

TRANSPORTING SPECIMENS WITHIN THE UNITED STATES

THIS GUIDE HAS BEEN DEVELOPED TO MEET THE FOLLOWING OBJECTIVES:

- · Provide instructions for packaging specimens.
- · Provide information about supplies.
- Use as a tool for training additional staff members.

SPECIMEN INTEGRITY

Specimens must be packed and shipped properly for accurate testing, which helps ensure that patients receive optimal treatment. A specimen may not be viable for testing if it becomes too cold or too hot. It may be necessary to collect another specimen from the patient, which may delay treatment. People's lives may depend on our work.

Mayo Clinic Laboratories' goal is to ensure that all medical specimens arrive at the testing facility:

- At the correct temperature for testing.
- Intact in the container, without breakage or leakage.
- In the shortest possible time.
- In compliance with all applicable regulations.

COURIER SUPPORT

Mayo Clinic Laboratories' Global Logistics Specialists are available Monday through Friday, 6 a.m. to 4:30 p.m. CT. For emergency support 24 hours a day, 365 days a year, call 800-533-1710.

TABLE OF CONTENTS

PACKING

Tacking opecimens	
Preparing the Styros	
Stool Specimens	
Muscle Biopsy	
Critical Ambient Specimens	1
Packing Other Materials	

LABELING

Culture Specimens 12

SHIPPING

Shipping Instructions 14
Category B, Biological Substances 15
Category A, Infectious Substances 16

LEAKS & SPILLS

Safety 18

OVERVIEW

PACKAGING SPECIMENS

Clients will have specimens ready for pickup in Mayo's color-coded temperature bags. All specimens must be shipped in a leak-proof container regardless of transport temperature. The color-coded bags also contain material that can absorb the full liquid content of the specimens placed inside.



PACKING

SPECIMENS MUST BE SEPARATED BY TEMPERATURE, AND EACH OF THESE TEMPERATURE BAGS MUST BE PACKAGED IN A SPECIFIC MANNER.

Mayo Clinic Laboratories provides a raspberry-colored shipping box that holds two Styrofoam (Styro) containers inside. Styro transportation coolers provided by Mayo Clinic Laboratories have corresponding color-coded labels and contain appropriate labeling for dry ice and biohazards. One of the Styro containers holds the cool packs needed to keep refrigerate/ambient specimens cool for up to 48 hours.

ORDER STARTER SUPPLY LIST

- T347 Ref/Froz 10LB Express Shipping Box Case
- T258 Tape Packing
- T128 Gloves
- T127 Gloves M
- T126 Gloves L
- T129 Gloves XL

- T001 Frozen Stool Shipping Box, 10LB (Case)
- T160 Cool Pack
- T549 "C" labels
- T684 "Contains no dry ice" labels
- T677 Sticker, Frozen Specimen
- T678 Sticker, Refrigerated Specimen
- Shipper's Declarations (if applicable)

Critical Specimens Only

A boxes)

• T668 Ambient Shipping Box -

T570 Infectious Shipper (Category)



4 | UNITED STATES SHIPPING GUIDE | 5

PREPARING THE STYROS

Prepare to pack the refrigerate/ambient specimens in the same Styro. The lid of the Styro has a pink label to indicate refrigerate specimens and a white label to indicate ambient specimens. Specimens should be in temperature color-coded bags that should match the color of the label on the Styro lid. Put on gloves prior to placing the specimen bags into the Styros.

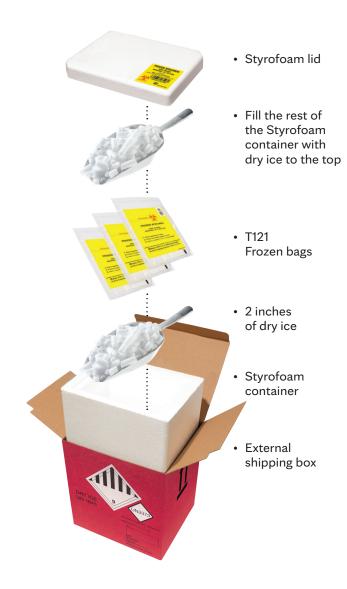
For the frozen Styro, which can be identified by the yellow label on the lid to indicate frozen specimens, pellet dry ice is preferred. Block dry ice must be reduced to small pieces (1 to 2 inches) to minimize the chance of damage to bags and vials. Place two inches of dry ice in the bottom and have additional dry ice in a bag that you can easily remove when collecting specimens. At every stop, remove the bag of dry ice, place the specimens inside the Styro, and place the dry ice bag on top so the specimens are surrounded by dry ice. Everything should be packed in the order shown on the right.

IMPORTANT: To avoid burns, always wear cloth gloves and safety glasses when handling dry ice.

Packing: Refrigerate/Ambient Combined



Packing: Frozen



UPON ARRIVAL AT THE LAB FOR PICKUP:

- 1. Locate the refrigerated specimens at the client site. If they are using Mayo Clinic bags, they will be pink. Scan all the batches.
- 2. Open the lid of the refrigerate/ambient Styro. Remove any ambient specimens from previous pickups. Insert the pink refrigerate specimen bags in the Styro. Place two paper towels over the refrigerated specimens, separating them from the ambient specimens. Replace the ambient specimens and immediately close the Styro lid.
- 3. Locate the ambient specimens and scan the batches. Mayo Clinic bags for ambient specimens are white. Open the lid of the refrigerate/ambient Styro and place two paper towels over the top of the pink refrigerate bags.
- 4. Insert the white ambient specimen bags. Ambient specimens go on top of the refrigerated specimens, separated by paper towels.
- 5. Place a nonrefrigerated cool pack at the top of the Styro and immediately close the lid of the Styro.
- 6. Then move to frozen specimens. The lid of the Styro will have a yellow label to indicate frozen specimens, matching the color of the bag.
- 7. Locate the frozen specimens and count the bags. Make sure all the bags have yellow labels matching the sticker color on the lid of the Styro. Scan the batches.
- 8. Under normal conditions, 2.2 kg (5 lbs.) of dry ice will keep the specimens frozen until they arrive at the laboratory.

REMINDER: Do not fill the frozen Styrofoam shipping container too full of specimen bags. Leave room for dry ice on top of the topmost specimen shipping bag and make sure the Styrofoam lid fits tightly. On a passenger aircraft, such as Delta or American, put 2.2 kg (5 lbs.) of dry ice in the Styro. FedEx or charter flights allow more, because there is a higher maximum weight for dry ice on a cargo aircraft.

6 | UNITED STATES SHIPPING GUIDE UNITED STATES SHIPPING GUIDE

STOOL SPECIMENS

Mayo Clinic Laboratories provides clients with special containers for stool specimens. We prefer that stool specimens be packed in these containers. Any substitute containers must have a screw cap and be leakproof. A special 10-lb. Styro in its own box is used for shipping one or two stool containers. Large-volume stool containers must not be mixed with other specimens. They must be shipped in a separate Styro. Special stool containers may be located in the client's freezer or refrigerator.

THE PROCEDURE FOR PACKING STOOL CONTAINERS IS AS FOLLOWS:

- 1. After packing all other specimens, couriers should discard latex gloves, wash their hands, and prepare a 10-lb. Styro out in the transport vehicle. (If there are more than two stool containers to pick up, use both Styros in a full-sized double 10-lb. box set.)
- 2. If the stool containers are in the freezer, put a 2-inch layer of dry ice in the bottom of the Styro. If the stool containers are in the refrigerator, put a cold cool pack in the Styro with two paper towels on top.
- 3. Bring the stool container box into the lab. Put on a fresh pair of latex gloves before entering the lab.
- 4. Pack the stool containers in the 10-lb. Styro.

REMEMBER: No other type of specimen can be packed in the same Styro with stool containers.

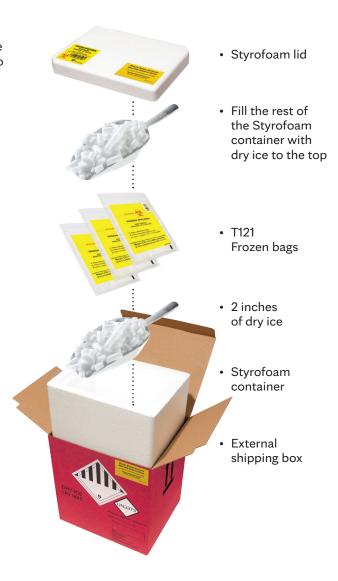
Packing: Stool Specimen



MUSCLE BIOPSY

Mayo Clinic Laboratories provides clients with special containers for muscle biopsy specimens. A special 10-lb. Styro in its own box is used for shipping these biopsies in a small container, completely surrounded by dry ice. They must be shipped as packaged by the client and must not be opened unless specifically directed by the client or by Mayo Clinic Laboratories (for example, to add dry ice in the case of a delayed shipment).

Packing: Muscle Biopsy



8 | UNITED STATES SHIPPING GUIDE UNITED STATES SHIPPING GUIDE | 9

CRITICAL AMBIENT SPECIMENS

Mayo Clinic Laboratories provides clients with special containers for critical ambient specimens, such as bone marrow and some whole blood specimens that would be ruined if allowed to get too cold.

A 10-lb. Styro inside a white fibreboard shipping box (T668) is used for shipping these critical ambients, which are completely surrounded by six room-temperature cool packs. They must be shipped as packaged by the client and should not be opened by the courier unless specifically directed to do so by the client or by Mayo Clinic Laboratories. If the client has critical ambient specimens but does not have a Mayo Clinic Laboratories Critical Ambient white box, the courier should package those bags surrounded by six room-temperature cool packs in a separate Styro and box.

Packing: Critical Ambient Specimens





CULTURE **SPECIMENS**

the box.

You will see a blue "C" sticker on the bag and batch sheet of any culture specimen. In this case, place a blue "C" sticker on the Styro containing the culture and also on the outside of your berry box. Be sure not to obscure any other labels on (ROUTINE) SPECIMEN Properly labeled, Culture Specimen packaging

GENERAL INSTRUCTIONS FOR PACKING SPECIMENS:

- Never take the lids off both Styros at the same time. When both lids are removed, it is easy to mistakenly place the lids on the wrong Styros.
- Never overfill a Styro or compress the specimens. If the lid will not fit securely on a Styro, use another box.
- If the temperature of a specimen does not match its label (for example, if a specimen with a pink refrigerate label is in the freezer), ask a laboratory staff person how it should be transported. If it is in the wrong bag or container, ask the person to repackage it.
- · Do not leave a box containing specimens in an unlocked car. Always enter a facility carrying the box.
- · Do not place any documents, packages, envelopes, and so forth, outside of the Styros in the box.
- · Pack extra cool packs.
- Put at least three extra cold cool packs and a dozen paper towels in the refrigerate/ambient Styro of another berry box. It may be necessary to ship more than one refrigerated Styro.

IMPORTANT: Refrigerated specimens cannot be shipped without a cold cool pack, so it is very important to have extras.

For additional assistance or questions regarding specimen packaging, supplies, or shipping, contact Mayo Clinic Laboratories at 800-533-1710 or visit www.mayocliniclabs.com.

SAFETY IN THE LABORATORY

Mayo Clinic Laboratories' packaging materials are designed to protect everyone who handles them. However, couriers should always take special precautions in a laboratory:

- · Wear latex gloves in the laboratory. Cover any existing cuts or scrapes with a bandage.
- · Wash hands before leaving each laboratory.
- Open-toed shoes are not acceptable in the laboratory areas.
- · Do not put the box down in a spill (wet) area.
- · Do not touch any specimen bag or container that appears soiled. Ask a laboratory staff person to place the specimens in another bag for safe transportation.
- In the event of a cut or puncture to the skin in the lab, tell a laboratory staff person immediately.

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12 | UNITED STATES SHIPPING GUIDE **UNITED STATES SHIPPING GUIDE** | 13

SHIPPING INSTRUCTIONS

Preparing the box to tender

- 1. Dump the dry ice from the bag directly over the bags to cover the specimens in the frozen Styros with pellet dry ice.
- Wear safety glasses and cloth gloves when handling dry ice.
- If no frozen specimens are being shipped, carefully transfer the dry ice from the frozen Styro to the dry ice container and ship that Styro empty.

IMPORTANT: Never leave dry ice where people might burn themselves on it. Do not dump it in a parking lot, a drinking fountain, or a restroom.

- 2. Close the shipping box and seal it with packaging tape.
- Do not fold the handles down and tape the box until finished with all pickups.
- Do not seal all the edges of the box. Dry ice emits a gas, which must be allowed to escape. Do not tape the Styro lids.
- 3. On the outside of the box, write "2.2 kg of dry ice being shipped."
- Usually, shipments include some frozen specimens.
 Mayo Clinic Laboratories' shipping box has the words
 "Dry Ice" next to the Class 9 hazard label and includes a place to write in the weight of the dry ice (in kilograms) on the box.

IMPORTANT: If the shipment does not include dry ice, the dry ice label must be completely covered up either with tape, paper, or a marker.

IMPORTANT: Always ship both Styros in the Mayo Clinic Laboratories box set, even if one Styro is empty. Never take one or both Styros out or put specimens directly in the box. Wear latex gloves any time you reach into a Styro that contains specimens. Pictures of the boxes are also very helpful. In case there are issues with the shipment, they help on the investigation showing that the courier followed the process correctly.

The end of the courier's route is the carrier's drop-off location. Take the shipping boxes inside and hand them over to the airline's receiving person.

BIOLOGICAL SUBSTANCE, CATEGORY B

This is a Mayo Clinic Laboratories box properly labeled for a Biological Substance, Category B shipment, along with the FedEx shipping label.



 Properly labeled, certified Biological Substance, Category B package Before shipping a Biological Substance, Category B package, make sure to remember the following:

- The UN3373 marking must be on all boxes shipped by air and containing Biological Substance, Category B. The words "Biological Substance, Category B" must be written legibly on the outside of the box for both air and ground shipments.
- Write the complete shipper information, including the name and telephone number of the person responsible for the shipment.
- If you are shipping dry ice, the Class 9 label is required.
- Write the amount of dry ice in kilograms. If you are NOT shipping dry ice, obscure this label completely.

SHIPPING

14 | UNITED STATES SHIPPING GUIDE | 15

CATEGORY A INFECTIOUS SUBSTANCES

The following information describes Mayo Clinic Laboratories' methods of packaging and shipping Category A Infectious Substances. We also provide detailed Dangerous Goods Training.

The packaging certified to transport infectious specimens legally and safely is a combination package consisting of inner and outer containers that have passed all tests required by IATA and DOT. Mayo Clinic Laboratories provides a certified shipping container (T570).

This combination package is certified to transport Category A Infectious Substances only if it is used properly. The box and the inner container by themselves are not considered certified.

LABELING CATEGORY A INFECTIOUS SUBSTANCE SHIPMENTS

Before shipping a Category A Infectious Substance package, make sure to remember the following:

- The UN2814 marking must be on all boxes shipped by air and containing Infectious Substances Affecting Humans, Category A.
- Write the complete shipper information.
- A Shipper's Declaration is required with all Category A shipments.
- Fill out three copies of the Shipper's Declaration. Keep one and place the other two inside a plastic pouch attached to the box, so the paperwork will arrive safely at the destination.



CLIENT PREPARATION

It is not up to the courier driver to decide what is Category A Infectious Substance or Biological Substance, Category B. The physician or send-out staff at the hospital lab will perform that function. Couriers will know that they are handling and transporting a box marked UN2814 Infectious Substance Affecting Humans.

The client places the specimen in a primary receptacle (such as a tube or a vial) and puts the primary receptacle into a certified container. The container is placed in one of Mayo Clinic Laboratories' color-coded bags. The client will place the bagged container in the white certified box.

SHIPPER'S DECLARATION

Fill out the required sections of the Shipper's Declaration, including:

- The airbill number.
- 2 The airport of departure.
- Total volume. If unknown, enter 10.
- The printed name and title of the person making the shipment, city, state, date, and the signature of the person making the shipment.

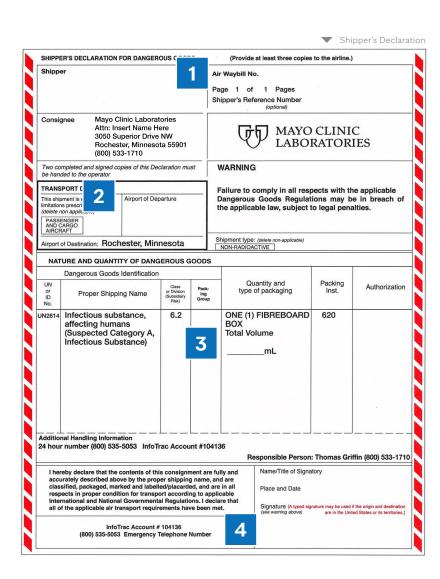
IMPORTANT: Do not write anything other than what is instructed above, or shipment may be rejected, delaying patient results.

PACKING CATEGORY A INFECTIOUS SUBSTANCES

Do not package Category A Infectious Substance specimens with Biological Substance, Category B specimens. Category A Infectious Substance specimens must be shipped in certified packaging. Because many passenger airlines have restrictions or exclusions on shipping Dangerous Goods, Mayo Clinic Laboratories recommends that any infectious shipments sent to our laboratories are sent via FedEx.

Follow this procedure:

- When making a pickup at a hospital, place the certified containers with infectious specimens inside a certified T570 box.
- Remember that shipping the infectious box via air will involve filling out a Shipper's Declaration as well as a paper FedEx airbill.
- Biological Substance, Category B specimens may be shipped as usual via the courier's scheduled carrier in another box.



16 | UNITED STATES SHIPPING GUIDE 17

▲ Shipper's Declaration

TO BE SAFE, TREAT EVERY SPILL AS IF IT WERE INFECTIOUS. IF ANY SPECIMEN CONTAINER IN THE LABORATORY APPEARS TO BE LEAKING, DO NOT TOUCH IT. BRING IT TO THE ATTENTION OF LAB PERSONNEL FOR REPACKAGING. DO THIS EVEN IF THE LEAKING CONTAINER IS INSIDE ANOTHER BAG.

If something spills in the lab, immediately bring it to the attention of a laboratory staff person. Apologize, but let the laboratory staff clean it up. Make sure no one touches or walks through the spill.

IF A LEAK OR SPILL OCCURS AWAY FROM A LABORATORY, THE COURIER WILL HAVE TO CLEAN IT UP, USING EITHER A COMMERCIAL CLEANUP KIT OR BLEACH AS FOLLOWS:

- Always wear latex gloves when dealing with a spill.
- If a spill is large, blot up as much as possible with a paper towel.
- Any materials used to clean up a spill, including paper towels and gloves, should be sent to Mayo Clinic Laboratories in a separate Styro and box.
- Put a large note on top of the Styro with the words "LEAKING SPECIMEN." If the specimen was infectious, put all of the contents into a certified container/box with the infectious substance label and write "INFECTIOUS LEAKING SPECIMEN" on top of the Styro.
- On the note, include the courier's name, whose specimen it was, where the leak or spill occurred, and any other relevant details.
- Be sure to note on the appropriate Specimen Control Document that one specimen from that box has been shipped in a separate Styro and why.
- If a container is leaking inside a bag, immediately secure it inside another Mayo Clinic Laboratories bag and ship it in a separate Styro.

ANY LEAK OR SPILL SHOULD BE REPORTED IMMEDIATELY TO MAYO CLINIC LABORATORIES OR THE COURIER'S EMPLOYER. DO NOT WAIT FOR THE END OF THE RUN.

Call Mayo Clinic Laboratories immediately at 800-533-1710 and ask for the Global Logistics Department. Be sure to communicate whether the courier or anyone else came in contact with the specimen.

LEAKS & SPILLS



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