities.

Price pointed out that primitive people who had few cavities when they ate native food developed dental troubles when exposed to civilization. But he did not realize why. Most primitive people are used to "feast or famine" eating. When large amounts of sweets are suddenly made available, they overindulge themselves! Not knowing the value of balancing their diets, they also ingest too much salt and fatty foods.

Price also noted that exposure to civilization had led to an increased incidence of other diseases. But this increase was not caused simply by exposure to the food supply of the civilized world, as Price imagined. Diet was a factor—but it was not merely a matter of eating "civilized" food, but of *abusing* it. Price apparently overlooked other factors which were important in increasing the disease rate. One was exposure to unfamiliar germs, to which the natives were not resistant. Another was the drastic change in their way of life as they gave up strenuous physical activities such as hunting. Alcohol abuse was also a factor.

Today's anti-sugar warriors are highly philosophical in their approach. Many of them believe that dental problems are not caused by local factors in the mouth but are due to problems of the body as a whole. Though lacking evidence to support this idea, they talk as though they have discovered the Holy Grail! Some have even gone to the point of injecting insulin into the gums of their patients to "retard the activity of sugar around the teeth."

The anti-sugar dentists have found strong moral support in the world of the unorthodox and often become heroes to its believers. They are often the same dentists who make public statements against the proven benefits of fluoridation—suggesting instead that elimination of refined sugar from the diet is all that is needed to prevent cavities. Removing refined sugar from the diet is not a realistic suggestion. Even if this could be done, tooth decay would not be eliminated. Many other carbohydrates contribute to the decay process.

The anti-sugar warriors often endorse "natural" sweets as safe for teeth, but scientific studies of snack foods do not support this recommendation. Recently, it was found that an "All Natural Carob Proteen Energy

Bar" was twice as cavity-producing as a Milky Way bar. Unsweetened grape juice proved slightly worse than a Coke, and a "Natural Honey Sesame Bar" was more than twice as cariogenic as a Hershey Bar. It is clear that many of the anti-sugar warriors have been deceived by food faddism.

Dietary Treatment of Cancer. Like all of the health care professions, dentistry has individuals who abuse their dental degrees by promoting unorthodox methods for patients who are hopelessly ill. One such dentist is William D. Kelley who, for many years, operated a clinic and computer laboratory in Grapevine, Texas. Kelley believes that cancer is caused by "inadequate production or utilization of enzymes." In his book, One Answer to Cancer, he claims that cancer can be diagnosed by "simple urinalysis," that it "often can be controlled by diet alone," and that it can "almost always be controlled by proper dosage of enzymes."

Several years ago, I interviewed a middle-aged woman who had consulted him. During surgery, doctors had discovered a large cancer of the pancreas which had spread to her liver. Feeling desperate, the woman turned to Dr. Kelley who ran a computer analysis of her case. His marvelous machine clicked out the information that her tumor was 50 months old, was growing, and was caused by a mineral deficiency. It would take 11 months to cure and 19 months to regain nutritional balance. The patient returned home with a booklet full of menus and several hundred dollars poorer—but loaded with hope.

After many years of difficulty with various federal and state law enforcement agencies, Kelley relocated to the State of Washington. His faulty notions continue to be promoted in various publications and by organizations which promote unproven cancer remedies.

Other Bizarre Practices

Some dentists use pendulums to test for "food compatibility." Some perform dental procedures under pyramid-shaped structures which they believe will reduce the incidence of infection. Some dentists employ what they call "Chinese Medicine"—including herbalism, acupuncture, vitamin therapy and whatever else they wish to throw in. Others are dabbling with body "auras," Kirlian photography, black box devices, iridology and the like.

One of the strangest of the unproven methods is called "Applied Kinesiology," a method based on the theory that muscle imbalance is a major cause of disease. According to a major kinesiology textbook, gallbladder problems may be related to weakness of a certain leg muscle, indigestion may be related to another leg muscle, liver disease is related to a shoulder

muscle, and so on. Muscles are tested for supposed "strength" or "weakness," and acupressure, massage, food supplements and other dietary methods are used to correct the supposed imbalances. Applied Kinesiology is also referred to as "Behavioral Kinesiology." It was developed primarily by chiropractors but is being promoted to other practitioners as well. Dentists are also being taught "Dental Kinesiology," a system which regards muscle testing as useful in locating diseased teeth, determining sensitivity to tooth filling materials, restricting orthodontic treatment, constructing oral devices, and more. None of this has proven value, but it is being sold to the public just the same.

Public Protection

Your primary protection from dubious dentistry should come from dental organizations at the local, state and national level. Unfortunately, not all of these groups have an effective means of screening out questionable practices *before* they have been foisted on the public. The American Dental Association Councils on Research and Therapeutics are working on this problem, and hopefully will find a solution in the near future.

Another source of accurate information should be the nation's dental schools. It is sad to report, however, that even a few schools have been caught up in the epidemic of delusion which is so rampant in dentistry. One of the most popular spokesmen of the health food movement is Dr. Emanuel Cheraskin—who, until recently, was chairman of the Department of Oral Medicine at the University of Alabama. Unfortunately, his academic position lent credibility to his unscientific pronouncements.

Cheraskin's main message seems to be that nutrition is of exceptional value in preventing and treating diseases—especially those which are usually thought of as hopeless. Although he lacks formal training in nutrition, Cheraskin does not hesitate to pontificate on this subject to other health professionals. With folksy sarcasm, he attempts to create an illusion that only he and other "nutritionally oriented" practitioners know what's really happening in the disease process. He criticizes orthodoxy and praises megavitamin therapy. He feels that the food we eat is sadly devitalized as it goes from "garden to gullet," and that ideal nutrition is impossible without vitamin supplementation. He bases broad assumptions upon inadequate research and uses testimonials as evidence of the effectiveness of his nutrition programs.

In his latest book, *Psychodietetics*, Cheraskin admits that he has failed to convince most health professionals (who are qualified to evaluate his claims) and thus takes his case to the public where he expects a "more enthusiastic response." But his books are widely read by dentists, many of whom regard him as a hero.

We hope this chapter will help you as a consumer to recognize current situations in which your health or your pocketbook may be in jeopardy. We also hope that dentists who read this will become more wary of certain dental promoters. Recognizing quackery in all its forms is a formidable task for anyone. Its methods usually seem so honorable, its promoters so convincing. Its methods or materials may even have legitimate applications in some other ways. Sometimes the only dividing line between quackery and hopeful new ideas lies not in what is done, but in how much is promised by the doer.

Modern dentistry is striving for an ideal which places its highest priority on preventing dental diseases by identifying causes and teaching patients how to avoid them. The concept of treating the dental patient "as a whole person" is also rapidly gaining acceptance. Certainly, most dentists who talk about prevention are not promoting quackery. On the other hand, it is clear that many dentists are going overboard in reaching for these ideals.

The motives of such dentists are not necessarily in question. But good intentions are not enough. If dental science is to advance, it must patiently obey the strict rules by which all science advances. And if the profession of dentistry is to remain reputable, it must find a way to control the spread of dubious methods.

22

The Eye Exorcisors

Don't throw away your glasses.

BY

JACOB NEVYAS, Ph.D., Sc.D. Professor Emeritus of Chemistry Pennsylvania College of Optometry The mistaken belief that poor eyesight can be cured by special eye exercises has been held by many persons since ancient times. This belief was brought to its highest state of fruition by a one-time reputable physician, William Horatio Bates, M.D., who published a volume in 1920 entitled *The Cure of Imperfect Eyesight by Treatment Without Glasses*. The following account is a summary of the work of Dr. Bates and his many followers as described in a book by the late Dr. Philip Pollack, a prominent optometrist of New York City. Entitled *The Truth About Eye Exercises*, it was published in 1957 and is now out of print.

Pollack's book considers Dr. Bates to have been a sincere individual with an impressive record. He was born in Newark, New Jersey, in 1860, graduated from Cornell University in 1881 and from Columbia University's College of Physicians and Surgeons in 1885. For the next seven years, he practiced in New York City as an ethical physician. He specialized in eye, ear, nose and throat diseases and worked in a number of prominent hospitals. In 1902, however, Dr. Bates fell victim to amnesia and disappeared from view. His wife found him seven weeks later working as a doctor's assistant at the Charing Cross Hospital in London, England. Two days later he vanished again and was missing for eight years, during which time his wife died. In 1910, Dr. Bates was found practicing medicine in Grand Forks, North Dakota, and was persuaded to return to New York, where he resumed practice and married again.

Early in his career, Bates displayed an interest in problems of vision. In 1891 he published an article in a medical journal on the cure of nearsightedness by eye exercises. In his office, he taught patients to stare into the sun and to relax their eyes by covering them with their palms. He soon became obsessed with his peculiar theories of vision.

In 1917, Bates teamed up with Bernarr Macfadden, a nationally known food faddist who published the magazine *Physical Culture*. Together they offered a course in the Bates System of Eye Exercises for a fee which included a subscription to the magazine. This venture met with considerable success and led many readers to believe in the Bates System. However, the big impact of Bates' work materialized after publication of his book. This book attracted large numbers of charlatans, quacks and gullible followers who then published scores of unscientific books and articles on the subject of vision. Extolling the Bates System, these authors urged readers to "throw away" their glasses. Some of these writers established schools which still flourish today.

Contrary to scientific fact, Bates taught that the dimensions of the eyeball and the state of the crystalline lens have nothing to do with poor eyesight. All defects in vision, he said, are caused by eyestrain and ner-

The Eye Exorcisors

vous tension. To achieve perfect vision, just relax the eyes completely. Bates warned that eye glasses cause the vision to deteriorate. He also deplored the use of sunglasses. Bates claimed his exercises could correct near-sightedness, far-sightedness, astigmatism and presbyopia (the inability of older people to focus their eyes on nearby objects). They could also cure such diseases as cataracts, eye infections, glaucoma and macular degeneration. His exercises were as follows:

1. *Palming:* This is the principal procedure of the Bates System. The patient must first look intently at a black object, then close his eyes and recall to mind its blackness. This procedure supposedly relaxes the eyes, relieves eyestrain, corrects vision to normal and eliminates pain during surgery.

2. *Shifting:* By shifting his gaze continually from object to object, the patient will improve his vision.

3. Sun Gazing: Staring directly into the sun, the patient will benefit from the "warmth of light."

4. *Remembering Blackness:* Presbyopia will be cured when the patient closes his eyes and recalls the condition of "blackness."

It should be obvious that these exercises cannot influence eyesight disorders as Bates claimed. Near-sightedness, far-sightedness and astigmatism result from inborn and acquired dimensions of the lens and the eyeball. Presbyopia is the result of rigidity of the lens. As for eye diseases, the only thing the exercises can do is delay proper medical or surgical treatment and result in permanent impairment of vision. It should also be noted that all eye doctors caution patients against looking directly into the sun. Such a practice can cause permanent damage to the macula, the most sensitive and important area of the retina.

Dr. Bates died in 1931. His office and teaching practices were taken over very successfully by his wife with the help of Dr. Harold M. Peppard. Mrs. Bates had worked with her husband for a number of years and Dr. Peppard was an ardent advocate of the Bates System. In 1944, he published a book called *Sight Without Glasses*. Many other writers of questionable knowledge followed Bates' path. One of the best known was Gayelord Hauser, popular food faddist and favorite of Hollywood, who in 1932 published *Keener Sight Without Glasses*. By combining eye exercise and diet theories, Hauser could further the sale of his own dietary products.

One convert to the Bates System deserves special notice because he had no financial interest in it. This was the well-known British novelist, Aldous Huxley. In 1942 Huxley wrote *The Art of Seeing*, claiming that he personally had been helped by the System. He had been a patient of Mrs.

The Eye Exorcisors

Margaret Dorst Corbett, who wrote four books on the system. Mrs. Corbett also operated two schools for teaching Bates methods to patients and other practitioners. In 1941 Mrs. Corbett was charged with violating the Medical Practice Act of California for treating eyes without a license. Her defense was that she taught only eye relaxation exercises and did not impinge upon the practice of medicine or optometry. She was acquitted and her acquittal met with a large wave of popular approval. A similar case is that of Miss Clara A. Hackett who operated schools in Los Angeles, San Diego and Seattle. Indicted in New York in 1951, she too was acquitted of practicing medicine and optometry without a license.

Many other authors have reached large audiences with their books on the Bates System. Most prominent among them are Bernarr Macfadden (*Strengthening Your Eyes*, 1924); Cecil S. Price (*The Improvement of Sight*, 1934); and Ralph J. Mac Fayden (*See Without Glasses*, 1948). There has even been a mechanical device on the market known as the "Natural Eye Normalizer" for massaging the eyelids to cure all complaints of vision!

It is difficult to understand the widespread popularity of the Bates System unless one considers that its followers make up what is essentially a cult. Its practitioners are *faith healers* who appeal to the gullible, the neurotic, the highly emotional and the psychosomatic. Even the author Mac Fayden admits that the System's results are 90% "mental."

I know of a near-sighted woman who used to travel from Philadelphia to New York City once a week to see a Bates practitioner. She expected that his treatment would eliminate her need for thick glasses. Each trip cost her a day's wages plus train fare, lunch and the practitioner's fee. For several months an optometrist friend of mine tried to convince her that she was wasting her time and money. He finally persuaded her to ask the practitioner what progress she was making and how long it would take before she could change her glasses. At the same time, the optometrist gave her a sealed envelope to open at the end of her next visit in New York.

Questioned by the woman, the practitioner replied, "I was just about to tell you. We have decided that we can improve you no further. You should return to your optometrist for further care." Opening the envelope, the woman saw that the optometrist had predicted the Bates practitioner's reply almost word for word! She finally saw the light.

There is one *rational* method of eye training and eye exercises which must not be confused with the system of Bates and his followers. This is called "Orthoptics." It is used to correct "crossed eyes" and amblyopic or "lazy" eyes. Crossed eyes are caused by an imbalance of the muscles which control eye movements. This condition can often be improved by orthoptics or surgery or a combination of the two. If muscles are out of balance, the function of one eye may become suppressed to avoid double vision. The suppressed eye is known as an "amblyopic" eye. Covering the good eye can often stimulate the amblyopic eye to work again to provide binocular vision for the patient.

Remember—no type of eye exercise can improve refractive errors or cure any diseased conditions within the eye itself.

Wolves in Sheep's Clothing?

The term "holistic" is being used with increasing frequency in both orthodox and unorthodox circles. However, considerable confusion surrounds it use.

> WALLACE I. SAMPSON, M.D., F.A.C.P. Associate Clinical Professor of Medicine Stanford University School of Medicine

The word "holistic" was coined in 1926 by Jan Christiaan Smuts, philosopher and first prime minister of South Africa, in his book *Holism and Evolution*. Smuts observed that objects have properties which cannot be predicted from mere knowledge of their parts. An automobile, for example, would not be recognizable if its components were assembled randomly instead of by design. In addition, the full nature of automobiles cannot be appreciated without considering their role in modern life both in transportation and in pollution.

Promoters of "holistic medicine" (also called "wholistic medicine") believe that illnesses should not be studied apart from the people who have them. Medical attention should therefore not be limited to current physical problems but should also be directed toward emotional factors and lifestyles. Good physicians have always tried to understand their patients as whole beings. But the holistic movement is now being promoted *as something new* by unorthodox practitioners, crusading laymen and a few hundred physicians. The promotion rests on an elaborate but loosely defined philosophy which has some scientific basis; but a close look will show that much of it is irrational.

Holistic Philosophy

A good way to begin our inquiry is to examine some thoughts of prominent spokesmen as expressed in *Wholistic Dimensions in Healing—A Resource Guide*, edited by Leslie J. Kaslof, founder of the National Council of Wholistic Therapeutics and Medicine. This book describes about 50 types of healing approaches and lists 1,146 sources of holistic treatment and/or information. According to Mr. Kaslof, "The ultimate responsibility for health maintenance lies within each of us. By being in contact with our own healing processes, we take the first step beyond the need for the tools of healing—beyond the need for therapy and technique." After noting that a listing in his guidebook "in no way constitutes an endorsement or a recommendation," he adds that "since many of the terms used in the fields included do not have generally agreed upon meanings," the book contains no glossary of terms. Mark Bricklin, editor of the health food publication *Prevention*, is one of five individuals whose help in soliciting entries is acknowledged.

The general introduction to *Wholistic Dimensions in Healing* is written by Rick J. Carlson, J.D., an attorney who is Assistant Adjunct Professor of Medicine, Boston Medical School, and Senior Research Associate of The Institute of Medicine, National Academy of Sciences. He states:

The public should know what the options are in regard to their health. The day is past when we could confidently turn to mod-

ern medicine for all or even many of our health needs. By most estimates . . . medicine influences most indices of health only to about 10 percent. The remaining 90 percent is dependent on environmental, social, and cultural factors over which doctors and hospitals have little, if any, control . . . People are now, to an unprecedented degree, looking for alternatives to what some perceive as a dinosaur—the modern medical system.

But he also notes that "many practitioners of new wholistic approaches . . . in their attempt to create a market for their wares, put the moneymotivated physicians to shame . . . As in all areas, the buyer must beware."

Another introductory passage is written by Jerry Green, J.D., an attorney who "specializes in holistic medicine" and is a faculty member of the Holistic Life Foundation, San Francisco, California. According to Mr. Green,

In wholistic practice, pathology is seen as a manifestation of stress, weakness or imbalance, and the goal is to fortify the system as a whole . . . The physician's training and manner of thinking represent a formidable barrier to comprehending the purpose of wholistic practice . . . Proponents of wholistic healing are raising a powerful backlash against conventional medical practice.

The above passages contain at least five themes that appear central to the current philosophy of holistic medicine:

- 1. Individuals have primary responsibility for their health.
- 2. General measures, such as "reducing stress" and "correcting imbalances," can make people far less susceptible to disease.
- 3. Medicine is too rigid and impersonal.
- 4. Medicine is just one healing system among many.
- 5. "Alternative" approaches, though undefinable, unendorsable and unproven, should be promoted vigorously.

Let's look at these themes more closely.

Something Extra?

It is well known to health scientists that smoking causes cancer, that overeating and excessive alcohol intake are dangerous, that exercise is good for people, that use of safety belts can reduce the incidence of serious automobile injuries, etc. To the extent that holistic promoters persuade their followers to adopt better health practices, the movement will accomplish some good. As far as I can see, however, holistic promoters offer no useful addition to what good physicians have been doing quietly all along.

Many holistic practitioners see disease as primarily caused by stresses and "imbalances." Although stress is a factor in many ailments, it is by no means clear that stress-reduction techniques advocated in the name of holism are actually effective in preventing disease. The concept of "imbalances" is even more fanciful. Acupuncturists claim to balance "life forces," chiropractors claim to balance spines, some unorthodox dentists claim to balance "body chemistry," kinesiologists claim to balance muscles, and various other healers claim to balance people's spiritual, mental and physical "systems" to bring them "into harmony with nature." A common goal is a state of optimal health or "wellness" that goes beyond the mere absence of disease.

Holistic promoters tend to view nature as harmonious and benign. They depict primitive man as living in a utopian state which can be ours if we return to "natural" living. They are correct that many people feel negatively toward our health care system, but this is a very curious phenomenon. Polls show that most people *are* satisfied with their own medical care. Their antagonism is toward the "system"—which they view as overpriced or too self-serving. It is also true that more people are turning toward "alternative" methods. But disillusionment with medicine is by no means the main reason for this (any more than dissatisfaction with astronomy is the primary cause of astrology's popularity). Many people have hopes that cannot possibly be fulfilled by science.

Holistic proponents make a serious error by pretending that all of medical science is one system and then listing various others as separate but equal systems. They may call modern medicine "Western medicine" to distinguish it from "Eastern medicine." Or they may call it "allopathic medicine," a term coined almost two centuries ago by Samuel Hahnemann, the founder of homeopathy. In Hahnemann's day, allopathy included cupping, bloodletting and many other primitive methods then considered orthodox. Today, having incorporated the scientific method, allopathy is no longer a school of thought. It includes all methods of treatment which are sensible, reliable and reproducible from one practitioner to another. Holistic advocates attempt to reduce its significance by defining it as one approach. A wide variety of other approaches are then promoted as "alternatives." Here's a brief look at some of them.

Chinese Medicine

Acupuncture defines the body according to systems with functions that have no similarity to what is actually known about body physiology.

These systems are said to be affected by color, weather, emotion and other factors. Meridians and acupuncture points on the surface of the body, which supposedly refer to internal organ functions, cannot actually be seen or measured. They are part of the ancient Chinese way of looking at the body, health, disease and nature. It is claimed that stimulation of acupuncture points can benefit organ systems and return their functions to normal. The same claims are made for *acupressure*, but no needles are used.

Herbalism involves the use of thousands of substances whose pharmacology may not be known to the herbalists who prescribe them. Herbs are promoted with the mystique of being "natural" and of possibly containing useful substances as yet undiscovered by science. Such promotion overlooks the fact that drug companies routinely test large numbers of naturally-occurring substances and are quick to investigate new rumors about folk remedies. Many herbal remedies exert no pharmacological effect upon the body. Others contain potent drugs, some of which can be toxic.

Meditation

Most of the different meditation techniques are derived from ancient oriental efforts to obtain transcendent states of consciousness. Highly trained mystics can alter their heart rate, blood pressure, body temperature and other functions which are not ordinarily subject to much conscious control. This has encouraged hopes that medical benefits can result from learning these techniques. Indeed, there have been some benefits from yoga and meditation. Serious practitioners can reduce their blood pressures a little—about 10 mm systolic and 5mm diastolic—while using these techniques on a regular basis. Expectations of doing without medication and medical care by meditating are unrealistic, however.

O. Carl Simonton, M.D., a radiation therapist in Texas, believes that cancers may be affected by meditation. He theorizes that the brain can stimulate endocrine glands to inspire the immune system to attack cancer cells. While in training, Simonton noted that some cancer patients who had "positive attitudes" seemed to recover more quickly and live longer than those who seemed less motivated for treatment. Based on this observation, he and his associates developed a system for motivating "positive attitudes" by having patients meditate and "visualize" their cancers degenerating under treatment. Some imagine the killing effects of their immune systems on the cancers. Although this method may appear harmless, it may encourage some patients to abandon effective care.

More than 400 published studies have explored the influence of the

mind on cancer and vice-versa. So far no clear relationship has been shown between emotions, personality factors, stresses and cancer. The Simontons have done some studies, but they are not well designed. If stress were a major cause of cancer, every great tragedy (such as war) would be followed by an outbreak of cancer. In all of recorded history, no such observation has been made.

Homeopathy

Homeopathy is a system of treatment which uses a wide variety of herbs, drugs and other chemicals in infinitesimal doses. It is based on the theory that if a substance can produce symptoms of an illness in healthy persons, a tiny amount of the substance can cure that illness in a sick person. When substances are so dilute that they could not possibly be effective against anything, homeopathic practitioners may still claim that an "essense" of the active ingredient persists even though the substance itself is no longer present. Homeopathy enjoyed some success during the 19th century when its methods (the equivalent of doing nothing) were less dangerous than some of the other treatments of that period. Today its use is utter nonsense.

"Separate and Distinct" Healing Arts

Chiropractic is based on the theory that most ailments are caused by spinal problems which can be corrected by spinal manipulation. Its scope is therefore unlimited. Some chiropractors, called "straights," limit their treatment to manipulation. Others, called "mixers," use nutritional approaches and a variety of physical therapy methods in addition to manipulation.

Naturopathy is a system of healing that relies solely on "nature." Naturopaths believe that the basic cause of disease is the violation of nature's laws. Diseases are viewed as the body's effort to purify itself, and cures result from "increasing the patient's vital force by ridding the body of toxins." Naturopathic treatment modalities include "natural food" diets, vitamins, herbs, tissue minerals, cell salts, manipulation, massage, remedial exercise, diathermy and colonic enemas. Radiation may be used for diagnosis but not for treatment. Drugs are forbidden except for compounds that are components of body tissues.

Naturopaths, like chiropractors, believe that virtually all diseases are within the scope of their practice. They are licensed in seven states and the District of Columbia. The number of practitioners is unknown but has been estimated to be a few thousand, most of whom practice in nonlicensing states. There may also be a few thousand chiropractors who practice naturopathy.

Iridology is a system of diagnosis devised more than 100 years ago by Ignatz von Peczely, a Hungarian physician. It is based on the premise that each area of the body is represented by a corresponding area in the iris of the eye (the colored area surrounding the pupil). States of health and disease can thus be diagnosed according to the color, texture and location of various pigment flecks in the eye.

A scientific test of iridology has been reported in the September 29, 1979 Journal of the American Medical Association. Three iridologists, including Bernard Jensen, D.C., the leading American proponent, examined photographs of the eyes of 143 persons in an attempt to determine which ones had kidney impairments. (Forty-eight had been so diagnosed on the basis of creatinine clearance tests, and the rest had normal kidney function.) The three iridologists scored no better than chance.

Applied *kinesiology* is a system of diagnosis and treatment based on the theory that every organ dysfunction is accompanied by a specific weak muscle. Kinesiologists also claim that nutritional deficiencies, allergies, and other adverse reactions to food substances, can be detected by placing substances in the mouth so that the patient salivates. "Good" substances will lead to increased strength in specific muscles, whereas "bad" substances will cause specific weaknesses. Treatment of muscles diagnosed as weak may include special diets, food supplements, acupressure and/or spinal manipulation. Most practitioners of applied kinesiology are chiropractors.

Reflexology is a system of treatment which claims that pressure on the hand or foot can relieve the symptoms and remove the underlying cause of disease in other parts of the body.

Polarity therapy supposedly "coordinates diet, exercise and techniques of body manipulation to increase and balance the flow of vital energy for the physical, emotional and mental well-being of the individual." According to Pierre Pannetier, director of the Polarity Center in Orange, California, "Love and understanding are the chief qualifications for applying the art . . . Teachers are the mere channels; everyone has the power to heal himself."

Practitioners of "*medical*" massage claim that "Disorders in the internal organs, acting through the intervention of related nerves, cause pain, numbness, chilling and stiffness of the skin and muscles. By relieving these symptoms the internal organs can return to sound condition."

Wolves in Sheep's Clothing?

Negative Ion Therapy

Ions are atoms or groups of atoms bearing electrical charges. Positive ions lack one or more electrons; negative ones have a surplus of electrons. Polluted air may be lower in negative ions and higher in positive ones. Weather conditions can also affect ion concentrations. According to folklore, an excess of positive ions can cause a variety of physical and emotional problems.

Proponents of negative ion therapy (aeriontherapy) claim that illness can be prevented by neutralizing positive ions with negative ones produced by small generators. But negative ion generators cannot actually produce enough ions to change the air in a room effectively. Ions have short half-lives; their energy dissipates rapidly as they leave the generator. Scientific studies carried out during the past twenty years have failed to support the claims of negative ion proponents. Moreover, the generators can produce toxic amounts of ozone.

Nutritional Quackery

Holistic proponents espouse a wide variety of nutritional approaches. Many believe that deficiency states are common and that faulty diet is the major cause of degenerative disease states. A common goal of holistic promoters is to find "the amounts of nutrients that will provide the utmost in health." Many use hair analysis and other questionable diagnostic tests. Most recommend high dosages of vitamins and minerals for the prevention and treatment of disease.

There is no doubt that diet plays a role in the production of some diseases. Overweight is certainly a widespread problem, and diet may well be related to the development of arteriosclerosis. But holistic promoters go far beyond what is proven scientifically.

Holistic Organizations

Professionals who consider themselves "holistic" have been forming interdisciplinary clinics that offer services and professional organizations which may enhance their status. The most significant such organization is the American Holistic Medical Association (AHMA). Formed in 1978, the AHMA has a few hundred members, all of whom are medical or osteopathic physicians. Its major goal is to educate health professionals in the principles of "medicine of the whole person." It publishes a journal and a monthly newsletter, and sponsors week-long educational conferences three times a year. Subjects covered at the conferences include: acupuncture, homeopathy, spiritual well-being, stress reduction, faith healing, rolfing (a method of "aligning" the body by vigorous manipulations), psychosynthesis, nontraditional methods of diagnosis, metaphysics, alignment through music, psycho-electronics, renewal and personal awakening, scientific medicine, and holistic treatment of inoperable cancer (by Ernesto Contreras, M.D., the Mexican physician who is the leading dispenser of laetrile!).

Two things are remarkable about the AHMA meetings. First, some of the program participants are reputable educators, including medical school deans. Second, the meetings have been endorsed for educational purposes by several major professional organizations.

To qualify for the "AMA Physician's Recognition Award," a physician must complete 150 hours of continuing education every three years. Sixty hours must be programs rated "Category I" by an accrediting agency approved by the American Medical Association. The purpose of the accreditation system is to ensure quality educational programs upon which physicians can rely. For the most part, the system is working well—most accredited programs are sponsored by medical schools and teaching hospitals.

However, despite the questionable nature of many of its topics, AHMA conferences are fully accredited for Category I credit. The meetings and similar ones sponsored by other holistic organizations, have also received approval from dental, nursing and other professional organizations. It has been suggested that lists be developed of treatment approaches and individuals whose lectures could not be certified for continuing education credit. But sponsoring organizations fear that creation of such lists would trigger expensive lawsuits.

In addition to its educational goal, the AHMA may be aiming to protect its members from legal difficulty when they use unproven methods: According to a letter from an attorney published in an AHMA newsletter:

There is case authority that suggests that if a physician can show that he has used a method of treatment which is approved by at least a respectable minority of medical opinion, the burden of sustaining an action against the physician shifts to the accuser . . . to demonstrate that the method in question was applied in a negligent manner. In the event that the AHMA were to establish a sound membership base and establish official position on various types of treatment modalities, this provision might come into play and be used to the benefit of physicians who were employing alternative therapy sanctioned by the Association.

At one time in the past, the holistic label had a valuable and specific

meaning. Today, however, it has become a banner around which all manner of questionable practitioners are rallying. It appears to me that the concept of holism has been irretrievably corrupted by confused practitioners and promoters of quackery. The word "holistic" and its associated slogans should therefore be abandoned by scientific practitioners.

Although many observers have tried to identify personality traits that make individuals susceptible to conversion, the fact is that almost everyone can be vulnerable under the right circumstances.

BY

JOHN G. CLARK, JR., M.D. Assistant Clinical Professor of Psychiatry Harvard Medical School The new cults are increasingly dangerous to the health of their converts and menacing to their critics. Estimates of total U.S. membership extend anywhere from 3 to 10 million people involved in more than 3,000 groups ranging in size from two or three members obeying a guru to many thousands. It is now a fairly common experience to know someone who has had a family member join a cult.

Most of the deviant cults which have been studied have been composed primarily of middle-class or upper middle-class converts. Whether political or religious, their belief systems are uniformly absolutist, intolerant, polarized, provocative, simplistic and certain. However, it is not the private beliefs of the members of these groups that matter—cult doctrines vary enormously. It is the behavior of the cultists toward those outside their worlds and the effects on the health of both the involved persons and their families that deserve our attention.

Goals of Cults

The destructive cults are usually first-generation entities with living leaders. Their primary goals are expansion through rapid, aggressive conversion and the amassing of money. They are usually self-styled as religions for tax advantages and other first amendment privileges. Cult members are expected to bend their wills and yield control of their minds to the group and its leaders. Failure to do so is punished or corrected. Banishment is the ultimate sanction in some groups. In others it may be death.

Cults rarely launch truly charitable projects as they claim, largely because needy persons outside their groups are seen as different and undeserving. It is not unusual for cult members to raise up to \$400 per day by begging or soliciting for nonexistent charities.

Susceptibility to Conversion

A great variety of persons aged from early teens to the 50's, with a wide variety of personality strengths and weaknesses, have entered these groups. The cults themselves select a segment of the marketplace and as with any new enterprise, thrive only if they develop the technical skills to build a core group and maintain internal congruity. Although many observers have tried to identify personality traits that make individuals susceptible to conversion, the fact is that almost anyone can be vulnerable under the right circumstances.

My studies of more than 60 persons in various stages of cult involvement show that about 60 percent of them were substantially disturbed and unhappy for many years. Many of these people had sought conver-

sions actively and repeatedly. The other 40 percent, however, were essentially normal, maturing persons. Their susceptibility to conversion was the result either of aggressive manipulation by a proselytizer or of a normal, painful crisis of maturation. Dr. Margaret Singer, Professor of Psychiatry at the University of California, who has interviewed more than 300 cult-involved persons, estimates that 75 percent of them were psychologically normal.

The Conversion Process

An individual's involvement with a cult typically begins with an invitation to attend a lecture, a course or a social gathering. Further invitations will then be issued to attend a weekend seminar, a workshop or a spiritual retreat. Recruiters, who generally misrepresent their intentions, may not reveal their organizational ties. They may display false affection and radiate spiritual fulfillment which can have considerable impact on the potential recruit.

"I didn't know who they were until I had signed up for the 21-day workshop—and by then I didn't care," a 19-year-old former cult member told me. "From the first moment, she was all over me—touching, flattering, questioning. Even when I went to the bathroom. I had been kind of depressed. My girl had told me to get lost and the first friendly voice was so welcome that I accepted her invitation to the center."

Once contact is established, highly programmed behavioral techniques are used to narrow the subject's attention to the point of becoming a trance. Loss of privacy, lack of sleep, new language and continuous control of excitement level amount to an onslaught of information that sustains the trance-like state. Throughout this period of focused attention, new information is absorbed at an accelerated rate and rapidly becomes integral to the available mechanisms of the mind. As a result, the convert becomes dependent on this new environment for definitions of reality.

"When I was given knowledge, I gave up my mind," said a 22-year-old engineering student. "That's the kind of logic we all accepted . . . I was ready to believe everything I'd known was crazy all my life. They could tell me anything, or ask me to do any stupid thing and I'd jump and feel great."

At this stage, the group controls not only behavior but also thought content by means of confessions, training and conditioning. To think wrongly is "satanic" and punishable by psychosomatic reactions such as headaches, gastrointestinal symptoms, depressions and panic states.

Effects of Conversion

The nervous system may be so profoundly affected by the conversion process that menstrual periods may stop and beard growth may slow down considerably. While in this state, personality changes drastically, a fact that often terrifies parents. Converts often seem drab and dreamy outside the group, stereotyped and somewhat expressionless when discussing anything other than their new experience. They lack humor and richness of vocabulary. The devices of expression—irony, metaphor and delight in the use of abstraction—are gone. Many converts report hallucinations and experience group-validated delusions as well as nightmares. The sense of current history is quickly lost. If challenged, converts may become excited or even violent, but at best will answer difficult questions with memorized clichés.

Rapid conversion, brought about by a skillful and determined group or individual, results in a sustained state of "dissociation" in which a large share of one's lifetime of memories is switched off and quickly replaced by the overwhelming presence of the cult itself. Because the guiding lessons of past experience are no longer available, the personality is drastically and rapidly remade. The resultant mental state, rigid and obedient, is close to chaos.

Most converts are used for recruiting and begging. They work extremely long hours to meet impossible goals. Some have reported sleeping less than four hours nightly for many years. They are often aware of their prior personalities through dreams or shadowy memories.

Almost all cults embrace many forms of magic and reject scientific linear thinking. Thus they reject modern medicine and consider physicians to be enemies. Faith healing is not uncommon. Even those cultists who occasionally use medical facilities may be extremely reluctant to seek this help or pay for it. Many emergency room physicians have observed severe cases of physical neglect, including malnutrition, untreated diabetes, broken bones that had been prayed over, and infectious diseases that were the result of communal living. Therapeutic compliance and follow-up are often poor.

Many former cult members illustrate the seriousness of living in a prolonged dissociative state. They may appear mentally preoccupied ("floating") and may remain very suggestible. In the January 1979 issue of *Psychology Today*, Dr. Singer points out that depressions, loneliness and indecisiveness may seriously interfere with a return to ordinary living. A simple decision such as choosing socks may take an inordinate amount of time and energy. Ex-cult members are often aware of a double personality. They may feel painfully guilty both for hurting their parents

and for leaving their "loving" cult family They may also have frequent illnesses.

A few cults resort to blackmail. One former member, who had been assured that conversations with cult leaders would be confidential, "had told everything, including every fantasy I could recall or invent . . . When I left, I found that they were willing to use all of this against me in order to prevent me from hurting them."

Danger to Society

Cults of various sorts have been useful to society as agents of change. In such roles, as antagonists to the status quo, they may very well serve as a leavening in a stagnant culture. There is no question of their right to stand against other opinions; nor should there be any question of the right of others to stand against them. It is through this kind of confrontation that change may be negotiated safely. But in groups organized in the ways I have just described, there is an inherent danger, from their techniques and from their doctrines of deviancy, that they can become destructive for the sake of destruction or intolerant beyond the capacity to negotiate. At that stage they are willing to injure other human beings without scruple. Burned-out rejects of these groups are beginning to be seen. Some have apparently disappeared completely—their parents are unable to find out whether they are alive or dead. Others who have dropped out of the groups are simply unable to use their minds as tools of survival. They are supremely difficult to treat; they are mutilated.

Professionals who have studied the wide range of dangerous cults are not surprised by the Guyana massacre or by the increasing violence of other groups. Political manipulations, amassing of firearms, and other menacing cult behavior have been reported recently in other countries. It is clear that the destructiveness of cults must be taken seriously and not condoned.

Editor's Note:

The following organizations offer help with the problems of cults:

Citizens Freedom Foundation P. O. Box 7000-89 Redondo Beach, CA 90277 Telephone 213-540-2642 (Provides detailed information and advice about cults. Subscriptions to its newsletter are \$10/year.)

American Family Foundation P. O. Box 343 Lexington, MA 02173 (Provides information on legislative and legal matters pertaining to cults. Its newsletter, *The ADVISOR*, is sent to donors of \$25 or more.)

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The trouble with questionable mental health treatment is not merely lack of efficacy. A disillusioning experience can cause the patient to abandon further effort to obtain help or can trigger a personal disaster such as suicide.

BY

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc.

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Although excellent help is available for the treatment of emotional problems, finding a suitable therapist can be very difficult. A wide array of practitioners exists, many of whom are incompetent. This chapter outlines the various types of practitioners, their treatment methods, and some guidelines for distinguishing between proper and improper treatment.

Psychiatric Treatment

For purposes of discussion, psychiatric treatment may be divided into two types: "organic" and "psychodynamic." The organic model is basically an authoritarian one in which the patient is a passive recipient of the treatment. The assumption is often made, or at least implied, that the patient has a physical or biochemical abnormality that needs to be controlled or corrected. The organic therapist diagnoses a "mental illness" and prescribes treatment for the patient: a drug, a form of convulsion, or (very rarely) psychosurgery.

The psychodynamic model assumes that the patient's mental state is not the result of biochemical factors but has been caused by past and present experiences and feelings. Using a primarily conversational approach, therapist and patient explore the patient's feelings and behavior, seeking ways to alter them by persuasion, environmental manipulation, and/or the development of new ways to react.

In actual practice, there is no sharp dividing line between the two philosophies, and most psychiatrists use aspects of both in their approach to patients.

Drug Therapy

Drugs are commonly prescribed for the treatment of anxiety states, depressions, psychosomatic disorders and psychoses.

Major tranquilizers are used primarily to treat psychotic reactions (thought disorders manifested by hallucinations, delusions and/or loss of contact with reality). Since the early 1950's, these drugs have brought about a revolution in the field of psychiatry. Many patients who otherwise would have required lengthy (or even life-long) hospital stays are now able to improve or recover quickly. In addition, large numbers of previously institutionalized patients have been able to return to their communities.

Minor tranquilizers are used for the treatment of anxiety states and psychosomatic disorders. Americans have been accused (with some justification) of being a "drugged society" because of their high use of alcohol and minor tranquilizers such as diazepam (Valium) and chlordiazepoxide (Librium). Valium is the most prescribed drug in the United States today, and Librium is not far behind. Although most people who receive major tranquilizers probably need them, it is clear that physicians often prescribe minor tranquilizers or antidepressants when it would be more appropriate to help patients identify and correct what is troubling them. Doctors are not entirely to blame for this, however. Patients often press for instant and total relief.

Antidepressants are available to counteract severe depressions (those manifested by loss of appetite, weight loss, severe insomnia, feelings of hopelessness, and/or psychomotor retardation or agitation). These drugs usually require from three days to several weeks to take effect. They are not intended for use in countering minor upsets which are part of ordinary living.

All psychiatric drugs have the potential for adverse reactions, some serious and some not. In each case the value to the patient must be weighed against the nuisance or danger involved. Two situations are noteworthy, however. Major tranquilizers are sometimes prescribed to the point where patients look and feel like "zombies." This is a therapeutically undesirable situation that should be corrected either by lowering the dosage or switching to another medication. Minor tranquilizers can be physically addicting when given in high dosage for several months. To avoid withdrawal symptoms, their dosage should be tapered off gradually rather than stopped abruptly.

Electroconvulsive Therapy

Electroconvulsive therapy (also referred to as ECT, EST [electroshock therapy], and "shock treatment") is a method of inducing a convulsion by giving a brief stimulus to the brain. To receive the treatment, the patient lies down and is rendered unconscious either by an electrical stimulus or by a short-acting barbiturate given intravenously. To protect against injury, a curare-like drug is also given so that the patient's muscles do not actually contract during the convulsion. Electrodes are then applied to one or both temples, and a small amount of current is transmitted to induce the convulsion. After the treatment, the patient usually remains unconscious for about 15–30 minutes. A series of treatments may cause memory difficulty, but this clears up in a few weeks.

Although its mechanism of action is unknown, ECT can be dramatically successful in certain types of severe depression and is sometimes helpful in severe psychotic reactions. It should seldom be given without a prior trial of medication, however. Psychiatrists who give ECT to a large proportion of their patients, particularly young adults, should be viewed with suspicion. Most patients will respond to medication or psychotherapy.

Psychosurgery

Psychosurgery is a method of diminishing a patient's reactions to unpleasant sensations by severing various nervous pathways within the brain. Before the era of drug therapy, psychosurgery was widely used to reduce disturbed behavior in severely disturbed patients. Today, although it is still regarded as an effective mode of treatment, it is appropriate for consideration only when all other treatments have failed.

Psychotherapy

Psychotherapy may be defined as any type of persuasive or conversational approach that helps the patient. Although there are numerous schools of thought, most have in common a wish to understand the patient and help him alter his emotional and/or behavioral patterns.

In analytically oriented psychotherapy, the patient says what comes to mind (free association) and is helped by the therapist to understand his feelings, his mental mechanisms and his relationships with people. Insights are used to help the patient develop healthier ways of dealing with his feelings and life situation. This type of therapy usually involves one or two 50-minute sessions per week. *Psychoanalysis*, a more intensive form of psychotherapy, requires 3–5 sessions per week. Few people can afford its high cost.

Behavioral therapy (also called behavioral modification) is the systematic application of learning theory of the treatment of disorders of behavior. The therapist first conducts an analysis of the patient's maladaptive responses—the behaviors that cause stress, limit satisfaction and affect important areas of the patient's life. Treatment techniques include systematic desensitization (gradually facing stressful situations in order to master them), relaxation training and positive reinforcement (being rewarded for behaving more maturely).

Biofeedback is a relaxation technique that can help people learn to control certain bodily functions. The patient is connected to a machine that continuously signals the heartbeat, degree of muscle contraction or other bodily function. The patient is instructed to relax so that the signals decrease to a desirable level. Biofeedback is being tried for a variety of psychosomatic ailments, including headaches, high blood pressure and disturbances of heart rhythm. Although some successes have been reported, its use must be considered experimental.

Hypnosis is a temporary condition of altered attention during which suggestibility is greatly enhanced. The trance state may be used to uncover repressed material and/or to increase the patient's control over a symptom or behavior. Everything that can be done with hypnosis can be

done without it. It merely accelerates the treatment process in properly selected cases.

Group therapy is a method whereby several people, usually 8 to 10, meet with a therapist for discussion. Groups may be homogeneous (composed of people with similar problems or backgrounds) or heterogeneous. The discussions may focus on specific topics or may deal with whatever comes up. Group discussions often help people feel less alone in their feelings and provide a "laboratory" for analysis of an individual's behavior in a group situation. People who find it difficult to talk may find group sessions, in which they can sit and listen, preferable to individual sessions which may be relatively silent.

Marriage counseling is a process whereby husband and wife meet individually and/or together with a therapist to help them identify current marital conflicts. Acting as a referee, the therapist helps the couple communicate more effectively to negotiate solutions to their disputes. In *family therapy*, the therapist meets with the family as a group to help resolve current family conflicts.

Hospital Care

There are four basic situations in which psychiatric hospital care is indicated:

- 1. The patient is considered dangerous to himself because he is suicidal or is not eating enough to sustain life.
- 2. The patient is considered dangerous to others.
- 3. The patient has regressed to a point where he cannot care for himself in the community.
- 4. Specialized treatment which is available only on an inpatient basis is needed.

Patients who are judged sufficiently dangerous to themselves or others can be committed involuntarily for short periods. In the past few years, court decisions and new state laws have demanded stricter definition of the criteria for "dangerousness." As a result, it has become more difficult to hospitalize people against their will. In fact, many people who would actually be better off in a hospital are being denied this care and left to vegetate in their communities.

Standards of hospital care vary quite widely. Some psychiatric hospital wards have excellent therapeutic atmospheres with a variety of activity programs, while others do not. Some psychiatrists pay a great deal of attention to their hospitalized patients, while others visit them only occasionally and make little attempt to understand what has upset them. In my opinion, people who are upset enough to require hospital care should be visited daily. If a conversational therapy is involved, sessions should be at least 30 minutes in length.

Many communities have day-care programs where patients spend 6–8 hours per day in a therapeutic atmosphere. Some hospitals have night-care programs. Halfway houses may also be available to ease the transition from hospital to community for selected patients.

Psychosomatic Problems

A large percentage of the ailments for which people seek medical attention are significantly related to tension. Common examples are headaches, diarrhea, constipation, nausea, dizziness, muscle cramps, dry mouth, excessive sweating, indigestion and palpitations of the heart. These so-called "psychosomatic" reactions are mediated through the autonomic nervous system and are related to the action of adrenalin and related hormones on various parts of the body. Diarrhea before an examination, for example, is caused by increased intestinal motility. Tension headaches are caused by muscular tension in the back of the neck. Indigestion may be caused by increased production of acid in the stomach. The symptoms of acute anxiety attacks—sweating, rapid heartbeat, palpitations and a feeling of dread—are caused by release of adrenalin. On the more serious side, asthma, peptic ulcer, high blood pressure, backache and ulcerative colitis may have significant emotional components.

Psychosomatic reactions may be treated with (1) drugs to prevent the hormones from affecting the target organs, (2) tranquilizers to reduce tension, (3) psychotherapy to attack the underlying causes of the tension, or (4) a combination of these approaches.

Overdosage of caffeine is a common cause of symptoms that resemble those of chronic anxiety. Many people do not realize that in addition to being present in coffee, caffeine is also found in tea, cola beverages and certain non-prescription pain relievers and cold remedies. I have seen more than 100 patients who suffered from insomnia and/or nervousness which they did not realize was caused by excess caffeine. The drug's effect can last up to 18 hours in sensitive individuals. It is mildly addictive—withdrawal during the night can cause headaches and grogginess in the morning. In 1978, I petitioned the FDA to require a warning label on all foods and drugs that contain a significant amount of caffeine. The petition is under consideration as part of the agency's overall review of food labeling.

Mental Health Practitioners

There are many types of practitioners who profess to help people with mental, emotional and personal problems. The training, professional standards and legal status of the different types of practitioners vary considerably.

Psychiatrists are physicians who have completed at least three years of specialized training in psychiatry after graduation from medical school. *Child psychiatrists* have a minimum of four years of psychiatric training, two in adult psychiatry and two in child psychiatry. In 1979 there were about 28,500 active psychiatrists, about half of whom were certified by the American Board of Psychiatry and Neurology.

Psychoanalysts are practitioners who have undergone personal psychoanalysis and completed an additional 7–10 years of part-time training in the theories and specialized techniques of psychoanalysis. Most are psychiatrists, but a few have backgrounds in psychology or other nonmedical disciplines.

Psychologists are persons whose academic training has been the study of human behavior. They are also instructed in research methodology, statistics, psychological testing and a variety of skills applicable to their specialty if they intend to practice. The major specialties are counseling, clinical psychology, school psychology and industrial-organizational psychology. In 1979 there were about 26,000 licensed or certified psychologists, about 19,000 of whom were health service providers. In most states, licensing or certification for independent practice as a psychologist requires (1) a doctoral degree from an accredited training program, (2) two additional years of supervised clinical experience, and (3) passage of an examination. A few states allow persons with master's level training to work as psychological associates or assistants under the supervision of licensed or certified professionals.

Clinical social workers are licensed or regulated in 23 states. More than 40,000 have been certified by the Academy of Certified Social Workers (ACSW). This requires (1) a master's or doctoral degree from an accredited training program, (2) two years or 3,000 hours of postgraduate experience under the supervision of a master's level social worker, and (3) passage of a written examination given by the ACSW.

Marital and family counselors are licensed or certified in six states. The American Association of Marital and Family Counselors (AAMFT) certifies professionals who have appropriate master's or doctoral level training plus two years of postgraduate work experience under the supervision of an AAMFT-approved supervisor.

Sex therapists are not defined by law. In 1974, William H. Masters,

M.D., co-author of *Human Sexual Inadequacy*, observed that the field of sexual therapy was "dominated by an astounding assortment of incompetents, cultists, mystics, well-meaning dabblers, and outright charlatans." Since that time, the situation has improved somewhat. More than 40 university-affiliated clinics are now in operation and an interdisciplinary interest group, the American Association of Sex Educators, Counselors, and Therapists (AASECT) has developed certification standards. Listing in the AASECT directory requires an appropriate master's or doctoral degree, 100 or more supervised clinical hours, passage of an examination and attendance at a 2-day AASECT workshop.

There are many other types of mental health practitioners whose activities are not defined by law or regulated by licensure. Included in this category are caseworkers, social work aides, clergymen, school counselors, and a wide variety of self-proclaimed therapists. Some have sound training; others do not.

There are several reasons why finding a suitable therapist for a mental or emotional problem may be more difficult than finding one for a physical problem or for general medical care:

- 1. There is a wide choice of practitioner types.
- 2. Certain types lack standardization of their training and credentials.
- 3. Practitioners within each professional group may use different kinds of approaches.
- 4. The person seeking help may have no idea which type of treatment approach might be best for him.
- 5. Personality fit between patient and therapist is more important in psychological treatment than in the treatment of physical problems.
- 6. A sizable number of practitioners use questionable practices, some of which may be very hard to recognize.

Selecting A Therapist

Four basic questions should be asked during the process of seeking mental health treatment: (1) What type of help do I want? (2) Which practitioners can provide it? (3) Are they available in my community? (4) How much can I afford to pay?

If you want medication, you must see a physician; he or she is licensed to prescribe drugs. Most nonpsychiatric physicians are competent to prescribe minor tranquilizers for short periods of time. For major tranquilizers, antidepressants, or any type of long-range treatment, it is best to consult a psychiatrist.

If you prefer a conversational form of treatment, a recommendation may be obtained from your personal physician, a clergyman, a school

counselor or a friend. Psychoanalytic institutes, which are located in some of the major cities, can provide names of psychiatrists who specialize in psychotherapy. So can the psychiatry departments at most medical schools. Additional names of psychiatrists can be obtained from the local medical society and the yellow pages of the telephone directory. Information about the training and credentials of a prospective psychiatrist can be obtained from the biographical directory of the American Psychiatric Association, from the local medical society or from the psychiatrist directly. Those who have trained at university hospitals are more likely to be primarily interested in psychotherapy than those who have trained at state hospitals. "Do you do psychotherapy primarily?" is a good screening question.

Certification by the American Board of Psychiatry and Neurology is a good indication that a psychiatrist is qualified to administer organic forms of treatment, but is not so useful a guideline in selecting a psychotherapist. Many analytically oriented psychiatrists are not motivated to become certified because they believe the board examination is oriented too much toward organic psychiatry.

Information about the training and credentials of a psychologist can be obtained from the local branch of the American Psychological Association or the organization's biographical directory. Names of certified social workers are listed in the NASW Register of Clinical Social Workers.

The current cost of psychotherapy with a private practitioner is usually \$25-\$75 for a 50-minute session. Most psychiatrists charge \$50-\$60, and most nonpsychiatrists charge \$25-\$50. For people who cannot afford these rates, most communities have mental health clinics that base fees on the ability to pay. Most psychotherapy at community clinics is done by psychologists and social workers. A limited amount of counseling is available to students without charge at most colleges and universities.

Questionable Practices

Since terms such as "therapist," "psychotherapist," and "counselor" are not defined by law, anyone may use these words to represent himself. The fields of sensitivity training, sexual counseling, marriage counseling, hypnosis and encounter groups contain many self-proclaimed therapists who have little or no training. Other types of unqualified practitioners masquerade under such titles as metaphysician, astrolotherapist, autohypnotist, palmist, reader-adviser, graphologist (handwriting analyst) and character analyst. Diploma mills that issue phony psychological credentials are not uncommon.

In addition, there are many practitioners with orthodox training and credentials who engage in methods that are not based on scientific evidence of their efficacy, who have personal problems that interfere with proper care of their parents, or who exploit their patients.

The trouble with questionable mental health treatment is not merely lack of efficacy. A disillusioning experience can cause the patient to abandon further effort to obtain help or can trigger a personal disaster such as suicide. The balance of this chapter covers some of the common types of questionable mental health practices.

Sensitivity Training

Sensitivity training began about 30 years ago with training groups ("T-groups") whose purpose was to help community leaders ease social tensions in their communities. This was accomplished by an intense small-group experience that encouraged self-disclosure and expression of strong feeling while focusing on the attitudes and interactions of group members. The process was never intended for the treatment of emotionally disturbed individuals. Over the years there has been a proliferation of such groups under a variety of names such as marathon groups, growth centers, encounter groups and human relations laboratories. Unfortunately, many leaders of these groups are incompetent.

Sensitivity training can be very upsetting to individuals who are not self-confident enough to handle the confrontation and emotional expression that can take place at such meetings. Depression, psychosis, major personality disorganization, anxiety reactions, homosexual panic and physical injuries have resulted from improperly conducted meetings.

Megavitamin Therapy

About 25 years ago, a small number of psychiatrists began adding massive doses of nutrients to their treatment of severe mental problems. The original substance was vitamin B-3 (nicotinic acid or nicotinamide), and the therapy was termed "megavitamin therapy." Since that time, the treatment regimen has expanded to include other vitamins, minerals, hormones and diets, any of which may be combined with conventional drug therapy and/or ECT. Today the treatment is called "orthomolecular psychiatry," a term meaning "the treatment of mental disease by the provision of optimum molecular environment for the mind, especially substances normally present in the human body."

Abram Hoffer, M.D., Ph.D., a Canadian psychiatrist who was one of the originators of megavitamin therapy, claims that "orthomolecular psychiatry has already cured, or greatly aided in the recovery of over 30,000 patients who were previously given up as hopeless cases not worth any further effort on the part of a physician or psychiatrist." Dr. Hoffer is also president of the New York City-based Huxley Institute for Biosocial Re-

search, parent organization of the American Schizophrenia Association. The institute claims to have 3,000 members and "over 9,000 loyal contributors." It distributes a list of about 140 psychiatrists and other physicians whose scope of practice includes schizophrenia, hypoglycemia, depression, learning and behavioral disorders, alcoholism, drug abuse, allergies, senility and/or preventive medicine.

One of the more prominent centers for "orthomolecular medicine" is the Brain Bio Institute of Princeton, New Jersey. Its \$255 fee for an initial visit covers a history (\$30), consultation with a physician (\$60), hair analysis (\$25) and a variety of other laboratory tests that are not ordinarily used by psychiatrists. Follow-up visits at the institute cost from \$38 to \$150, depending on the number of laboratory tests performed. These fees do not include the cost of prescribed vitamins.

A special task force of the American Psychiatric Association has investigated the claims of the megavitamin and orthomolecular therapists. Its report, which was issued in 1973, concludes:

This review and critique has carefully examined the literature produced by megavitamin proponents and by those who have attempted to replicate their basic and clinical work. It concludes that . . . the credibility of the megavitamin proponents is low. Their credibility is further diminished by a consistent refusal over the past decade to perform controlled experiments and to report their results in a scientifically acceptable fashion. Under these circumstances this Task Force considers the massive publicity which they promulgate via radio, the lay press and popular books, using catch phrases which are really misnomers like "megavitamin therapy" and "orthomolecular treatment," to be deplorable.

The Research Advisory Committee of the National Institute of Mental Health has reviewed pertinent scientific data through 1979 and agrees that orthomolecular therapy is ineffective and may be harmful.

The Feingold Diet

Many school-age children have been labeled "hyperactive" or "hyperkinetic." In 1973, Benjamin Feingold, M.D., a pediatric allergist from California, proposed that salicylates, artificial colors and artificial flavors were causes of hyperactivity. To treat or prevent this condition, he suggested a diet that is free of these additives. He recommended further that the hyperactive child be included in the preparation of special foods and encouraged the entire family to participate in the dietary program. Since foods prepared from "scratch" are necessary at all family meals, the Feingold program is both time-consuming and financially expensive.

Many parents who have followed Feingold's recommendations have reported improvement in their children's behavior. In fact, many families have banded together into Feingold Societies to promote the dietary program. But carefully designed experiments have failed to support the idea that additives cause hyperactivity. Improvement, if any, appears related to changes in family dynamics such as paying more attention to the children. Because the Feingold diet does no physical harm, it might appear to be helpful therapy in some instances. However, the potential benefits must be weighed against the potential harm of communicating to a child that his behavior is controlled by what he eats rather than what he feels. I will never forget the youngster who announced on a recent Phil Donahue TV show that he had misbehaved because he had "slipped" off his diet and eaten a candy bar!

Simplistic Advice

A deep understanding of the dynamics of a case may enable a therapist to give good advice that appears to be simple in content. But sometimes therapists give advice without considering the complexity of the patient's situation. Such ill-conceived action may be the result of inadequate training, an emotional problem of the therapist, or both. The following cases illustrate this point:

A 60-year-old businessman complained of insomnia and depression. Worry about his business was keeping him awake. The physician advised him to take a vacation "to get away from it all so you can stop worrying." The man went to a seaside resort but found he could not relax. He thought that his business would suffer from his absence, and idleness merely served to intensify his worrying.

A 35-year-old junior executive sought treatment for headaches and abdominal fullness. His physician correctly diagnosed that these were bodily reactions to tension which was primarily generated at work. The patient believed he was being asked to do more than his share but was afraid to speak up about it. The physician encouraged the man to express his resentment, but failed to discuss how to do this in a constructive manner. The patient "told off" his boss and quit in a huff, a decision he later regretted.

A middle-aged couple who consulted a counselor spent the entire first two sessions berating each other for one thing after another. Seeing only the hostility in the relationship, the counselor advised them to get a divorce. A more qualified therapist would have realized that they could not have remained together for many years without a positive side to their relationship. The therapist should have terminated the verbal slugfest, explored the positive aspects of the relationship, identified the issues in conflict and tried to help the couple resolve them.

A 30-year-old housewife sought help in understanding why she became angry with important people in her life, particularly her husband. The therapist encouraged discussion of her childhood and "analyzed" the similarities between her father and her husband. The connection was made that "you get angry with your husband when he reminds you of your father." Feeling that this information "justified" her resentment, the patient acted more nastily toward her husband, and their relationship deteriorated. Actually, the marital situation had been far more complex than the therapist realized. He should have explored the patient's contribution to the marital friction and helped her learn better ways to handle her feelings.

Mismanagement of Psychotherapy

Psychotherapy should not only help patients resolve their problems, it should also (with rare exception) help them become independent of the therapist. Just as children must learn to handle situations without always running to their mothers, patients must learn to handle upset feelings between sessions without the direct help of the therapist. A therapist who permits or encourages frequent telephone calls is also encouraging overdependence. A therapist who receives many such calls from many patients is likely to have an unconscious problem—a neurotic need to have people depend upon him—which interferes with treatment of the patients.

A more subtle example of this problem is the therapist who cannot adhere to a schedule. Patients are scheduled for particular times, but sessions are allowed to run considerably overtime when patients are upset or appear to be talking about particularly meaningful material. Although an occasional brief extension may be justified, a general policy of this type encourages patients to manipulate the therapist to gain more attention.

A more malignant type of therapist behavior is that of exploiting patients. Although it is not unusual for therapist and patient to feel a

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personal or physical attraction toward each other, acting on such feelings is not therapeutic. A case history illustrates what can happen:

An unmarried 27-year-old woman entered therapy to overcome shyness, feelings of inadequacy and fear of involvement with men. Few men had seemed interested in her, and she had rarely dated. As therapy proceeded, she developed an intense fondness for the therapist, based largely on the fact that he was the first man who ever spent time with her on a regular basis. At this point, instead of helping her learn how to attract suitable dates, the therapist suggested that sex with him would help her become more comfortable with men. She consented, hoping that marriage to the therapist would result. Her eventual disillusionment was a shattering experience that led to suicide.

Therapists who make passes at their patients deserve to be prosecuted as criminals.

Throughout the world, hundreds of thousands of scientists work continuously to determine the boundaries of scientific thought. So if you find someone referred to as a "scientist ahead of his time," he is probably a quack.

> STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc.

BY

One way to avoid being robbed of cash and health is to get good information when you need it. Most of this book will tell you about people who can cheat you because they are confused or crooked. In this chapter, let's talk about where you can get honest, true and accurate answers to your health questions.

First, what is meant by "truth" in medical science and how is it determined?

Mankind has always been curious about disease and what causes it. The more we understand, of course, the better we can control illness. Down through the centuries, countless people have shared their observations and ideas. Thousands of theories have been offered to explain what men saw. During the past century, however, ideas have developed which seem to make more sense than others before them. And armed with these ideas, man has been able to prevent and cure many diseases in an almost miraculous fashion.

As part of this process of scientific development, good methods have developed to test whether theories are logical. The sum of these methods is known as the "experimental" or "scientific" method. This method is used to answer questions like: "If two things happen, are they related?" For example, suppose you take vitamin E when you have a headache and the headache goes away. How can we tell whether the vitamin relieved you or whether the headache would have gone away by itself anyway? Throughout the world, hundreds of thousands of scientists work continuously to determine the boundaries of scientific thought.

As mountains of information are collected, how can we tell which evidence is valid? "Valid" means honestly collected and properly interpreted—using good techniques of statistical analysis. One hallmark of a good experiment is that others can repeat it and get the same results.

This brings us to the question of who can interpret experimental findings. Scientists are judging each other all the time. People with equal or superior training look for loopholes in experimental techniques and design other experiments to test conclusions. Skilled reviewers also gather in groups whose level of ability far exceeds that of the average scientist. Such experts are not likely to be misled by poorly designed experiments. Among the reviewers are editors and editorial boards of scientific journals. These people carefully screen out invalid findings and publish significant ones. As good ideas are put to use, more reports are generated. Gradually a shared set of beliefs is developed which is felt to be scientifically accurate. When we speak of the "scientific community," we refer to this overall process of separating what is scientific fact from what is not.

Quacks, of course, operate outside of the scientific community. They

do not use the scientific method to evaluate what they see. In fact, they seldom bother to experiment at all. Quacks try to cover up their inadequacies by pointing out that the scientific community has made mistakes in the past. This, of course, is true. But in recent years, the chances of major error by the scientific community have decreased greatly. So if you find someone referred to as a "scientist ahead of his time," he is probably a quack!

Those who accurately evaluate scientific information about health can be divided into seven major categories:

1. Health Professional Groups

The American Medical Association is still the most comprehensive source of good medical information. It does little clinical research, but does a great deal of evaluating. Through its various divisions, departments and committees, the AMA provides physicians with information on almost every aspect of the practice of medicine. It publishes ten journals and many books and pamphlets. It has a service through which any physician can get an individual answer to his medical questions from top medical experts. It oversees a wide variety of educational programs for physicians. As a direct service to the public, for many years it published Today's Health-a fine monthly magazine which contained news of medical developments, articles on health care and disease, and answers to commonly asked questions. Today's Health was sold in 1976 to Family Health, a magazine with similar scope but lower editorial and advertising standards. Although some of Family Health's articles are excellent. others promote blatant quackery. The magazine has also run a number of misleading advertisements for health products.

Some of the political activities of the American Medical Association have been criticized as self-serving. Its scientific and educational activities are outstanding, however, and have been a big factor in the advance of health care in this country. The American Dental Association, American Psychiatric Association, American Dietetic Association and American Podiatric Association are among the groups which provide similar services for their respective professions.

2. Government Agencies

Many state and federal agencies evaluate scientific data and furnish information to consumers. The United States Public Health Service evaluates information which applies to public health. The National Institutes of Health undertake research. The Office of Consumer Affairs answers questions on a wide variety of topics. The Food and Drug Administration

monitors food and drug safety. Its publication, *FDA Consumer*, lists government health fraud prosecutions and contains articles about health, safety and nutrition. Subscription information can be obtained from Consumer Information, Pueblo, CO 81009.

3. Medical Schools, Colleges, Universities and Other Training Centers

Most medical research is done at centers where doctors are trained. Such centers also help practicing physicians keep up-to-date.

4. Scientific Organizations and Publications

Many independent groups evaluate data and publish reports and journals. *The Medical Letter* furnishes physicians with excellent guidance about medicines and other treatment methods.

ECRI, based in Plymouth Meeting, Pennsylvania, evaluates medical equipment and functions as an information clearinghouse for hazards and deficiencies in medical devices. It tests equipment, publishing brand-name comparisons in its monthly magazine, *Health Devices*. It also publishes *Health Devices 100*, a monthly journal that provides guidance on medical equipment and supplies for small hospitals, and *Health Devices Alerts*, a twice-monthly newsletter that warns of medical device hazards and problems. Most of ECRI's subscribers are hospitals.

The American Council on Science and Health is a newly-formed group that evaluates scientific data about chemicals and health and issues periodic reports and a newsletter (see Chapter 4).

5. Voluntary Health Agencies

These groups collect money and information to fight various diseases. Some furnish treatment through their own centers. Others bring together people with various conditions so that they may profit from sharing their experiences. The American Cancer Society is the largest voluntary health agency.

6. Consumer Publications

Most prominent of these is Consumers Union, publisher of Consumer Reports and special publications. Consumer Reports has a circulation of two million. It contains many extremely well-written articles about health. Many of these have been compiled into The Medicine Show. This book evaluates over-the-counter drugs and health supplies in order to help you avoid wasting your money on products which don't work. Your library probably carries the publications of Consumers Union.

7. Outstanding Individuals

Two physicians have achieved unusual distinction in their efforts to make accurate health information available to the public.

Lawrence E. Lamb, M.D., former Professor of Medicine, Baylor College of Medicine, writes a daily medical column which is distributed by the Newspaper Enterprise Association to more than 700 U.S. newspapers. He also edits *The Health Letter*, a four-page newsletter that is published twice a month. Dr. Lamb has a special interest in physical fitness and has written several books on this subject. Recently he began a syndicated TV series called *Health Talk*.

G. Timothy Johnson, M.D., Director of Lay Information, Department of Continuing Education, Harvard Medical School, writes a daily column which is distributed to more than 100 newspapers by the Chicago Tribune-New York News Syndicate. He also edits the Harvard Medical School Health Letter, a monthly six-page newsletter. He is medical editor of WABC-TV (Boston) and appears weekly on ABC's Good Morning America. He also writes and hosts Update on Health (thrice-weekly 90second TV news spots) and House Call (weekly half-hour TV talk shows), both of which are widely distributed.

How To Get Help

Where should you go if you have a health problem or question? The best source is probably your own doctor. Chapters 7 and 31 of this book should help you find a doctor you can trust. If he can't answer your need, he should be able to help you find the answer.

What if he can't? Or what if you want to get reading material or general information? There are many places you can contact. If you write for information, be sure to keep in mind that the person who receives your letter may be extremely busy. You will most likely get a helpful response if you do the following:

- 1. Type your letter.
- 2. Ask your question in as specific a way as possible.

3. Tell something about yourself and why you need the information. Indicate briefly what you already know or have read.

- 4. Enclose a large enough stamped, self-addressed envelope.
- 5. Consider making a small donation if you can afford one.

Here are the names of organizations which offer reliable health information and sometimes free services. Most of them are non-profit and non-commercial. Use them in good health!

Government Agencies

Alcohol, Drug Abuse and Mental Health Administration, 5600 Fishers Lane, Rockville, MD 20857

Center for Disease Control, Atlanta, GA 30333

HHS Division of HMO's, Park Lawn Bldg., 5600 Fishers Lane, Rockville, MD 20857 (Telephone 800-638-6686)

National Institutes of Health, Bethesda, MD 20205: National Institute of Allergy and Infectious Diseases National Institute of Arthritis, Metabolism, and Digestive Diseases National Cancer Institute National Institute of Child Health and Human Development National Institute of Dental Research National Eye Institute National Heart, Lung, and Blood Institute National Institute of Mental Health National Institute of Neurological and Communicative Disorders and

Stroke

Professional Groups

- American Academy of Family Physicians, 1740 West 92nd St., Kansas City, MO 64114
- American Academy of Ophthalmology, 2340 Clay Street, San Francisco, CA 94115
- American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, IL 60204
- American Association for Marriage and Family Therapy, 924 W. 9th St., Upland, CA 91786
- American Association for the History of Medicine, University of Kansas Medical School, Kansas City, KS 66103
- American Association for the Study of Headache, 5252 N. Western Ave., Chicago, IL 60625
- American Association of Blood Banks, 1828 L Street, N.W., Washington, DC 20036
- American Association of Pastoral Counselors, 3 W. 29th Street, New York, NY 10001
- American Association of Plastic Surgeons, 1100 W. Michigan St., Indianapolis, IN 46202
- American Association of Sex Educators, Counselors and Therapists, 5010 Wisconsin Ave., Washington, DC 20016
- American Association of Suicidology, P.O. Box 3264, Houston, TX 77001 American Burn Association, 525 E. 68th Street, New York, NY 10021

- American Cleft Palate Association, 331 Salk Hall, University of Pittsburgh, Pittsburgh, PA 15261
- American College Health Association, 2807 Central Street, Evanston, IL 60201
- American College of Radiology, 20 N. Wacker Dr., Chicago, IL 60606
- American College of Sports Medicine, 1440 Monroe St., Madison, WI 53706
- American Dental Association, 211 E. Chicago Ave., Chicago, IL 60611
- American Dietetic Association, 430 N. Michigan Avenue, Chicago, IL 60611
- American Fertility Society, 1608 13th Ave. South, Birmingham, AL 35205
- American Geriatrics Society, 10 Columbus Circle, New York, NY 10019
- American Group Psychotherapy Association, 1995 Broadway, New York, NY 10023
- American Health Care Association (formerly American Nursing Home Association), 1200 15th St., N.W., Washington, DC 20005
- American Hospital Association, 840 N. Lake Shore Dr., Chicago, IL 60611
- American Industrial Hygiene Association, 425 Wolf Ledges Parkway, Akron, OH 44311
- American Institute of Nutrition, 9650 Rockville Pike, Bethesda, MD 20014
- American Lung Association, 1740 Broadway, New York, NY 10019
- American Medical Association, 535 N. Dearborn St., Chicago, IL 60610
- American Medical Women's Association, 1740 Broadway, New York, NY 10019
- American Medical Writers Association, 5372 River Road, Bethesda, MD 20016
- American Nurses Association, 2420 Pershing Road, Kansas City, MO 64108
- American Occupational Therapy Association, 6000 Executive Blvd., Rockville, MD 20852
- American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141
- American Osteopathic Association, 212 E. Ohio St., Chicago, IL 60611
- American Pharmaceutical Association, 2215 Constitution Ave., N.W., Washington, DC 20037
- American Physical Therapy Association, 1156 15th St., N.W., Washington, DC 20005

- American Podiatry Association, 20 Chevy Chase Circle, N.W., Washington, DC 20005
- American Psychiatric Association, 1700 18th St., N.W., Washington, DC 20009
- American Psychoanalytic Association, 1 E. 57th St., New York, NY 10022
- American Psychological Association, 1200 17th St., N.W., Washington, DC 20036
- American Public Health Association, 1015 18th St., N.W., Washington, DC 20036
- American School Health Association, 1521 S. Water St., Kent, OH 44240
- American Society for Artificial Internal Organs, P.O. Box 777, Boca Raton, FL 33432
- American Society for Clinical Nutrition, 9650 Rockville Pike, Bethesda, MD 20014
- American Society of Clinical Hypnosis, 2400 E. Devon Ave., Des Plains, IL 60018
- American Society of Hematology, 4150 Clement St., San Francisco, CA 94121
- American Society of Internal Medicine, 2250 M St., N.W., Washington, DC 20037
- American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852
- American Veterinary Medicine Association, 930 N. Meachaun Rd., Schaumburg, IL 60196
- Association for the Advancement of Health Education, 1201 16th St., N.W., Washington, DC 20026
- Blue Cross Association, 840 N. Lake Shore Dr., Chicago, IL 60611
- ECRI, 5200 Butler Pike, Plymouth Meeting, PA 19462
- Food and Nutrition Board, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, DC 20418
- Gerontological Society, 1835 K St., N.W., Washington, DC 20006
- Health Insurance Institute, 1850 K St., N.W., Washington, DC 20006
- Institute for Sex Research, Indiana University, Bloomington, IN 47401

Institute of Food Technologists, 221 N. LaSalle St., Chicago, IL 60601

- International Health Society, 7310 River Hill Rd., Oxon Hill, MD 20021
- Kidney Transplant/Dialysis Association, 741 Huntington Ave., Boston, MA 02174
- Medical Library Association, 919 N. Michigan Ave., Chicago, IL 60611
- National Association for Hearing and Speech Action, 6110 Executive Blvd., Rockville, MD 20852

- National Association of Blue Shield Plans, 211 E. Chicago Ave., Chicago, IL 60611
- National Association of Social Workers, 1425 H St., N.W., Washington, DC 20005
- National Health Council, 1740 Broadway, New York, NY 10019
- National Hearing Aid Society, 20361 Middlebelt Road, Livonia, MI 48152
- National League for Nursing, 10 Columbus Circle, New York, NY 10019
- National Migraine Foundation, 5214 N. Western Ave., Chicago, IL 60625
- National Nutrition Consortium, 2121 P St., N.W., Washington, DC 20037
- National Nutrition Exchange, 55 Union Street, San Francisco, CA 94111
- National Rehabilitation Association, 1522 K St., N.W., Washington, DC 20005
- Nutrition Foundation, 489 5th Ave., New York, NY 10017
- Sister Kenny Institute, Chicago Ave. at 27th St., Minneapolis, MN 55404
- Society for Clinical and Experimental Hypnosis, 129-A Kings Park Dr., Liverpool, NY 13088
- Society for Computer Medicine, 1901 Ft. Meyer Dr., Arlington, VA 22208
- Society for the Rehabilitation of the Facially Disfigured, 550 1st Ave., New York, NY 10016

Voluntary Organizations

- Abused Women's Aid In Crisis, Box 1699, General Post Office, New York, NY 10001
- Action on Smoking and Health, 2000 H St., N.W., Washington, DC 20006
- Al-Anon Family Group Headquarters (for families of alcoholics), P.O. Box 182, Madison Square Station, New York, NY 10010
- Alcoholics Anonymous, P.O. Box 459, New York, NY 10017
- Alexander Graham Bell Institute for the Deaf, 3417 Volta Place, Washington, DC 20007
- Alliance for Families of Brain Damaged Children, 118 Brick Church Rd., Spring Valley, NY 10977
- American Alliance for Health, Physical Education and Recreation, 1201 16th St., N.W., Washington, DC 20036
- American Association on Mental Deficiency, 5101 Wisconsin Ave., Washington, DC 20016
- American Cancer Society, 777 3rd Ave., New York, NY 10017
- American Council on Science and Health, 1995 Broadway, New York, NY 10023

- American Diabetes Association, 600 5th Ave., New York, NY 10020
- American Foundation for the Blind, 15 W. 16th St., New York, NY 10011
- American Heart Association, 7370 Greenville Ave., Dallas, TX 75231
- American Narcolepsy Association, Box 5846, Stanford, CA 94305
- American Red Cross, 17th and D Sts., Washington, DC 20006
- American Social Health Association (venereal disease), 260 Sheridan Ave., Palo Alto, CA 94306
- American Venereal Disease Association, Box 385, University of Virginia Hospital, Charlottesville, VA 22901
- Arthritis Foundation, 3400 Peachtree Rd., Atlanta, GA 30326
- Association for Children with Learning Disabilities, 5225 Grace St., Pittsburgh, PA 15236
- Association for Voluntary Sterilization, 708 3rd Ave., New York, NY 10017
- Asthma and Allergy Foundation of America, 801 2nd Ave., New York, NY 10017
- Bald Headed Men of America, P.O. Box BALD, Dunn, NC 28334
- Better Vision Institute, 230 Park Ave., New York, NY 10017
- Braille Institute of America, 741 N. Vermont Ave., Los Angeles, CA 90029
- California Council Against Health Fraud, Inc., P.O. Box 1276, Loma Linda, CA 92354
- Cancer Care, Inc., 1 Park Ave., New York, NY 10016
- Children's Hearing Education and Research, 871 McLean Ave., Yonkers, NY 10704
- Committee to Combat Huntington's Disease, 250 W. 57th St., New York, NY 10019
- Consumers Union, 256 Washington St., Mount Vernon, NY 10550
- Cooley's Anemia Foundation, 420 Lexington Ave., New York, NY 10017
- Cystic Fibrosis Foundation, 6000 Executive Blvd., Rockville, MD 20852
- Deafness Research Foundation, 366 Madison Ave., New York, NY 10017
- Disabled in Action, 175 Willoughby St., Brooklyn, NY 11201
- Divorce Anonymous, P.O. Box 5313, Chicago, IL 60680
- DOC—Doctors Ought to Care (preventive measures), South Carolina Family Practice Residents Association, 171 Ashley Ave., Charleston, SC 29403
- Drug Abuse Council, 1828 L St., N.W., Washington, DC 20036
- Dysautonomia Foundation, 370 Lexington Ave., New York, NY 10017
- Emphysema Anonymous, P.O. Box 66, Ft. Meyers, FL 33902
- Epilepsy Foundation of America, 1828 L St., N.W., Washington, DC 20036

- Euthanasia Educational Council, 250 W. 57th St., New York, NY 10019
- Family Service Association of America, 44 E. 23rd St., New York, NY 10010
- Feminist Health Center, 1112 Crenshaw Blvd., Los Angeles, CA 90019 Gamblers Anonymous, P.O. Box 17173, Los Angeles, CA 90017
- Group Against Smoking Pollution (GASP), P.O. Box 632, College Park, MD 20740
- Guide Dog Users, Box 174, Central Station, Baldwin, NY 11510
- Hay Fever Prevention Society, 2300 Sedgwick Ave., Bronx, NY 10468
- Health Activation Network (self-care), P.O. Box 923, Vienna, VA 22180
- Health-Pac (consumer information), 17 Murray St., New York, NY 10017
- Institute of Rehabilitation Medicine, 400 E. 34th St., New York, NY 10016
- International Association of Laryngectomees (c/o American Cancer Society)
- International Council for Infant Survival, 1515 Reistertown Road, Baltimore, MD 21208
- Jewish Guild for the Blind, 15 W. 65th St., New York, NY 10023
- Juvenile Diabetes Foundation, 23 E. 26th St., New York, NY 10010
- Little People of America, Box 126, Owatonna, MN 55060
- Living (self-help group, c/o Arthritis Foundation)
- Make Today Count (cancer self-help group), P.O. Box 303, Burlington, IA 52601
- Maternity Center Association, 48 E. 92nd St., New York, NY 10028
- Medic-Alert (medical identification bracelets), Box K, Turlock, CA 95380
- Mended Hearts (self-help), 721 Huntington Ave., Boston, MA 02115
- Mental Health Association, 1800 N. Kent St., Arlington, VA 22209
- Muscular Dystrophy Associations of America, 810 7th Avenue, New York, NY 10019
- Myasthenia Gravis Foundation, 15 E. 26th St., New York, NY 10010
- National ALS Foundation (amyotrophic lateral sclerosis), 185 Madison Ave., New York, NY 10016
- National Amputation Foundation, 12-45 150th St., Whitestone, NY 11357
- National Association for Retarded Citizens, P.O. Box 6109, Arlington, TX 76011
- National Association for Sickle Cell Disease, 3540 Wilshire Blvd., Los Angeles, CA 90010
- National Association for the Deaf, 6110 Executive Blvd., Rockville, MD 20852

- National Association of Patients on Hemodialysis and Transplantation, 505 Northern Blvd., Great Neck, NY 11021
- National Association of the Physically Handicapped, 76 Elm St., London, OH 43140
- National Ataxia Foundation, 5311 36th Ave. North, Minneapolis, MN 55422
- National Burn Federation, 3737 5th Ave., San Diego, CA 92103
- National Committee Against Mental Illness, 1101 N. 17th St., N.W., Washington, DC 20036
- National Committee for Prevention of Child Abuse, 111 E. Wacker, Chicago, Il 60601
- National Council on Alcoholism, 733 Third Ave., New York, NY 10017
- National Council on Family Relations, 1219 University Avenue, S.E., Minneapolis, MN 55414
- National Council on the Aging, 1825 L St., N.W., Washington, DC 20036
- National Easter Seal Society for Crippled Children and Adults, 2023 W. Ogden Ave., Chicago, IL 60612
- National Family Planning Council, 1800 N. Highland Ave., Los Angeles, CA 90028
- National Federation of the Blind, 1800 Johnson St., Baltimore, MD 21230
- National Foundation for Asthma, P.O. Box 50304, Tucson, AZ 85703
- National Foundation for Ileitis and Colitis, 295 Madison Ave., New York, NY 10017
- National Foundation/March of Dimes, Box 2000, White Plains, NY 10602
- National Genetics Foundation, 250 W. 57th St., New York, NY 10019
- National Hemophilia Foundation, 25 W. 39th St., New York, NY 10018
- National Interagency Council on Smoking and Health, 291 Broadway, New York, NY 10017
- National Kidney Foundation, 2 Park Ave., New York, NY 10016
- National Leukemia Foundation, Roosevelt Field, Lower Concourse, Garden City, NY 11530
- National Lupus Erythematosus Foundation, 5430 Van Nuys Blvd., Van Nuys, CA 91401
- National Multiple Sclerosis Foundation, 205 E. 42nd St., New York, NY 10017
- National Operation Venus (VD information and referral), 1213 Clover St., Philadelphia, PA 19107 (Telephone: 800-523-1885 in U.S., 800-462-4966 in Pa.)
- National Paraplegia Foundation, 333 N. Michigan Ave., Chicago, IL 60601

- National Parkinson Foundation, 1501 N.W. 9th Ave., Miami, FL 33136
- National Retinitis Pigmentosa Foundation, 8331 Mindale Circle, Baltimore, MD 21207
- National Self-Help Clearinghouse, 33 W. 42nd St., New York, NY 10036
- National Society for Autistic Children, 1234 Massachusetts Ave., N.W., Washington, DC 20005
- National Safety Council, 425 N. Michigan Ave., Chicago, IL 60611
- National Society to Prevent Blindness, 79 Madison Ave., New York, NY 10016
- National Sudden Infant Death Syndrome Foundation, 310 S. Michigan Ave., Chicago, IL 60604
- National Tay-Sachs and Allied Diseases Association, 122 E. 42nd St., New York, NY 10017
- National Wheelchair Athletic Association, 40-24 62nd St., Woodside, NY 11377
- Neurotics Anonymous International Liaison, 1341 G St., N.W., Washington, DC 20005
- Orton Society (dyslexia), 8415 Bellona Lane, Towson, MD 21204
- Overeaters Anonymous, 2190 190th St., Torrance, CA 90504
- Parents and Children Together (congenital heart defects), 25 Coolidge Rd., Arlington, MA 02174
- Parents Anonymous (child abuse), 2810 Artesia Blvd., Redondo Beach, CA 90278
- Patients Aid Society, 505 5th Ave., New York, NY 10017
- People-to-People Committee for the Handicapped, 1028 Connecticut Ave., N.W., Washington, DC 20036
- Planned Parenthood/World Population, 810 7th Ave., New York, NY 10019
- Reach to Recovery (self-help group, c/o American Cancer Society)
- Recovery, Inc. (self-help for emotional problems), 116 S. Michigan Ave., Chicago, IL 60603
- Scoliosis Association, Penn Plaza, New York, NY 10001
- Seeing Eye (dogs for the blind), Washington Valley Rd., Washington, NJ 07960
- Stroke Club of America, P.O. Box 15186, Austin, TX 78761
- Stutterers, 2 Hempstead Rd., New City, NY 10956
- Suicide Prevention Center of Los Angeles, 1041 Menlo Ave., Los Angeles, CA 90006
- Take Off Pounds Sensibly Club (TOPS), P.O. Box 07489, Milwaukee, WI 53207

Tourette Syndrome Association (severe tics), 42-20 Bell Rd., Bayside, NY 11361

United Cerebral Palsy Associations, 66 E. 34th St., New York, NY 10016 United Ostomy Association, 1111 Wilshire Blvd., Los Angeles, CA 90017 United Parkinson Foundation, 220 State Street, Chicago, IL 60604

Additional information about many of the above organizations can be found in the *Encyclopedia of Associations* at your public library.

Publications

- Consumer Reports, Orangeburg, NY 10962 (Monthly consumer magazine which contains excellent articles about health. Subscription: \$12/yr.)
- FDA Consumer, Consumer Information, Pueblo, CO 81009 (Contains excellent articles about health and safety. Issued monthly. Sub-scription \$12/yr.)
- The Harvard Medical School Health Letter, Dept. of Continuing Education, Harvard Medical School, 25 Shattuck St., Boston, MA 02115 (Edited by G. Timothy Johnson, M.D. A monthly six-page newsletter which contains excellent articles on selected topics. Subscription: \$15/yr.)
- The Health Letter, P.O. Box 326, San Antonio, TX 78292 (Edited by Lawrence E. Lamb, M.D. A four-page newsletter, published 24 times a year, which contains excellent articles on selected topics. Subscription: \$19.50/yr.)

27 Quackery and the Media

A climate of hope and fear.

BY MAX GUNTHER In an eventful quarter-century of writing for *Time* Magazine and as a freelancer, I've learned much about the internal mechanisms of "the media" as a message market place. The media have four main functions: to entertain, to inform, to carry advertisements, and to make money for their stockholders. Because of the ways in which these functions are carried out, and the peculiar and intricate ways in which they are connected, an appalling amount of misinformation—ranging from the faintly biased to the downright wrong—is fed every day to an unfortunately gullible public. Hardly anywhere is this more evident than in the fields of medicine and its unwanted cousin, medical quackery!

It is easy for those not in the print or TV or radio journalism business to decry this admittedly sorry state of affairs. It is easy to mount a podium and say, "The media should tell us the truth!" Easy to say, but not to translate into action.

Let Me Tell You a Story

Late in the 1960s a national women's magazine asked me to write an article about "beauty quackery." I was to cover such topics as inept nosebobbing, face-peeling by nonprofessionals, fake vitality nostrums, and so on. In the course of the article I made some unenthusiastic remarks about a then-popular reducing machine sold under the trade name Relax-A-Cisor. It was supposed to trim bulging bodies by giving its users little electric shocks to induce muscle contractions which were alleged to produce the same results as healthy exercise. It didn't work (except for some people as a bizarre sexual stimulant), and even as I was writing the article, various government agencies were trying to drive it off the market. It has since been banned.

The magazine's nonfiction editor liked the article except for one passage. Would I mind, the editor asked, if she were to cut out the reference to Relax-A-Cisor? The reason she gave was straightforward and practical. Relax-A-Cisor regularly bought advertising space in the magazine.

Well, what could I say? It would be naive to expect that a magazine, dependent on advertisers for its very life, would want to make a good advertiser mad. I told the editor I was more a practical journalist than an idealist and hence could sympathize with her problem. She and I agreed that this isn't the best of all possible worlds and that compromises, even unpleasant ones, are often necessary. I said, "Okay, kill the reference to your beloved advertiser." But I also said, "Please leave in the rest of my comments." These comments were to the effect that some electric reducing machines can be dangerous and that no machine can reduce weight all by itself. A compromise. Not entirely satisfactory—but I went away with a shrug.

Then I saw the story in galley proof. By then I had reached a stage in my life when I thought nothing that happened in the media could shock me any more, but this did.

The editor and her colleagues had added a clever little embellishment to my words. They had written in some extra sentences that said, in effect: Sure, some reducing machines have been discredited. But, they added: "Most of those still being sold are legitimate. Used faithfully they *do* take off inches."

Unquote. A piece of gratuitous bootlicking, and moreover an outright lie. I grabbed the phone in a rage. The editor blamed the advertising sales director, who in turn blamed the corporate lawyers. "Look, we can't be printing nasty stuff about our advertisers," said the ad chief. I conceded that point. I had already conceded it to the editor. "But listen," I said, "you did more than just avoid making these people mad. You went out of your way to give a worthless gadget a free plug. You printed a plain, oldfashioned, damned lie under my name." The ad man finally said, "Well, yeah, maybe we did go overboard a bit, but—"

But what? But this is the way the media world works. What we want isn't always what we get. We start out wishing to tell the truth—and I believe that magazine editor started with such a wish in her heart—but then circumstances get in the way.

The Fear

Fear of losing good advertisers is one of the more common reasons why worthless medicines and gadgets and treatment methods get free plugs, and why you don't see honest medical rebuttals printed or aired as often as could be wished. A physician and professor at Northwestern University's School of Medicine, for example, has written a book on a new drugfree approach to headache treatment that he has developed and studiously tested. In this book he offers evidence that many common, overthe-counter headache remedies are potentially hazardous. Will he ever get to publicize this book by appearing on a major TV talk show? Will any major magazine print an excerpt? Both of these questions make him gloomy.

"No TV station is going to let me stand up and advise people not to take pills for headaches," he says. "Nor will any of the big newsstand magazines. They all get lots of income from pill companies."

It seems significant that the hardest-hitting antiquackery articles always appear in publications that don't make money from quacks of the given breed. For example, *Consumer Reports* has printed many articles attacking vitamin quackery and other nostrums. *Consumer Reports* carries no advertising at all. "For us," says senior editor Joseph Botta, "it's easier than for a lot of others. We never have ad backlash to worry about. Lots of other kinds of backlash, yes—but ad backlash is one worry we escape."

Let's look at those other kinds of backlash. Editor Botta is referring particularly to the kind that arises when people you attack are organized into a powerful and purposeful group. Chiropractors, for example. Botta's magazine ran a two-part report on chiropractic in 1975. The report wasn't an all-out attack, but its general conclusions were not encouraging.

"We got hundreds of letters," Botta recalls. "Chiropractors do a lot of letter-writing. When they're mad at somebody, their publications give the somebody's address and urge all the readers to bury the offender in mail. Well, we got buried. The letters said we were biased, inaccurate, in the employ of the AMA. 'How much did the AMA pay you?' some of them asked."

Ann Landers, the newspaper personal-advice columnist, had a similar experience. "I've taken on chiropractors periodically since I began writing the column," she said. "The last time I did, the chiropractors printed my address in their journals and I got 17,000 letters of protest."

It is unpleasant for any writer or editor to receive all that nasty mail, but the mere anticipation of being buried in disagreeable letters doesn't generally keep anti-quackery material from being printed or broadcast. What more powerfully deters a journalist is fear of the economic or legal reprisals that such letters often threaten.

Joseph Botta, who has studied this matter from his enviable position on a magazine independent of advertising, reports that less fortunate editors can be panicked by such threats. If a fringe pseudo-medical group discovers in advance that an unfavorable report on its activities is being prepared for publication or broadcast, he says, dark hints and warnings begin to flow through the mail. "They threaten to go to the advertisers and say, 'This publication or this TV station is about to run some libelous accusations against us. We suggest you withdraw your support. If you don't, we'll organize a boycott of your product.' An advertiser hates to hear talk of boycotts, even on a relatively small scale. Boycotts bring messy public relations problems he can do without. So he goes to the publication or the station and says, 'Look, I don't want to bring economic pressure to bear on you guys, but do you really *have* to run this quackery report?' " After the editor or producer has received similar gentle in-

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quiries from several more advertisers, he begins to think that maybe the quackery report isn't such a good idea after all.

Threats of legal action are also scary, though for different reasons. "What troubles you isn't usually the fear of losing a lawsuit," said David Murray, who was editor of the consumer magazine, *Today's Health*, when the AMA stopped publishing it in 1976. "If we're going to publish a story that makes unkind statements about any health group, we go to great lengths to make sure our facts are well-documented, and we have our lawyers comb the piece for potential libel and other legal problems. We've been sued and threatened with suits by all kinds of groups, but we always feel pretty confident about our defense. The thing that troubles us is the enormous amount of time and work that one of these legal battles involves. Even when you win, you lose."

The fear of this losing-though-winning effect is something that keeps many potentially valuable anti-quack books and articles from ever being written. Shortly after *TV Guide* printed an article of mine on diet claptrap, a New York publisher approached me with the suggestion that I write a "really honest, hard-hitting" book on the topic. I was attracted to the notion because, in researching and writing the article, I had become deeply concerned about the amount of food nonsense being swallowed by the unsuspecting public. Besides, I thought the project might be fun. I went around to see the chief editor, and he took me to lunch in one of those dim, expensive little restaurants where New York book people like to squander their expense accounts.

Over a pre-lunch martini, I told him of my private nightmare. "The kind of book you want," I said, "is the kind of book that could get us into libel suits. I'd need a lot of protection from you."

"Sure," he said. "That's understood."

"Well, but every book contract I've ever signed has had a legal escape clause for the publisher. Your contracts probably have one too, and that worries me."

The escape clauses to which I was referring are standard on all book contracts. A typical one now lying on my desk says: "The Author represents, warrants and covenants that the Work . . . contains no libelous or other unlawful matter . . . The Author agrees to indemnify and hold harmless the Publisher . . . against loss or expense, including court costs and attorneys' fees . . ."

In other words, the poor old Author is on his own if he annoys a quack and the quack sues. My editor friend acknowledged that there was such a clause in his company's standard contract. "But look," he said, "in practice those clauses are pretty well ignored. Most publishers will back up an author if he gets hauled into court, and we'll back you up."

"That's nice," I said, "but I think I'd feel more comfortable if you struck out the escape clause altogether. Will you?"

"I'll see what can be done," he said dubiously.

"Also," I said, "the biggest worry I have isn't about losing a lawsuit. It's about losing time and earnings. Suppose one of these cases drags on for months. Suppose I have to spend a lot of time talking to lawyers, sitting around in courtrooms, digging out research material to shore up my defense. Would you help me out?"

"Well," he said, still more dubiously, "I guess we could always arrange some kind of advance against future royalties, or something."

"In other words lend me my own money," I said. "That wasn't what I meant. Look, if *you* have to spend time on a lawsuit arising from one of your books, the company goes on paying your salary, right? But I'm a freelancer. When I don't work at my profession, I don't get paid. *That's* my big nightmare."

"Well, what are you asking me to do?"

"Share the risk with me. You want me to write a tough book and about quacks, and the quacks are going to get mad, and I don't want to take the punishment all alone. So I'm asking you to put a risk-sharing clause in the contract. If some quack files suit and I get taken away from my typewriter, your company pays me a daily living allowance until we're out of the soup."

He leaned back in his chair, heaved a big sigh and finally said, softly, "Oh boy."

And so an anti-quackery book, which might have been a useful one, never got written. There is no way of knowing how many other quackexposing books and magazine articles and TV shows have died in the womb for similar reasons, but I am certain the number is large.

Even when a writer and editor do get together and swallow their fears and decide to produce a forthright report, they may be hampered by the fact that legitimate medical scientists harbor the same fears. If I were to have written that book on diet quackery, I would have needed to find serious nutritionists and other authorities who were willing to talk to me, to be quoted by name, and to make anti-quack statements in plain English. But physicians, like writers and everybody else, are reluctant to be dragged into unpleasant, time-consuming squabbles. I might have found too few brave men and women to make a book.

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The Open Door Policy

Those are some of the reasons why relatively few critical reports on fringe medical practices are printed or broadcast. Now let's look at the problem from the opposite direction. Why do the media give so much free space and air time to proponents of bizarre health theories?

On TV, the Merv Griffin Show is notorious as an electronic soapbox for health nuts. If you want to get yourself interviewed on that show, all that seems to be required is that you invent some weird new medical or medical-mystical idea, that you write a book or gather some kind of following behind you, and that you and your idea be colorful. Two requirements that decidedly don't exist are that your medical views have a sound basis in recognizable science or that they be endorsed or at least considered plausible by the AMA.

When medical scientists challenge Griffin about this, he and his colleagues give answers that cannot be argued with. Not easily, anyhow, William Barron, publicity spokesman for the show, pointed out piously but with justification that our society guarantees a hearing to the iconoclast, the challenger of established views, even the madman. "This show has an open-door policy," Barron told me in 1976. "If somebody has something interesting to say, this is one place where he can say it without being heckled."

That is perfectly proper, of course. It would not be in America's best interests to close that or other doors. You and I have the right to say what we want to say, even if our words anger other people.

Barron further insisted, in the Griffin Show's defense, that its approach is "reportorial, non-judgmental." But Griffin seldom invites qualified medical scientists onto his stage to rebut the peculiar notions that have been left drifting around. Many worried men and women have asked for equal time, and some have been given it but most haven't. The National Nutrition Consortium, for example, asked for time to rebut a presentation on the supposed healthful effects of massive vitamin doses. The group wanted to tell the scientific side of the story: that there is little evidence that such big doses can do you much good, while there is evidence of potentially dangerous toxic effects. The Consortium received no reply.

Why not? Undoubtedly part of the answer, if not the whole of it, is that the show's producers felt the proposed rebuttal would be much less interesting than the original presentation. "People with bizarre medical theories are often very colorful, very entertaining," remarks Dr. Philip L. White, chief public spokesman of the AMA Council on Foods and Nutrition. "Obviously, any TV talk show wants colorful and entertaining guests. We scientific types, by contrast, are pretty dull clods. We always find ourselves in the position of pricking people's balloons. We're always having to say, 'No, this quick and magical cure won't work.' "

Dr. White is so convinced of his own dullness (though in fact he is an uncommonly witty fellow!) that he never asks for TV or radio rebuttal time and studiously avoids those one-to-one confrontations in which a recognized authority and a health faddist hold an on-the-air debate. He has morosely watched many such debates, he says, and has never seen one in which the scientific man came out ahead. "The anti-establishment man is almost always the more flamboyant and interesting, almost always has glib, quick, confident answers ready. The scientific rebuttals are usually dry, unemotional, complex, hard to explain or undestand—for that is the very nature of science, isn't it? It's a fight that can't be won in a half-hour TV show."

Not only are off-trail health ideas colorful, but they sell. This is another reason why they command so much media space and time. They offer the "quick" and "magical" results that Dr. White mentions, so people rush to buy them. Dr. Atkins' Diet Revolution, for instance, is a how-to-get-slim book whose rationale the AMA Council finds "for the most part without scientific merit." Yet more than a million copies were sold in the first year after its publication—a record for any hardcover book of any kind. Why? Because it offered what sounded like a quick, easy way to shed fat. It offered magic.

Another slimming plan that sounded magical, but that scientists regarded without enthusiasm, was published in 1974 by *Family Circle* magazine. The plan was grandly titled, "My Amazing Cider Vinegar, Lecithin, Kelp, B₆ Diet." It consisted of adding the four ingredients listed in the title to a low-calorie diet. This "mysterious mixture," suggested the author Mary Ann Crenshaw, made the diet "seemingly infallible for making *my* weight come off in a sudden rush."

But Dr. White and other nutrition scientists, dull clods that they are, insist that the *only* thing which determines weight loss is taking in fewer calories than your body expends. Each 3,500 calorie deficit will lose you a pound and that's that. No exotic foodstuff (such as kelp, a seaweed whose taste reminds me of wet newspaper) will increase the speed with which your fat disappears.

Family Circle readers evidently hoped otherwise. The magazine's space sales department, in an effort to lure more advertisers to the magazine, bragged later that readers had "emptied the shelves" of kelp and that other stuff. Why the buying rush? Again, an offer of magic.

I sent my research associate around to ask Family Circle some ques-

tions about all this. We wanted to know if the magazine had tested the diet before publishing it, if the editors had sought independent medical opinions, and so on. Health Editor Maxine Lewis, noting with a chuckle that the subject was "touchy," amiably but firmly declined to talk to us unless we submitted a list of questions in advance. Foreseeing delays, we abandoned the probe.

Now let's ask if anything can be done to attack all these problems. There do seem to be two possibilities:

A Countervailing Push

One of journalism's major problems in this field is that there is very little *push* in the direction of sound, carefully researched medical reporting. There are three possible approaches that a writer or editor or TV producer can take toward a given brand of quackery: he can be friendly to it, he can ignore it, or he can attack it. Of the three, the last is vastly the hardest.

Consider the legal push. There are libel laws to make us nervous when we attack anybody in the media. These laws are reasonably clearcut. Their teeth may not be as long or sharp as some media people fear, but when you see a shark in the water, it makes you careful. The libel laws represent a clearly felt danger. On the other hand, there is no countervailing body of law to make us careful when we give public praise to quacks, and of course there is no law against ignoring them either.

Suppose I write, "Dr. Schrunkenkopf's Magic Sex-Regeneration and Dandruff Pills are nothing but sugar, and Schrunkenkopf is a quack." I write myself into trouble. If I am determined to write it, I must do a lot of hard work to make sure that what I say is soundly documented. On the other hand, with no research at all and with no feeling of danger I can write, "Dr. Schrunkenkopf is a great healer and scholar, and a lot of people say his amazing pills have cured their sex problems and dandruff, and furthermore the pills taste terrific!" Or, choosing the middle course and ignoring the issue, I can write simply, "Dr. Schrunkenkopf announced that his Magic Sex-Regeneration and Dandruff Pills will henceforth be offered in a choice of two colors." If I choose either of these easy courses, I know nobody will seriously attack me. I may receive a few grumpy letters from honest doctors and perhaps one from the AMA. These, of course, can be quietly filed in my wastebasket.

Or, let's suppose a book publisher approaches me tomorrow with a self-styled "doctor" in tow—and the doctor has rigged up a sensational new diet that lets you stuff yourself with meat and cake, makes you thin, gives you hypnotic power over members of the opposite sex, prevents cancer, and cures athlete's foot. The publisher wants me to ghostwrite a book on this diet in collaboration with the doctor. He informs me that the advance bidding from paperback companies is already approaching a million dollars, and so is the European bidding, and my earnings are guaranteed to be at least \$250,000. What answer do I give? What should I do?

Ah, what indeed? All the push is in the wrong direction. The only thing standing in the way of this push, absolutely the only obstacle, is my own frail conscience!

I don't really know what I would do. But I suspect, in the end, my conscience would buckle.

What is needed is a countervailing push. There should be some kind of punishment for writing favorably about quackery, something to make the easy course less easy, some clearly perceived danger.

What might this be? Pressure from peer-review boards has sometimes been suggested. At present the most prominent group in the journalistic peer review business is the National News Council. This outfit, however, lacks force. The most it can do is grumble at people. Moreover, it is obvious that the Council can devote only a minor share of its time to the specific problem of medical quackery. There are too many other media problems to worry about.

Thus, it would seem, the countervailing pressure against quackery in the media must come from the medical world, not the journalistic world. It must come from some group that is concerned with this specific media problem to the exclusion of others. The group's first order of business should be to explore this problem of incentive.

Somehow, the countervailing push must be made more forceful than it has ever been in the past. Perhaps the question could be explored in cooperation with government agencies or legal groups. The point will be to create a situation in which it is as risky to give favorable exposure to Schrunkenkopf's Pills as to damn them.

An Ammunition Depot

Another reason why dubious health ideas get a lot of favorable coverage is that media folk, like everybody else, tend to be lazy. If I start out with no particular bias for or against a given issue, I will often casually adopt the bias contained in whatever material comes easily to hand. Quacks and health nuts, as a breed, are well aware of this and usually stand ready to hand any inquiring reporter a fat, juicy dossier of misinformation promoting their views. If the reporter is conscientious enough to seek a

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scientific medical opinion on that dossier, his search may go unrewarded. He may find a couple of doctors who are willing to give him the facts— "but for God's sake don't quote me by name." Or he may find nobody at all. In the end he gives up and simply writes what the dossier says.

Anti-fluoridation forces in many communities have used this phenomenon to great advantage. It is very easy to write a sensational story on the dangers of fluoride-treated water. All a reporter need do is go to the local anti-fluoride group, and the group will hand him a thick file of horrible case histories, ghastly statistics, and so on. The group, in effect, hands him his story on a silver tray. Seldom will he find a responsible medical or dental group in the community that has any such wellorganized promotion campaign. Seldom will his pro-fluoride file grow half as thick or as deliciously scary as the other one. Most often, responsible medical opinion will be represented by a couple of doctors who say, "Maybe, but on the other hand . . . and don't quote me!"

What medical science needs to do is to make good stories as easy to find as bad ones. Every county medical society ought to have a well-publicized phone number that any reporter or TV producer can call for information on any health topic. When he calls that number, he ought to be referred to a physician or group of physicians who will give him solid information on his topic, straight answers in plain English—and who, just as important, will not only permit him to quote them by name but will invite him to do so. Their story, like that of the health faddists, ought to come to him on a silver tray.

As things are today, this kind of medical response happens all too seldom. The AMA has long been a source of anti-quackery ammunition and can do an excellent job of answering media folks' questions and referring them to knowledgeable specialists. However, the AMA headquarters and press office are in Chicago. Not many media people, particularly not many who work for local publications or broadcasting stations, ever bother to make the necessary phone call.

If there were local anti-quackery ammunition depots as clever and efficient as AMA's national one, honest medical science would get its story told more fully in the media. Each depot should be set up to *welcome* media inquiries—something that has been rather rare in the past. What happens most often today, when you phone some local medical group or organization in search of a story, is that you are treated like a damned nuisance. A bored-voiced woman answers your call, listens without enthusiasm to what you want, says she will "check on it" and call you back. She doesn't call you back. You repeat the call and finally get a doctor on

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the phone. The doctor is either too busy to talk to you or too scared or both. You go away thinking, "Well, Schrunkenkopf may be crazy, but at least he's quotable \ldots ."

The medical world and the media world can surely learn to communicate better. It seems unlikely that quackery will ever be wiped out, but at least its voice can be muted.

Fighting Quackery

"Truth is always the strongest argument." —Sophocles

BY

H. WILLIAM GROSS, D.D.S. President, Lehigh Valley Committee Against Health Fraud, Inc.

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In December, 1969, a number of health professionals formed a small group to fight quackery. Local medical, dental, osteopathic, podiatric, optometric, pharmaceutical, nursing and health service organizations suggested additional members who were interested in this problem. An appeal to the local bar association brought several volunteer attorneys. By word of mouth, we attracted laymen with a variety of backgrounds—labor and industry leaders, teachers, ministers and homemakers.

At first we were sponsored by local professional societies. But we soon realized that a fast-moving, hard-hitting effort would require independence from them. So we incorporated as the Lehigh Valley Committee Against Health Fraud, Inc. Our financial support now comes mainly from individual contributions and sale of publications. With mostly volunteer labor, however, we don't need much money to be effective.

Currently, we have about 25 individual members whose interests, availability and talents are quite varied. Some are seasoned political activists, both in and out of the health field. Some are excellent writers and public speakers. Some have much time to give, others have little. All share a deep sense of fair play and interest in our fellow man. Our structure is informal, with each of us carving out his or her own niche in our action network. Although we are a "local" group, we have been able to coordinate efforts with many individuals in other parts of the United States who share our concerns.

We do many things. We testify at various government hearings. We organize letter-writing campaigns when misinformation appears in publications or when pertinent legislation is being considered. We operate a clearinghouse for many types of health information, stimulating media coverage, providing accurate information and attacking misinformation and its promoters. We exchange ideas and publications with other groups and individuals. We furnish public speakers. We monitor publications and health food stores, reporting about 50 suspected violations per year to appropriate law enforcement agencies. We advise attorneys and help them locate expert witnesses for court cases involving questionable health practices.

We also invite people who think they have been cheated in health matters to complain to us. In one such case (mentioned in Chapter 10), we helped three people recover \$13,575 from a chiropractor who they claimed had cheated them. The chiropractor subsequently had his license suspended for six months. In another case, we helped an Allentown housewife collect \$30,000 in an out-of-court settlement of a malpractice suit against an erring optometrist.

Fighting Quackery

Media Impact

Groups like ours are badly needed to balance the enormous amount of misinformation that the public receives from radio and TV talk shows, advertisements, questionable publications and private conversations between promoters of quackery and their victims. In terms of impact, perhaps the worst offenders are TV talk shows which can reach very large audiences. Some of these promote serious misinformation on nutrition while offering little or no time for nutrition scientists to present accurate information.

Our ten-year collection of data has attracted a steady stream of inquiries from health professionals, college students, journalists, congressional committees and others who are interested in questionable health practices. We have helped prepare programs for the three major television networks and worked closely with *Consumer Reports* on its articles about chiropractic, laetrile, fluoridation and mail-order quackery. These articles were then combined with others into a book on quackery which was published this year by Consumers Union.

The first (1976) edition of our major publication *The Health Robbers* has had considerable impact. It can be found in most major libraries and is being used as a reference by many journalists and health educators. Since its appearance, our Board Chairman, Dr. Stephen Barrett, who co-edited the book, has received a steady stream of invitations to deliver lectures and appear on talk shows. He was also instrumental in developing an hour-long "open mike" medical talk show that now appears weekly on our local commercial TV station.

Promotion of fluoridation has been a major committee objective. Several members of our group have testified at public hearings and we have advised fluoridation leaders in many communities. Our collection of public education materials, some of which we designed, culminated this year in publication of *The Tooth Robbers*, a handbook designed as an antidote to antifluoridation propaganda. Next year we expect to produce a book about chiropractic.

Other Pennsylvania Activity

In 1972, at the suggestion of the Pennsylvania Medical Society, the Pennsylvania Health Council established a Committee on Health Fraud to expose deceptive health practices in Pennsylvania. Its initial plan was to conduct a series of regional conferences on health quackery to which the public would be invited. The first such program, which was held in Allentown in 1973, was a great success. More than 600 people visited its exhibits and the conference received a great deal of coverage in the news media. The second program, which took place in Pittsburgh a year later, was also a success. But unfortunately, the Pennsylvania Health Council encountered financial difficulty and has discontinued its health fraud committee.

In 1973, the Pennsylvania Medical Society formed a Committee on Quackery which now serves as a clearinghouse for complaints and inquiries from Pennsylvania physicians. Most state medical society quackery committees confine themselves to exposing chiropractic, but the PMS committee is concerned about all questionable health matters which come to its attention. The committee's activities were supported initially by a Quackery Defense Fund composed of voluntary annual \$5 contributions from PMS members. More than 20,000 such donations were received. In 1979, the PMS Board of Trustees decided to discontinue the fund and include antiquackery activities in its general operating budget.

Perhaps the PMS committee's most interesting project so far has been a series of public service messages which were distributed to radio stations throughout Pennsylvania. Each one was designed by the PMS communications division to counteract a widely-held myth about nutrition. Here's a sample:

(Sound of bottles being shuffled around)

Man:	Honey, have you seen my pills?
Woman:	You mean your vitamin E pills? Don't tell

- Woman: You mean your vitamin E pills? Don't tell me you've been taking them again, Harry.Man: (Embarrassed) You mean you haven't noticed? I mean, last
- Man: (Embarrassed) You mean you haven't noticed? I mean, last night . . .
- Woman: Harry, vitamin E doesn't help your . . . uh . . . manly abilities.
- Man: (Obviously embarrassed) But last night . . . I thought . . .
- Woman: What too much vitamin E can do is give you headaches, nausea and muscle weakness. And, surprise . . . it can actually reduce your sexual potency.

Man: But, last night.

Woman: (Firmly) I should know, Harry.

Forming A Group

People sometimes ask how they might develop a group like ours in their own community. An excellent way to begin would be to form a

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reading group which meets once or twice a month. Each of the chapters of this book could be a subject for research and discussion. As your knowledge grows, learn how to communicate it in simple and interesting ways. Form a speakers' bureau and make your presence known to the media and other community groups. As you study political forces and legislation affecting consumer protection in the field of health, you may wish to write letters to publications and legislators. Because people seldom take the trouble to do this, a group of individuals writing on a regular basis can make itself felt considerably out of proportion to its size.

One group like ours was formed in 1973 in Quebec, Canada, under the leadership of Dr. Murray Katz. This group gradually became inactive, however, as its members found they could be more effective by working within the Consumer Association of Canada, the largest Canadian organization that represents consumers. Dr. Katz is now the chairman of its committee on health affairs. Two other antiquackery groups which began separately in northern and southern California merged in 1977 to create the California Council Against Health Fraud, Inc. Dr. William Jarvis, who teaches consumer health at Loma Linda University, is its president. This group, which has more than 100 active members, distributes a monthly newsletter to more than 500 interested persons throughout the United States. Membership, which costs \$10 per year, is open to anyone interested in opposing quackery. For further information, contact Dr. Jarvis at P. O. Box 1276, Loma Linda, CA 92354.

A national organization to coordinate antiquackery activities is badly needed. The AMA Department of Investigation used to do this to some extent, but it was abolished in 1975 when the AMA ran into financial difficulty. Prospects for its reestablishment are bleak.

Please feel free to contact us if you have any ideas, experiences or publications to share, questions to ask, projects to design or money to contribute. Our address is Box 1602, Allentown, Pa. 18105. If you share our deep interest, perhaps we can find ways to work together.

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The Feds

Many people believe that advertising claims must be true or else "they wouldn't be allowed." We wish that were so.

BY

IRENE L. BARTLETT Former Program Associate American Cancer Society

and

STEPHEN BARRETT, M.D. Chairman, Board of Directors Lehigh Valley Committee Against Health Fraud, Inc. Early in 1972, a housewife complained to postal authorities about a "reducing pill" called "Slim-Tabs." Sold by mail, the pill cost from \$5.98 for a 15-day supply to \$15.00 for a 60-day supply. Customers were promised weight losses of up to 48 pounds in eight weeks. During the first half of 1972, promoters of Slim-Tabs did more than \$1,000,000 worth of business.

In July 1972, however, two months after the postal investigation began, a New Jersey federal court gave permission for postal authorities to hold mail addressed to Slim-Tabs' promoters while further legal steps were taken. Early in 1973, some 58,000 letters were returned to their senders and three of Slim-Tabs' principal promoters pleaded guilty to mail fraud charges.

Though its dollar amount is higher than the usual, this case illustrates the work of the U.S. Postal Inspector in combatting quackery. The Postal Service has jurisdiction over any case which uses the mail to transfer money in payment for products or services. Five full-time inspectors work in a special division which handles health frauds. They are assisted by eight more liaison inspectors who are stationed in large cities. Additional help is available from inspectors who usually work on other matters.

Health frauds come to the attention of postal inspectors in several ways. Complaints are received from the general public, both directly and through Congressmen. Inspectors monitor ads in magazines, newspapers, and radio and television commercials. Complaints are also referred by other government agencies.

The aim of the postal inspector is to find out promptly whether false representations have been made and to stop illegal schemes before too many mail customers have been cheated or hurt. Investigation of a complaint is done in a variety of ways. Test letters may be sent by inspectors posing as customers. Sample products may be bought and analyzed by the FDA Chemical Analysis and Medical Laboratory—the largest and most modern facility in the world devoted to research on foods, drugs and cosmetics. From the thousands of complaints it receives each year, the Postal Service selects those which it feels are most significant—those which will generate a large amount of mail or which are the most dangerous to the public.

Common Frauds

Mail-order health schemes typically offer magical solutions for common problems. Beauty aid products include supposed breast developers, blemish removers, hair loss remedies and spot reducers. Weight reduction plans promise quick, effortless results. Many products claim to en-

hance sexual pleasure or performance. Other products offer to increase vitality, longevity, memory, I.Q., or to simply bring good luck. The Postal Service estimates that mail-order health schemes cost the American public more than \$150 million per year.

During the summer of 1977, the Pennsylvania Medical Society Committee On Quackery screened 500 nationally circulated magazines and found that about one-fourth of them carried ads for health products sold by mail. Altogether, about 150 such products were offered by 50 promoters. Most cost between five and twenty dollars. Not one mail-order health product appeared capable of living up to its advertised claims. By the following summer, Postal authorities had taken action against half of the sellers identified in the medical society's survey.

In 1979, Edna Gundersen, an enterprising reporter for the *El Paso Times*, recruited an army of volunteers to test 46 mail-order products whose ads looked suspicious. Most of the products were health and beauty aids and the rest were household aids. The results were published in a week-long series of articles that covered more than ten full pages. The only product which lived up to its claims was an egg-slicer.

Prosecution

The United States Code provides the Postal Service with a variety of legal weapons against false representations. Title 39, Section 3005, can be used to prevent promoters of misleading schemes from receiving money or orders through the mail. While action under Section 3005 is under way, if sufficient health hazard exists, an immediate court order to impound mail may be sought under Section 3007 of the Code. This procedure can stop a dangerous operation very quickly, but it is used only in high priority cases—such as worthless cancer cures or a treatment for facial blemishes which removes the face also. Sometimes, when a promoter finds he is under investigation, he may decide to get out of business without further ado.

Title 18, Section 1341, provides for criminal prosecution. The maximum penalties are a fine of \$1,000, five years in prison, or both. Under this section, intent to deceive must be proved—a task which can be difficult and time-consuming. Though Section 1341 is used sparingly, almost all cases actually brought to trial result in convictions.

Criminal cases, consent agreements and false representation orders are published in the quarterly *Law Enforcement Report* which is issued free-of-charge to interested media and consumer protection agencies.

A recent example of criminal prosecution is the case of Duda Adams, a "spiritual reader" who was sentenced to three years' probation by a fed-

eral judge in Austin, Texas. Advertising as "Mother McGown," "Mother Luther" and "Mother Alma," she guaranteed help within three days for illnesses, loneliness and other problems. All persons responding to the ads received identical mimeographed letters stating: "I have received your letter and found out that I could help you. I have found that you have hoodoo in your home along with sickness and love life problems. As soon as you read this letter, call me immediately at 512-447-2466, Austin, Texas."

All who telephoned were told that their problems would be solved if they sent a specific sum of money, usually \$50 (but no personal checks). Follow-up letters would then ask for more money because the problem was worse than it was initially believed to be. The Postal Inspector took action in response to complaints from victims who had spent money but received no results. More than 100 victims are known to have been taken in by this scheme. According to Chief Postal Inspector K. H. Fletcher, "Duda Adams is a member of a gypsy clan whose female members operate the same type of scheme throughout numerous states. When confronted about their activities or learning that inquiry is being made, the members move to a different location and continue their operations under a different name."

The FDA

The U.S. Food and Drug Administration has jurisdiction over labeling of foods, drugs, devices and cosmetics. Labeling is not limited to what is on a product's container. It also includes claims made in books, pamphlets, broadcasts, lectures or sales talks—as long as the claims are made in conjunction with sale of the product.

The FDA traces its roots to just after the turn of this century, when consumers needed all the protection they could get. Patent medicines which were worthless, but not always harmless, were widely promoted with cure-all claims. The country was plagued by unsanitary conditions in meat-packing plants. Harmful chemicals were being added to foods, and labels rarely told what their products contained.

The Pure Food and Drug Act, which was passed in 1906, has been strengthened by a number of amendments and related acts. Together, these various laws are concerned primarily with the accuracy and truthfulness of labeling. Under the 1938 Food, Drug and Cosmetic Act, false and misleading statements are banned from drug labels. Active ingredients must be listed, and products must be proven safe before marketing. Under the 1962 Kefauver-Harris Drug Amendments,

products must be shown to be *effective* also. The Medical Device Amendments of 1976 provide additional weapons against dangerous or ineffective devices (see Chapter 8).

FDA efforts to control health quackery are carried out mainly under three sections of the Food, Drug and Cosmetic Act. Section 502, parts (a), (f) and (j), defines misbranding. Section 301 defines prohibited acts and Section 303 describes penalties. Complaints are usually received from consumers, Congressmen, FDA field inspectors and various government agencies. Significant complaints are followed up by FDA field inspectors and evaluated by physicians and other scientists.

If investigation shows that a product is a "new drug," it must have FDA approval for movement in interstate commerce. Violation of this provision can lead to seizure and a court injunction. To be classified as a "new drug," a product does not actually have to be new. It could also be a familiar substance which has a new claim made for it. For example, a claim that wheat germ oil "prevents heart stress" would make the oil a new drug with respect to that particular claim.

Civil action will be taken in cases of minor violation. Criminal action is available for major ones. First offenders can be fined up to \$1,000, imprisoned up to one year, or both. If an offense includes intent to defraud, however, the penalty can be as much as a \$10,000 fine, three years in prison, or both. The *FDA Consumer*, which is available by subscription, describes many of the FDA's consumer protection activities.

In 1972, the FDA began reviewing non-prescription drugs to see whether their ingredients are safe and effective. The entire review process is expected to take twelve years, but many products are being reformulated in the wake of the FDA's preliminary findings (see Chapter 11).

The FTC

The Federal Trade Commission was established in 1914. Its original purpose was to safeguard businesses against monopoly and unfair competition. Five Commissioners who serve staggered terms head this agency. Control of health quackery was not a major concern of the early Commissioners. With the appointment of William E. Humphrey in 1925, however, there was a marked increase in the attack on false drug advertising. But until passage of the Wheeler-Lea Act in 1938, agency emphasis was on injury to competitors rather than consumers.

The FTC has jurisdiction over advertising of foods, non-prescription drugs, cosmetics and devices which are involved in interstate commerce.

Section 12 of the Wheeler-Lea Act allows the government to attack false advertising which could injure consumers as well as competitors. In determining what is false, what is left out may be considered as well as what is said. If a problem is serious enough, a court injunction can halt the practice being challenged until the matter can be resolved under regular procedure.

The FTC has broad powers to investigate complaints. Uncooperative businessmen—who do not answer questions, reveal documents or respond to subpoena—are subject to heavy penalties. If investigation concludes that a law violation exists, the FTC will issue a Complaint. At this point, advertisers may comply voluntarily without admitting wrongdoing. If they resist, an Administrative Law Judge will hold a hearing which can lead to a "cease-and-desist" order. Such orders become final if not appealed to the Commission. Commission decisions, in turn, are subject to appeal through federal courts.

Cease-and desist orders set forth findings and prohibit respondents from engaging in alleged illegal practices. When final, these orders act as permanent injunctions. Penalties for violating consent agreements or cease-and-desist orders can be very heavy—including prison sentences, corrective advertising, and fines of up to \$10,000 per day for continued violations. In 1976, for example, the J. B. Williams Company paid \$302,000 as a result of violating cease-and-desist orders which prohibited various claims for *Geritol* and *FemIron*, two of its patent medicines.

In addition to cease-and-desist orders, the FTC issues industry guides and trade regulation rules. Guides are interpretive statements without the force of law. Rules represent the conclusions of the Commission about what it considers unlawful. Once a rule is established, lengthy explanations of the reasons why a particular ad is unfair or deceptive are no longer necessary. A reference to the rule is enough. Before guides and rules are established, interested parties are given the opportunity to comment.

Three trade regulation rules that involve health quackery have been under consideration for the past five years. Guidelines have been proposed for testimonial advertising, protein supplements (which are commonly promoted with misleading claims) and food advertising (including "health," "natural" and "organic" food claims). Unfortunately, it appears that some of the FTC's food advertising proposals will increase deception of consumers rather than prevent it (see Chapter 18).

The FTC's activities are reported in the weekly FTC News Summary which is distributed free-of-charge to interested parties.

Advertising by Health Professionals

In recent years, the FTC has become antagonistic toward a number of longstanding practices by professional associations which the FTC believes are anticompetitive. One target has been the traditional ethical restraints against advertising by individual physicians, dentists and optometrists. The FTC believes that removal of these restraints will lead to increased competition which will lower prices. State and federal court decisions have also been breaking down legal barriers to professional advertising.

Professional groups, such as the American Medical Association, believe that practitioners who advertise lower prices are also likely to give lower quality services and that advertising may actually raise prices by increasing the demand for services. They also believe that lack of advertising restraints will encourage charlatanism. So far, there has been a significant increase in competitive advertising by dentists and optometrists. Outside of California, where flamboyant advertising of cosmetic procedures has been a serious problem, advertising by physicians has been almost nonexistent. But advertising by chiropractors has increased sharply.

In 1979, the Lehigh Valley Committee Against Health Fraud petitioned the FTC to establish a trade regulation rule to curb misleading chiropractic claims in interstate commerce. The petition was supported by affidavits from three chiropractors. Unfortunately, the FTC responded that the problem "is more appropriately handled at the state level."

Effectiveness

Many people believe that claims for health products must be true or else "they wouldn't be allowed." We wish that were so. Spokesmen for each of the above agencies told me they felt they had good laws. But it is important to understand the limitations of these laws.

Federal agencies do not have the manpower to handle all cases which are reported to them, so they must assign priorities. As a result, many fraudulent promoters escape prosecution or are lightly punished. Many promoters appear to regard defending against government agencies as "part of the cost of doing business." In other words, a minor nuisance.

Before legal action can be taken to control a fraud, it must be detected and then investigated. In many cases, rapid protection of the public is possible. The FDA can quickly ban use of an unapproved "new drug" in interstate commerce. The Postal Service may quickly block receipt of

money obtained through the mail by fraud. But many promoters make considerable profit before their schemes are detected and stopped.

Each agency has problems related to the construction of its laws. The main problem with the FTC is delay. In difficult cases, its internal procedures can take years to complete, and their effect can be postponed further by appeals through federal courts. In one celebrated case, it took the FTC 16 years to remove the word "Liver" from Carter's Little Liver Pills (which did nothing for the liver).

The FDA can also be hampered by court delay in major cases, but for the most part, its "new drug" regulation has driven false claims off product labels. Unfortunately, however, the health food industry is now able to sell its wares without making sales claims. The labels of products sold by the health food industry rarely tell why the products should be used. They don't have to—thanks to our media. News articles, books, magazine articles and radio and TV talk shows have done such a good sales job that everybody *knows* what food supplements are for.

The FDA and the Postal Service have difficulty with promoters who, after settling one case of deceptive practice, begin a new one—hoping to profit before being stopped again. Such promoters rely on the fact that criminal prosecution is not common in cases of health fraud that do not involve a direct threat to life.

Postal officials cite five reasons why criminal prosecution is not used more often in mail fraud cases:

- 1. It costs more than civil prosecution.
- 2. Victims are often reluctant to testify.
- 3. It is difficult to schedule expert witnesses.
- 4. Court sentences are often too lenient to be an effective deterrent.

5. The Justice Department, which does the actual prosecuting, views mail-order quackery as less of a problem than many other matters it handles.

Criminal prosecution for misbranding is somewhat easier because intent to deceive need not be proved. Prior to 1966, many criminal cases were initiated by the FDA. In January of that year, however, a jury failed to uphold the FDA position in a major trial of promoters of Krebiozen, a worthless cancer remedy. According to Paul Sage of the FDA's Bureau of Drugs, "that case knocked the props from under the use of criminal sanctions. Since that time, very few criminal actions have been brought by the FDA against distributors of quack remedies. Assuring the safety and effectiveness of legitimate drugs is a matter that is given much higher priority. Health fraud is flourishing as a result."

American Consumer, Inc., a branch of Film Corporation of America, appears to have been the most persistent mail-order offender. Based in Philadelphia, it has used at least 25 different company names and has had a reported annual income of \$30 million. Since 1972, more than 30 state and federal government actions have been brought against American Consumer for selling products with false or exaggerated claims. The products have included plants, weight-reduction schemes and a variety of other supposed health aids.

Media Responsibility

A great deal of quackery would be eliminated if all newspapers and magazines developed procedures to screen out misleading ads. Many publishers claim that ad screening is too cumbersome, but there is no truth to such an assertion. Many publications already do an effective job of it. Any publisher who so wishes can easily locate a trusted medical expert who would screen prospective ads rapidly and free-of-charge. The Lehigh Valley Committee Against Health Fraud has offered such service to many publishers, but so far has had no takers.

Publishers could easily develop industry standards and set up a clearinghouse to keep track of common false claims and companies that have already violated the law. Such information is easily obtainable. If the publishing industry does not establish self-regulation, the FTC could develop a trade regulation rule to force them to adopt responsible screening procedures. Laws could also be passed so that publishers of false ads can share in any civil or criminal liability of the advertiser. If medical doctors who have years of training are legally accountable for their medical advice, why should publishers be able to disseminate false medical advice with no liability whatsoever?

Consumers Union has suggested that a law be passed giving the Postal Service the power to assess civil penalties equal to or greater than the profits of mail-order thieves. Such a measure could eliminate the financial incentive to individual promoters. It might also be a good idea to give the Postal Service the power to assess civil penalties against the publishers of misleading ads. This could eliminate the financial incentive to publish such ads.

You Can Help

The best protection against fraud is an informed consumer. All three of the above agencies can provide you with information about health frauds. If you have a question, or if a "health" promotion makes you

suspicious, please contact the appropriate agency. If the product involves transfer of money through the mail, contact your local postal inspector or write directly to the Chief Postal Inspector, U.S. Postal Service, Washington, D.C. 20260. If a product label (or accompanying literature) contains questionable claims, it can be reported to your nearest FDA field office or to FDA headquarters at 5600 Fishers Lane, Rockville, Md. 20852. Suspicious advertising claims should be reported to the FTC Bureau of Consumer Protection, Washington, D.C. 20580.

In each instance, carefully note when and where you encountered the problem. Give the agency any suspicious advertisement or label. If an ad or product came by mail, include its wrapper. Tell the agency your name and address so that it can contact you if it needs further information.

Remember, the few minutes you take to report a fraud may save many people from being cheated—and might even save a life!

Recommended Reading

Fraud—The United States Postal Inspection Service and some of the fools and knaves it has known, by E. J. Kahn, Jr. The Federal Trade Commission, by Susan Wagner.

The Medical Messiahs, by James Harvey Young.

Why Quackery Persists

While the physician seeks to help his patient if he can, he must sometimes confess that he cannot. The quack need make no such confession, for honesty is not contained in his code of ethics. This gives the charlatan great advantage in competing with the physician.

> BY JAMES HARVEY YOUNG, Ph.D. Professor of History Emory University

Why Quackery Persists

Americans have generally been an optimistic people, have believed that problems are for solving. Early in this century, when quackery came to be recognized as a major problem in the health field, many observers predicted its certain death. Common sense, increasing education, the truths of science, and laws aimed at securing honest labeling would drive quackery from the marketplace. Especially as modern medicine developed and conquered one disease after another, anything so outmoded and unneeded as quackery would shortly wither away.

But this has not happened. Quite the contrary! Health quackery today is a multi-billion-dollar business, and its future prospects look brighter still. Why does quackery persist in our modern scientific era? Let us seek an explanation for this disturbing fact by examining the roles of four parties involved—the patient, the orthodox practitioner, the quack, and the regulator who enforces anti-quackery laws.

The Patient

The field of health is extremely complicated. John Doe, the common man, has absorbed a great mass of information about it. What he knows, however, is likely a jumble of chance facts learned from a variety of sources, sound and unsound, including the folklore of family tradition and the self-serving pitch of current advertising. Statistically, perhaps, most people may be nearer right than wrong, but few people escape blind spots and areas of error that make them vulnerable to deception under suitable circumstances. This goes for some John Does of mighty intellect with various degrees after their names.

When an episode of ill health looms, John Doe faces it either by selfreliance or by seeking help from a health authority. If he chooses selftreatment, he tries some remedy from folk tradition or from recent reading or television viewing. He may try garlic from the garden, a huge dose of vitamin C, or a trade-named tonic. He tends to judge results by the same rule-of-thumb common sense by which he judges everyday causeand-effect sequences: Did the axe cut? Did the suit fit? Did the motor run? He asks: Did the symptoms go away? Did my digestion settle down? Did my nerves calm? Did my sniffles stop?

John Doe does not usually realize that most ailments are self-limiting and improve with time *regardless of treatment*. When a symptom goes away after he doses himself with a remedy, he is likely to credit the remedy with curing him. He does not realize that he would have gotten better just as quickly if he had done nothing! Thousands of well-meaning John and Jane Does have boosted the fame of folk remedies and have signed sincere testimonials for patent medicines, crediting them instead of the body's recuperative powers for a return to well-being.

Nor does John Doe take the "placebo" effect into account when he judges remedies. Worry has a great effect upon how we feel when we are ill. The more we are worried about being sick, the more uncomfortable our symptoms will seem. Conversely, the less we are worried, the better we may feel. When John Doe takes a remedy that he thinks will help him, he will often feel less pain or discomfort. Feeling better when the doctor walks into the room is another example of this mechanism. The placebo effect can work in a second way. Some ailments which are body reactions to tension can subside when the feeling that a person is taking an effective treatment lessens the tension.

A considerable element of success of the legitimate proprietary remedies bought at the drugstore undoubtedly resides in the placebo effect. Spokesmen for the proprietary industry have occasionally acknowledged this. Exaggerated claims made in advertising may even build up the consumer's expectations and enlarge the placebo effect. Yet such a slim benefit does not justify exaggeration. Overuse of occasionally useful drugs poses health hazards. Youth's readiness to experiment with dangerous drugs may owe something to the attitude, conditioned by constant advertising, that a drug exists to banish almost any problem. A good deal of advertising implies that common remedies can somehow do more than relieve simple symptoms, can make a person socially desirable, can solve undesirable behavior like "snapping at your wife." Moreover, too much or too long reliance on self-dosage, in violation of label warnings, may lead people to delay getting more appropriate treatment for serious ailments before it is too late. Outright quackery, of course, operates without any of the restraints under which the proprietary industry abides and hence poses a danger greatly magnified.

The John Doe whom I have been describing so far turns to selftreatment occasionally when his normally healthy life is disrupted. Some of his unhappy cousins, however, live in constant fear of imminent health disaster. They seem governed by an all-consuming anxiety that leads to continuous self-treatment, often with bizarre "preventive" programs. An example might be taking 25 food supplement pills per day. Some beleaguered patients go so far as to follow all-inclusive systems which mix diet practices, exercises, gadgetry, and mystical philosophies. These troubled people, although a minority of the population, provide an important reservoir for quack exploitation.

Often, of course, such worriers abandon self-treatment and join a guru-

led group—just as less extreme John and Jane Does might give up selfreliance and seek help from some authority. A great deal of public confusion exists about who is a competent health authority. In a medical world so full of specialists, many people mistakenly think of chiropractors as specialists who treat back problems.

Some patients have an authority problem and tend to reject the orthodox merely because it is the orthodox. Other patients turn to unscientific practitioners under the miss-no-bets philosophy. They believe in family doctors as treaters of organic ailments and prescribers of drugs. They also believe in chiropractors as manipulators of bones and perhaps as operators of "healing" machines. They likewise follow the gospel of food faddists. And they sense nothing wrong with using several such forms of treatment at the same time, science and pseudoscience having equal importance in their minds.

One last point about the patient: When his health is seriously threatened, he obviously hopes something may be done to cure him. His desires may outrun what responsible orthodoxy can accomplish. Confronted with the possibility of chronic suffering or death, many people who never before strayed from orthodox treatment are not able to accept orthodoxy's grim verdict and so turn elsewhere. Such desperation has fattened cancer quackery.

The Orthodox Practitioner

The medical profession has always believed its current knowledge valid and has sometimes exhibited a tendency toward smugness. On occasion, true scientific breakthroughs may have been regarded as quackery. Conversely, many treatments which were once highly regarded have been abandoned as worthless. As medical science improves, of course, it becomes easier to draw the line between orthodoxy and quackery. Ignoring this fact, quacks parade medicine's old mistakes and portray themselves as scientists ahead of their time who are being suppressed by a greedy establishment.

Many people have suffered side effects from modern "miracle" drugs. This circumstance, added to the overprescribing of antibiotics, tranquilizers, and stimulants, has helped foster a stereotype of our nation being "drugged," thereby giving "natural" healers a promotional boost. In the early 19th century, quacks termed the doctor a butcher. Today they call him a poisoner.

Orthodox physicians, moreover, have a problem because of their power and status. Non-experts feel ill at ease in the presence of an expert. The patient is upset because he is sick and worried. Perceiving the physician

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as busy and under pressure, the patient may feel like an intruder. The doctor is often brusque, does not take the time to listen, neglects to explain. His prognosis may be discouraging, his therapy prolonged and unpleasant. He charges a lot, earns more, and lives better than the patient, perhaps causing irritation and envy. Some patients are just plain frightened away from reputable doctors whose rapport falls below that which quacks are able to muster. Even patients who think well of their own doctors may think ill of doctors as a group. The power side of establishment medicine has alienated many people. Organized medicine, they have felt, works for its own economic and political self-interest more than for the common good. Such an image helps quackery. For throughout history, any criticism of the power or the science of orthodox medicine has been pounced upon by the quack, magnified, and loudly trumpeted abroad.

The Quack

The unorthodox healer does not need to observe the restraints of reputable medicine. Where true medical science is complex, the quack can oversimplify. All diseases are catarrh, and Peruna cures catarrh. Where ailments are self-limiting, the quack makes nature his secret ally, crediting his tonic with curing tuberculosis when in fact nature has alleviated postnasal drip. Where the placebo effect may operate, the quack prescribes it adeptly. It may be something for arthritis as ancient as a copper bracelet or as modern as "moon dust."

The quack pays more attention to the person than to the ailment, seeking to convince the patient that the treatment is necessary. A dose of fright can be an effective persuader. Ralph Lee Smith, in his book At Your Own Risk, tells of infiltrating a school run by a Texas chiropractor aimed at teaching other chiropractors how to increase their incomes. "If the patient has a pain in his left shoulder," the professor said, his pupils should ask, "Has the pain started in your right shoulder yet?" [The so-called "Yet Disease."]

Along with fright goes tenderness. The quack manages a superb bedside manner. Since he can't really provide a cure if major disease is present, he specializes in promises, sympathy, consideration, and concern. The patient responds to this attention. This helps explain one of the odd paradoxes relating to quackery—that failure seldom diminishes patient loyalty. When regulatory agencies seek to prosecute quacks, the agencies have a difficult task getting hapless patients to testify in court. Partly this results from the desire to avoid public exposure as a dupe. But more of this objection to testifying rests on an inability to realize that

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deception has taken place. The quack has done such a good job of exuding sincerity that his explanations seem all too plausible. Even patients faced with death believe in the "kindly" man who says his remedy would have worked if treatment had only begun a little sooner.

Some points I have been making suggest that doctors might improve their human relationships. Other aspects of vulnerability may be so inherent in human nature that they can never be eliminated. While the physician seeks to help his patient if he can, he must sometimes confess that he cannot. The quack need make no such confession, for honesty is not contained in his code of ethics. This gives the charlatan great advantage in competing with the physician for the kind of patient I have described. For the quack can promise anything—tailoring his appeals to all the susceptibilities, vulnerabilities, and curiosities which human nature reveals.

The Regulator

A fabric of law aimed at circumscribing the quack has been created during this century. Regulators wielding these laws have won significant victories. The Federal Trade Commission has quashed much deceptive advertising. The Food and Drug Administration and the Postal Service have driven many fraudulent drugs and devices from the marketplace and have put some charlatans in jail. The Kefauver-Harris Act of 1962 requires that new drugs be proven effective as well as safe before they can be marketed. As a result of this law, many quack ventures have failed to see the light of day or have been quickly suppressed.

But regulation has not stifled quackery. In order to act against a deceptive health promotion, the regulator must first learn of its existence and then determine whether regulatory action is practical. Some forms of quackery escape detection and others evade prosecution because the overall budget of the regulator is insufficient to attack all of the illegal activities he observes. Matters of major public concern other than quackery clamor for his attention. Though some quack promotions are quickly stopped, others can result in lengthy court battles while the promotions continue. At times the regulator must compromise, allowing a wrongdoer to escape severe penalty because full prosecution would overtax the limited resources of the regulator. At other times, the regulator must suffer the leniency of the courts. While the average judge may become duly outraged when a victim of quackery is seriously harmed, in the majority of cases, no such victim is in sight. The con artist who peddles phony "reducing belts" for \$9.95 is unlikely to be sent to prison even if his total take amounts to millions of dollars. For small sums of money, the courts seem to feel, fools must be allowed to suffer the consequences of their folly.

The regulator's task would be eased greatly if victims of quackery would rally to his support. But an opposite trend is evident. Many victims are so thoroughly deceived that they engage in political activities which oppose the work of the regulator. When the FDA tried to limit false claims and dangerously high doses of vitamins, a coalition of vitamin sellers and their confused customers persuaded both Congress and the courts to limit FDA jurisdiction over this matter (see Chapter 19). When the FTC considered banning commercial use of the words "natural" and "organic," another avalanche of protest persuaded the agency to back down.

In some instances the regulator has been so cleverly labeled a villain in the quack's promotion that the very existence of regulation has been made to enhance quackery's appeal. Events like Vietnam and Watergate have created widespread disillusionment with our government. Inflation, the filling-out of tedious forms, and other irritating circumstances have evoked widespread assertions of over-regulation. The quack profits from such distrust. It makes him sound credible when he charges that health regulators are not interested in the welfare of the individual but are conspiring selfishly with the medical profession, the drug industry or the food industry.

Anti-government feeling certainly helped Laetrile promoters to generate the greatest public furor over an unorthodox remedy in our nation's history. Crying "freedom of choice," supporters of this quack remedy have been pressing mightily to persuade state legislators and the courts to legalize its use.

Close inspection of the "freedom of choice" slogan is in order. Freedom, one of the glorious words in our lexicon, can arouse powerful sympathy. But freedom of choice cannot operate in a vacuum. The easier it is to market unproven health products, the easier it will be to mislead people into trying them. What the quack really wants is freedom from government interference with his promotions. Laws that require proof of efficacy before marketing make it too easy, as the shady promoter sees it, to remove his products from the marketplace. The National Health Federation, an alliance of quackery promoters and their followers, has for years been working hard to convince Congress to repeal the 1962 law. Repeal of the efficacy requirement would put back on the regulator's shoulders the burden of proving that each worthless product lacked

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value—a task far more demanding than the present law requires. The resultant "freedom" would benefit only the quack whose chicanery is too sophisticated for the average citizen to recognize.

There is another aspect of the freedom theme to consider. Desperate victims and their families, having just heard a diagnosis of cancer, may soon find themselves pressed by zealous promoters to try an unorthodox remedy for which glowing promises are made. Under the double stress of fear and salesmanship, sick persons have little chance to exercise sensible freedom of choice. Such sufferers especially need the protection of experts who can evaluate alleged remedies honestly.

A special case is being made by those with false cancer remedies to sell that "terminal" cancer patients should have ready access to unproven remedies. The argument is appealing, but specious. Should swindlers be allowed to "comfort" terminal patients by selling them phony stock telling them it will make them rich before they die—on the theory that they don't need their money anyway? Moreover, even if it were possible to pinpoint the terminal state (which it is not), there is no way to open the door for one group of patients without opening it for others. The Supreme Court recognized this fact when it ruled unanimously in June 1979 that no exception to the 1962 efficacy law should be made for so-called terminal cancer patients. Congress, the high court ruled, had not intended to protect only those suffering from curable diseases.

"Freedom of choice" in this context turns out to be a way of manipulating a cherished symbol so as to free quacks from the law's restraints. We need strong anti-quackery laws enforced by dedicated regulators.

What of the Future?

Efforts to educate against the dangers of quackery have met with only modest success. Indeed, during the past two decades, the future of quackery has surely brightened because so many young people have developed attitudes which make them highly vulnerable. They have become skeptical of gigantic institutions, including big science, and look askance at reason as a way for seeking truth. Whatever merit may lie in suspecting reason's inadequacies, the reaction has often gone to an extreme of deliberate flirtation, if not liaison, with wild varieties of unreason. Astrology has soared, not as a pastime, but for real. Publishing houses have minted millions from it. During the 1960's, almost every college campus had a peripheral course in "reading the stars." Spiritualism made a comeback, with "spiritual churches" blossoming in almost every city. Tarot cards, palmistry and numerology flourished. Paperbacks on these themes were among the hottest items in university bookstores. Witchcraft and devil worship made an appearance. Many among the young turned their backs on civilization and its discontents, displaying a new primitivism, sometimes retreating into communes remotely located, sometimes merely buying "organic" foods at the nearest health food store.

Today's youth seem to be less interested in the occult, although horror movies are much in vogue, but the young are even more vulnerable to fads in nutrition. The decade of the '70s witnessed an enormous boom in the self-help search for health. Though wholesome in many ways—if the exercise, running and dieting are governed by prudence—a passionate dedication to self-help can be wasteful of money and harmful to health if guided by wrong counsel. With respect to eating, wrong counsel abounds, much of it aimed at selling books or special dietary wares.

One may strongly sympathize, I hope, with sensitive youth's criticisms of the disorders of our world. But those who embrace irrational creeds fervently, who throw themselves headlong into self-help regimens, furnish a fertile recruiting ground for unscientific health wares. For, as we have seen, quacks are agile. They sense quickly and rush in to exploit people's real concerns. Thus, for many timeless reasons, and for current reasons too, quackery may be expected to continue, to expand, to offer increasing challenge to scientific medicine.

Indeed, both friends and foes of quackery have even predicted that unorthodoxy may triumph over orthodox medical science in the great contest for allegiance of the public. "The whole tide," said one of Laetrile's articulate spokesmen recently, "is beginning to turn toward metabolic therapy for degenerative disease and preventive medicine. Laetrile . . . has been the battering ram that is dragging right along with it vitamins C and E and A and B-15, metabolic therapy, acupuncture, kinesiology . . . homeopathy and chiropractic . . . And we've done it all by making Laetrile a political issue." New coalitions of promoters of assorted unorthodoxies, employing propaganda and pressure tactics battle-tested in the health food and Laetrile campaigns, might well win other battles. "I believe the trend is so well established," a committed opponent of quackery observed a short while ago, "that its impact will produce a decline of scientific medicine."

Despite such gloomy predictions, persons who oppose irrational approaches to the major decisions of life must support both education and regulation to restrain as much as possible quackery's toll in wasted resources and human suffering.

Getting the Most From Your Doctor

Good medical care is a partnership between you and your doctor.

BY

PHILIP R. ALPER, M.D. Associate Clinical Professor of Medicine University of California Medical School

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Getting the Most From Your Doctor

Unless he is Marcus Welby, your doctor will treat more than one patient per week. He may not be able to answer all your questions or solve all your problems. He may get tired or irritable, rushed or preoccupied. He may keep you waiting. And he will sometimes make mistakes.

But don't despair. In most parts of this country, good medical care can be yours if you work at two things—finding a doctor you can trust and learning to communicate with him.

Your Doctor's Personality

Some years ago, an eloquent Texan named Max Scheid told a medical audience what he expected from his physician:

-Honesty.

- -Care for myself and family in sickness and in health.
- -Treatment as an individual with dignity from the doctor and also his staff.
- -Availability when needed.
- -Concern for soul as well as body.
- -Treatment on the adult level.
- -A charge of a customary fee.
- -Use of an accredited hospital.
- -Personal concern with the patient's health.
- -Referral to a competent physician when necessary.
- -The ability to listen as well as trust.
- -Ordering only the necessary laboratory tests.
- -A non-defensive practice of medicine.
- -Prayer for the patient.

After Mr. Scheid had finished, his doctor spoke. A warm and personal relationship existed between the two, and the doctor acknowledged this with visible pleasure.

Contrast this with auto-magnate Henry Ford II's expectation of medical care as reported in *Medical Economics* magazine. Mr. Ford wanted top-flight doctors who worked in top-flight institutions. He wasn't interested in personalities, but just in getting the job done quickly and efficiently. His expectations were all *technical* rather than *personal* or even a mixture of both. In fact, they bore a startling resemblance to automobile repair!

Obviously, these two gentlemen look at medical care differently. Mr. Scheid sees his physician as a part of his life. Mr. Ford views his as a periodic and barely tolerable intruder into his busy schedule.

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Primary Care

For first-rate care to occur, your personality and your doctor's personality must fit one another. This is especially true for so-called *primary care*—ongoing care by a doctor who knows you and is the first one you turn to for help.

Some people are more comfortable with an *institution* than with a particular physician. They may be perfectly content to be seen episodically on an out-patient basis or in emergency rooms by any number of different physicians. This is far from ideal care, but it is common in county hospitals and in some group practices such as the Kaiser-Permanente clinics and hospitals. I call this *compromise care*. With luck, a strong constitution and a basically good medical staff, it may work out.

It is far better to choose a *personal physician*. He or she may be in either solo or group private practice or in a multi-doctor clinic. Even in a group, a personal physician ally can help steer you through the medical maze while looking out for your welfare. Most groups, including the large ones, allow patients to pick a physician from their roster.

Choosing A Doctor

Your best bet is a specialist who is board-certified in internal medicine or family practice. Such a physician is sure to have taken advanced training in the diagnosis and treatment of general medical problems.

Staff affiliation with a hospital connected with a medical school indicates that a physician is working with up-to-date colleagues and is apt to be one himself. Affiliation with a hospital that trains interns and residents is also favorable. Less certain is affiliation with only proprietary hospitals especially small ones—unless they are the only ones in the area. Lack of any hospital affiliation should be suspect.

Consumer-oriented directories which list a doctor's affiliations and credentials are appearing lately. But much, if not all, of the information they contain can readily be obtained by calling the doctor's office, his hospital and the county medical society.

Other positive indicators include membership in the American College of Physicians or the American College of Surgeons (though a surgeon is not a usual choice for a primary physician). Teaching appointments in a medical school are also a good sign.

Consumerist Ralph Nader favors physicians who practice in a group rather than alone. His theory is that in a group, since doctors can watch each other, frank incompetence is less likely to occur. Although this theory has considerable merit, membership in a group is no guarantee against mediocrity. Besides, there are many outstanding solo physicians./ In 1974 the American Board of Internal Medicine offered a voluntary "recertification" exam which was taken by 4,000 doctors. This detailed test probed knowledge across a broad range of medical topics. The Board expected that physicians practicing in universities would rank highest, followed by doctors in group practice and with solo doctors trailing badly. However, the results showed little difference among the three physician categories.

My own bias is toward a well-credentialed, well-affiliated, solo physician or one practicing in a group *in the same specialty*. Should you need referral to a specialist, a first-class primary physician is likely to select a specialist of equal caliber. The defect of multispecialty groups is lack of free choice of consultants. Then again, some of these specialty groups are outstanding across the board from specialty to specialty. The Palo Alto and Mayo Clinics are examples. Some people use multispecialty groups for some of their medical care and go outside them for particular problems.

Asking a neighbor, fellow worker or relative for the name of a doctor is an exceedingly common practice, but is often criticized as unreliable. If people do it, though, there has to be a reason. Perhaps they don't know any better way. If so, the suggestions given above should help. Nonetheless, non-doctors are not entirely lacking in judgment when it comes to evaluating physicians. It doesn't take an expert to evaluate courtesy, attentiveness, whether an office is efficiently run or whether the doctor is personable and likely to get along with you. So personal recommendations *do* have a place—but a limited one.

Meeting Your Doctor

An excellent way to begin your relationship with a new doctor is a thorough physical examination when you are not ill. Such an examination will give your doctor a "baseline"—a personal health profile against which he can compare any changes in future years. This can be a big help in making a diagnosis and planning treatment later on.

A "get-acquainted" physical exam is also an ideal time to bring up any health questions which have been troubling you. "My father had diabetes. What are my chances of getting it?" Or perhaps, "What do you think of vasectomies?" Questions like these are important, but tend to be put aside during the treatment of an acute illness.

If you do not wish to have a complete physical exam, it still may pay to schedule a brief visit with your prospective doctor. Meeting him should help you decide whether he is the person you wish to consult in the future. During this visit you can also sign a release form which your new doctor can use to obtain your past medical records.

Advance "registration" has an additional advantage. Some doctors will not accept new patients under emergency conditions, particularly outside of regular office hours. Once a doctor has accepted you as a patient, however, he has a *legal* obligation either to treat you or to provide a substitute.

Having chosen a primary physician, try to learn his routine. Some doctors have printed instruction sheets for this purpose. If yours does not, ask questions. Which is his day off? Who will cover for him in his absence? Does he make house calls? Which hospital does he use? This last bit of information is especially important. Few physicians are on the staff of every hospital in town. In an emergency, ambulance drivers usually take patients to the nearest hospital—unless they are told differently. If you go to the wrong hospital, your doctor may not be able to take care of you.

Telephone Manners

Proper use of the telephone can do a lot to make your doctor's life easier while helping you at the same time to receive better service. Before you call his office, take a moment to organize your thoughts. What is bothering you? When did it begin? If you have a pain, does it come and go or is it steady? Does anything bring it on or relieve it? If you have an infection or any other reason to suspect you might have a fever, take your temperature.

Try to decide whether your problem is urgent or not. You are not expected to know all the answers, but often you will have a good idea. For example, a cold lingering on for five days is not an emergency, but squeezing chest pain may be. If in doubt, simply say, "I am not sure if this is urgent, but . . ."

It is not unusual for a busy physician to receive 50-100 telephone calls per day—many more than he could possibly handle by himself. So when you call, don't start out by asking to speak with him. His receptionist or nurse is trained to assemble the information needed for a preliminary evaluation of your situation. She is an *extension* of your doctor and will usually know which matters she can handle by herself and which ones the doctor must handle personally. After she is finished, if you still feel you must speak with the doctor, that is the time to ask.

When you telephone, have a pad and pencil handy to write down any instructions you receive. Memory is notoriously faulty. Call as early in the day as possible. That way your doctor can handle your case most efficiently—while his assistants are on duty to help him and while hospitals and laboratories are able to give their best services. Above all, avoid waiting until Friday afternoon for a problem which has troubled you all week!

When you call to ask for a prescription refill, know the phone number of your drugstore. Make your request during the doctor's office hours and before you get down to the last pill. That way the doctor can review your office record to see whether you still need the medication, whether the dosage should be changed, and so on. Such a review will make your medical care safer. If you telephone outside of office hours, many physicians (especially those covering another doctor's practice) will order only enough medication for a few days. That is the safest way in the absence of your medical records, but it does increase the cost of your medication.

In an emergency, try to telephone your doctor immediately. Don't just show up in a hospital emergency room. Advance notice to your doctor will enable him to alert the emergency room personnel so that they may begin treatment or arrange for tests that he wants. Also, it is very exasperating for a doctor to have a patient arrive at an emergency room moments after he has finished treating another patient and left the hospital.

Talking With Your Doctor

Although good communication is essential to good medical care, speaking with a doctor is not always easy. You may be afraid (What will he tell me? Maybe the worst is true?) Or embarrassed (I can't admit that. What will he think?) Or even resentful (Who does he think he is? He probably won't even be able to help me.)

Try not to let feelings like these create a barrier between you and your doctor. Instead, put the feelings to work *for* you by sharing them with him. State your prejudices and concerns such as "I don't like to take medicines." Or "I don't want to take anything that might do me more harm than good." Or perhaps "I had some bad reactions to medication in the past." You may have heard or read something or seen something on TV that strikes you as relevant to your condition. If any of these—or other things—are on your mind, be sure to mention them.

Suppose you have doubts about a recommended treatment. Voice them. Don't play a waiting game and end up with a misunderstanding which could have been avoided. Relating to a physician should not mean taking a back seat. Doctors know that how a patient feels about his treatment may influence its outcome. If you find a treatment particularly objectionable, your doctor may suggest a more acceptable alternative. Even if you are slated to disagree (let's say you think your heart condition

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would best be treated by vitamins rather than digitalis), you still owe it to yourself to hear the doctor's point of view. Approached properly, a compromise satisfactory to both you and your doctor may be possible.

Ask Questions

Doctors may sometimes be authoritarian and even patronizing. It is an occupational hazard—the result of years of counseling and treating others. Don't accept this! Ask your physician to explain *why* you are having your symptoms. Why, for example, your ulcer hurts, and why it hurts less if you drink milk. Ask what the medication he suggests is supposed to do. What will happen if the condition remains untreated. Whether there are alternative treatments. The key word is *ask*. The more you know, the more you can help yourself and help the doctor to help you.

Make sure your doctor's explanations make sense to you. Even very technical concepts can be phrased in words that are easy for non-doctors to understand. For example, why does a "spastic stomach" hurt? There are a number of explanations, but a simple analogy can make the point. Clench your fist as tightly as you can for five or ten minutes. Not only will your hand hurt, but it will get stiff and be difficult to open. In other words, the muscles go into spasm. The logic of using a drug to reduce the spasm is then obvious. Similarly, if you are tense, you can actually feel the tension in the muscles of your face or arms. It is not difficult to imagine the same thing happening inside of you. Perhaps a medication to relieve tension is in order. Or perhaps only a change in your routine. Knowing the cause of your problem is sometimes enough to relieve it.

Learn the names of your medications. Ask about their side effects and whether treatment should be stopped when you feel better or continued beyond that point. Continuing medication is especially important in painless but potentially serious conditions such as high blood pressure. Untreated, hypertension can lead to heart attacks and strokes. Patients who do not understand why they need long-term treatment often discontinue their medications and then develop complications. Lack of understanding may not be the only problem, however. Unpleasant side effects (dry mouth, stuffy nose or other uncomfortable effects of the drugs apart from their basic treatment function) may occur. If you suffer side effects, don't simply stop your medicine. Discuss them with your doctor. Often a change of dose or medicine can be worked out to your advantage.

If You Have A Grievance

As in any human relationship, miscommunications between doctor and patient are inevitable from time to time. Not long ago, I heard about a patient who left another physician "because he was cold." I was astonished, since this particular physician cared very much about his patients and I knew him to be a very warm human being. What actually had happened? The lady had a lengthy list of puzzling complaints. The doctor was concentrating intently on what she was saying, trying to organize her symptoms into a pattern that would lead to a diagnosis. His effort must have shown on his face—but the *meaning* of his expression was misinterpreted as coldness.

The lesson is clear. Don't be too hasty to judge. If you have a grievance, *voice it.* "You don't seem to care, doctor." Or, "I am not sure you are listening to me." Whatever. Perhaps the doctor really is listening. Or maybe he is tired or preoccupied with another patient's problem—or even one of his own. The doctor *himself* should appreciate being told that you are displeased so that he can either straighten out your misconception or apologize if he is in the wrong. (If he can't take such criticism, then you know he isn't the doctor for you.) Don't suffer in silence or leave the doctor's care without telling him why.

Language can cause problems too. Physicians often choose their words poorly when trying to reassure patients about minor but irritating symptoms. When a doctor says, "It's nothing," he probably means, "I think it isn't serious and should clear up by itself with time." When a doctor says, "It's your nerves," he is probably trying to say "It's your body's reaction to tension." But to some patients, such remarks may sould like an accusation that they are imagining or exaggerating their symptoms. Medical school does not turn doctors into linguists. (Quite the contrary.) If a doctor's clumsy shorthand remarks bother you—say so and ask for a fuller explanation. I would caution, however, that not every ailment warrants a lengthy explanation or an intensive series of diagnostic tests right away. Most illnesses are self-limiting. So be prepared to accept an answer like, "If your problem does not clear up in the near future, we can explore it further."

While preparing this chapter, I took an informal poll among physician colleagues. The need for patients to voice their grievances was a recurrent theme. A typical comment: "If you have a problem with a doctor—his office, his bills, or him—let him know. He'll appreciate it and try to help." Resolving disagreements and dissatisfactions can do much to build bonds between human beings. Consultation or a change of doctors will always be possible. You'd be surprised, however, how often a strong mutual understanding can develop in spite of some initial friction. Two quick illustrations will show how this works.

Dr. X was attending a man who was having a third operation to salvage

Getting the Most From Your Doctor

a knee which was badly damaged by arthritis. One day, as the doctor was about to leave the hospital room, the patient asked him to sit down. "I wouldn't tell you this if I didn't like you and feel that you would want to know," said the patient with masterful tact. "But you are in and out of here like a flash. Some patients would get the idea that you are only interested in rushing around to make more money."

Dr. X was shocked. There were many excuses—emergency calls, hospital committee work, and the like. But as he thought about it, the doctor realized that although he himself handled only the patient's nonsurgical care, the man's bad luck with surgery frustrated and bothered the doctor so much that he cut his visits short. Instead of offering excuses, Dr. X told the truth. The exchange cleared the air and solved the problem.

The other incident involved a healthy woman who had been checked routinely by Dr. Y for many years. He knew her and her family well. On the morning of her appointment, three unscheduled patients arrived one after another with urgent problems. Normally, Dr. Y was able to stick to his schedule well, so the woman was waiting patiently. When the third emergency patient was taken, the doctor's nurse told her that there would be an additional delay. Rather than wait any longer, the patient scheduled a new appointment. But instead of keeping it, she sent a request to Dr. Y to transfer her records to another physician.

Dr. Y might simply have complied, but the incident didn't sit right with him. So he telephoned the patient's husband. The patient was upset about both having to relieve her daughter who was covering her job and "seeing three people who came in after me go in first—especially after ten years as a patient." After explaining the circumstances to the husband, Dr. Y added his hope that the relationship would not end on a sour note. "I would be happy to speak to your wife if she would like to call," he concluded.

Shortly afterward, the patient did call. She had a point. The nurse could have told her earlier about the additional delay. But the doctor had a point too. "You have been lucky never to have had an emergency yourself," he said, "but if you had, *you* would have bumped the schedule and someone else would have been unhappy." The conversation ended pleasantly, and the appointment was rescheduled.

Remember, good medical care should be a partnership, with open twoway communication between you and your doctor. Like most things in life, it is available to those who work for it.

A Final Comment

Nobody likes to think of himself as someone who would go to a quack. Yet quackery is thriving. *The Health Robbers* was written to protect you from being a victim. Our fond hope is that it will also arouse you to take action.

We need your help. If you have been helped by your study of *The Health Robbers*, please:

1) Recommend the book to your friends.

2) Urge your local school and public libraries to obtain copies.

3) Ask the editors of publications to which you subscribe to review the book.

4) Report questionable health matters to appropriate government agencies and to us.

Remember, in matters of health, there should be no tolerance for deception. Your effort in opposing quackery may save many people from being hurt—and may even save a life!

> -The Lehigh Valley Committee Against Health Fraud, Inc. P.O. Box 1602 Allentown, PA 18105 215-437-1795

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