Packaging Clinical Samples
Guidelines for Clinical Samples
This brochure outlines the guidelines for shipping with FedEx Express. In addition, all shipments must comply with all applicable local, state, and federal laws governing packing, marking, and labeling. Blood, urine, fluids, and other specimens containing or suspected of containing infectious substances must be shipped according to applicable government, International Air Transport Association (IATA), and International Civil Aviation Organization (ICAO) regulations.

For the purposes of this guide, clinical samples are generally defined as non-infectious human or animal materials including, but not limited to, excreta, secreta, tissue and tissue fluids, blood, and FDA-approved pharmaceuticals that are blood products.

General Packaging Guidelines

Liquid Samples
1. Primary watertight inner receptacle. Use watertight containers for liquid specimens with a positive closure such as a screw-on, snap-on, or push-on lid, taped for an additional seal. If you place multiple fragile primary receptacles in a single secondary receptacle, individually wrap or separate them to prevent contact between them.

2. Absorbent material. Place absorbent material between the primary and secondary receptacles, using enough material to absorb the entire contents of all primary receptacles. Suggested absorbent materials include cellulose wadding, cotton balls, super-absorbent packets, and paper towels.

3. Secondary watertight inner receptacle. Use a watertight sealed plastic bag, plastic canister, or screw-cap can.

4. Sturdy outer packaging. Use sturdy outer packaging such as corrugated fiberboard, wood, metal, plastic, or other equally strong material, including cylinders made of such materials and appropriately sized for the contents. Chipboard or paperboard boxes, paper envelopes, and plastic bags are unacceptable outer packaging. The completed packaging must be of good quality, strong enough to withstand the normal rigors of transportation without loss of contents as a result of vibration, changes in temperature, humidity, or pressure.

Dried Samples
Place dried samples, including but not limited to hair, swabs, or dried blood, into a sealed paper or plastic envelope and then into a 6" x 8" or larger mailing envelope. The FedEx® Clinical Pak may be used. Cushion samples on glass or plastic slides and package in a sturdy outer container to prevent breakage and puncturing.

Note: If the dried sample is placed in a receptacle with a liquid preservative, then follow the packaging guidelines for liquids.

Packaging Examples

Primary Watertight Receptacles

Taped plastic canister

Taped glass or plastic jar

Taped glass or plastic vial
Marking and Labeling
Mark the package as “Exempt Human Specimen” or “Exempt Animal Specimen” as appropriate. If you prefer, package markings may be in the form of a label.

FedEx Clinical Packaging Options
For your convenience, we offer the FedEx Small Clinical Pak, FedEx Large Clinical Pak, FedEx Medium Clinical Box, and the FedEx Large Clinical Box as packaging options for exempt clinical-sample shipments. We recommend the FedEx Clinical Paks for use when the sturdy outer packaging of your properly packaged shipment is smaller than the minimum acceptable package size 7” x 4” x 2” (17.78 cm x 10.16 cm x 5.08 cm).

To help ensure the timely delivery of your shipment and the safety of shipments exposed to yours, our clinical paks and boxes help your clinical shipments stand apart from other shipments.

To order FedEx clinical packaging, go to fedex.com or call 1.800.GoFedEx 1.800.463.3339.

FedEx Clinical Packaging Options for Purchase
FedEx offers five cold shipping boxes as part of the FedEx Temp-Assure® portfolio of products for purchase. These boxes can be used as outer packaging to ship temperature-sensitive clinical samples via FedEx Express services.

Each box includes a chilling unit activated by the shipper and placed in the box with the shipment. The unit continuously evaporates small amounts of water at low pressure, keeping the shipment at 2°C to 8°C for up to 48 or 96 hours,* depending on the packaging option chosen.

*Actual cooling duration varies, depending on external temperatures.
Packaging Guidelines for FedEx Clinical Paks, FedEx Clinical Boxes, and FedEx Temp-Assure Cold Shipping Boxes

- The FedEx Large Clinical and the FedEx Small Clinical Paks are overwraps primarily designed for easy identification and to handle smaller completed packages.
- The FedEx Large Clinical and the FedEx Small Clinical Paks can only be used to ship clinical samples. If you need an overpack for shipments of Biological Substance, Category B (UN 3373) materials, use the FedEx UN 3373 Pak.
- Liquid blood and liquid blood products must always be placed in sturdy outer packaging before being placed in a FedEx Large Clinical or a FedEx Small Clinical Pak.
- The FedEx Large Clinical and the FedEx Small Clinical Paks can be used to ship dried samples when packaged according to the dried sample guidelines.
- The FedEx Medium Clinical Box, the FedEx Large Clinical Box, and the following Temp-Assure cold shipping boxes can be used to ship clinical samples: Small Cold Box (2–8°) Standard Duration (48 Hours); Medium Cold Box (2–8°) Standard Duration (48 Hours); Medium Cold Box (2–8°) Extended Duration (96 Hours); Large Cold Box (2–8°) Standard Duration (48 Hours); and Large Cold Box (2–8°) Extended Duration (96 Hours). Other FedEx packaging is not acceptable as outer containers for clinical samples.
- Shipments marked or labeled as hazard class 6.2 (infectious materials) and shipments containing dry ice cannot be shipped in FedEx packaging.

If you have questions about whether your shipments require a biohazard label, consult the Occupational Safety and Health Administration (OSHA) for the applicable regulations.

NOTE: You may drop off properly packaged clinical samples in most FedEx Express® Drop Boxes in the U.S. and Puerto Rico.

- FedEx Office® Print and Ship Center locations and FedEx Ship Center® locations accept clinical samples properly packaged in FedEx packaging.
- Refer to the Service Guide, Terms and Conditions, Dangerous Goods section, for current limitations on locations that cannot accept clinical samples. Information is also available in the Terms in Conditions on which locations do not accept UN 3373, Biological Substance, Category B.

For more information, go to the Service Guide at https://www.fedex.com/en-us/service-guide.html or call 1.800.GoFedEx 1.800.463.3339 to be directed to a FedEx location equipped to handle these shipments.

Contacts and Resources

- How to Pack guidelines at fedex.com/packaging.
- FedEx Dangerous Goods seminars and job aid at fedex.com/dangerousgoods.

NOTICE:

FedEx Express may refuse to accept packages that do not meet FedEx Express, government, or IATA and ICAO requirements. This brochure is in no way intended to replace requirements mandated by 49CFR and IATA. This is for informational purposes only.