

# PMA

PMA (para-methoxyamphetamine) is an amphetamine-type drug with both stimulant and hallucinogenic properties. It has no medical use. Its effects are similar to those of drugs such as MDMA or MDA, although PMA is much more potent and far more toxic.

In 1973 PMA was first identified in Canada after the deaths of nine young people were confirmed to be caused by the drug between March and August of that year. There were also three PMA-related deaths suspected and two deaths confirmed in the USA during that time. From 1974 to early 2000, no deaths were attributed to PMA in North America. Since 2000, however, there have been ten deaths in various parts of the USA, including seven deaths in central Florida. PMA has also been associated with four deaths in European countries including Austria, Denmark and Germany, with reports that the victims died after consuming what they believed to be ecstasy.

PMA has been linked to a number of Australian deaths over the years. Six people died in South Australia between September 1995 and January 1996 after taking PMA, either alone or combined with MDMA. All indications are that the users believed they were taking MDMA alone and did not realize that PMA was present in the tablet they used.

Initially, it was assumed that PMA was created as a contaminant during the synthesis of MDMA and was being disguised and substituted for MDMA by dealers attempting to offload the drug. However, this is now considered unlikely, as the chemical precursors of PMA and MDMA are different.

The toxicity of PMA is related to excessive central nervous system stimulation. Users may experience hallucinations, delirium, restlessness, agitation, muscle contractions, thrashing around, rigidity, sweating, high fever, seizures, coma and death. It has been estimated that PMA's effects may be seen by taking approximately 50 mg. An ecstasy tablet can weigh anything from 150-200 mg and can contain up to 50% of active material, so it would not take many pills to cause a problem.

Ingesting a dose of less than 50 milligrams without other drugs or alcohol, induces symptoms reminiscent of MDMA. These effects may include:

- increased pulse rate and blood pressure
- increased and labored respiration
- elevated body temperature
- erratic eye movements
- muscle spasms
- nausea
- heightened visual stimulation

Doses over 50 milligrams are considered potentially lethal, especially when taken with other drugs, such as amphetamine derivatives, cannabis, cocaine, prescription medications like fluoxetine (Prozac), and alcohol.

Higher doses can produce:

- cardiac arrhythmia and arrest
- breathing problems
- pulmonary congestion
- renal failure
- hyperthermia
- vomiting
- convulsions
- coma
- death

Since 2000 there have been a number of warnings issued around the world concerning ecstasy pills which have become known as 'red Mitsubishi'. In some parts of the world analysis has shown that some of these pills have contained PMA. However, it is important to be aware that not all pills with the red Mitsubishi logo contain PMA.

Recently PMMA (para-methoxymethylamphetamine) has also been identified in some ecstasy pills. PMMA is related to the amphetamine family and is very similar to PMA. It is almost exclusively sold in combination with PMA and taken by people believing the drug to be ecstasy. It has been linked with three recent deaths in the European Union.

The greatest problem linked to the substance has been the un-MDMA-like effects of PMMA, even when combined with PMA, which appear to have been regarded by the unsuspecting user as either a weak pill or that their tolerance to the effects of MDMA has increased. As a result they take more pills and subsequently overdose.

There have been a number of animal experiments using PMMA which indicate that there is a narrow margin between the active and lethal dose of PMMA. Therefore it is believed that there is a high risk of poisoning for humans - something we rarely see with MDMA. There are also risks resulting from using the drug with alcohol, MDMA, amphetamines and ephedrine.

As it becomes more difficult to manufacture MDMA, chemists create other recipes, sometimes producing far more toxic chemicals than a true ecstasy pill. It is believed that some manufacturers intentionally make drugs such as PMMA to avoid prosecution if they are caught, as there are currently no laws regarding their production.