

Procedure for Handling and Shipping Muscle and/or Nerve Tissue to Vanderbilt Neuropathology

VPLS: (account and shipping info) 615-936-0510 or
1-800-551-5227, x4

Division of Neuropathology: (technical) 615-322-3998 or
1-800-551-5227, x8 Fax: 615-343-7089
www.labVU.com

Please notify Neuropathology that you are sending a sample:
Division of Neuropathology 615-322-3998 or 1-800-551-5227, x8

****The Neuropathology lab receives biopsies Monday – Friday 7:00 AM - 3:30 PM.**
The lab is closed on weekends and holidays (including Christmas Eve.)

Use FedEx FIRST Overnight
(we can provide shipping labels and shipping supplies)

VUMC Neuropathology
1161 21st Ave. South
C-2318 MCN
Nashville, TN 37232-2561
615-322-3998

Muscle Biopsies

Muscle samples should be fresh and be at least 1.0 cm in length, 1.0 cm in width, and 1.0 cm in depth. More material will be needed if metabolic or mitochondrial studies are required. The surgeon should be instructed to place the specimen on a telfa-pad lightly moistened with saline. Do NOT immerse in saline. Muscle clamps and sutures should NOT be used. Specimens must be accompanied with a **completed requisition & clinical information.**

Method 1A FRESH samples for local courier delivery

- Place the muscle biopsy on saline-moistened telfa-pad (moistened, not soaked) **do not** allow the specimen to float in saline.
- Placed the wrapped sample in the properly labeled plastic container and place the container in a biohazard bag.
- Place all required paperwork (requisition, pt. history, and insurance) in the outside portion of the bag.

Specimens that can be transported to Vanderbilt Neuropathology Monday- Friday by 3:30PM:

- Please contact our courier service at 615-936-0510, x2. Tell the courier that the sample is going to **Vanderbilt NEUROPATHOLOGY.**

Method 1B FRESH samples for FedEx- overnight transport with cold pack or wet ice

- Place the muscle biopsy on saline-moistened telfa-pad (moistened, not soaked) **do not** allow the specimen to float in saline.
- Placed the wrapped sample in the properly labeled plastic container and place the container in a biohazard bag.
- Place 2 pre-frozen ice packs or a large bag with wet ice in the Styrofoam box with the sample. Close the Styrofoam box. Note: with wet ice it helps to add a few paper towels to absorb excess moisture.
- Place all required paperwork (requisition, pt. history, and insurance) in a clear bag and place on top of the Styrofoam box, inside the cardboard box, and seal with packing tape.

Shipping: Mark FedEx FIRST Overnight
Use provided label or address above

Method 2 FRESH & FIXED specimens for overnight FedEx transport, if the sending facility has the following:

- Liquid nitrogen
- Unscented talcum powder
- OCT freezing media
- Plastic disposable molds, cork or non-corrugated cardboard
- 10% NB Formalin
- 2% Glutaraldehyde

The sample should be divided into **3 portions. (Tools used cannot be contaminated with fixative since this interferes with staining)**

NOTE: If a sample is needed for metabolic or mitochondrial studies, an additional piece must be frozen separately without talc and without OCT.

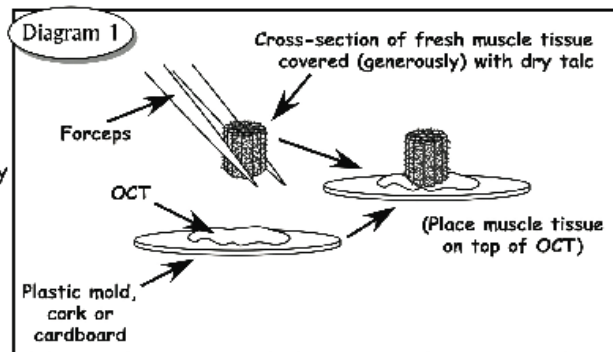
Part 1

- Approximately 2/3 of the sample is to be frozen with OCT. Cover this sample with talcum powder keeping it oriented. Wait approximately 1-2 mins (longer if it was in saline) and then place the sample in the mold, orienting it so that the cross-section is facing up (Do not remove excess talcum powder). (*See diagram 1*).
**VPLS can provide talcum powder. Omitting the talcum powder can cause ice artifact that can hinder diagnosis.
- With long forceps, submerge the specimen into liquid nitrogen. (*See diagram 2*). Keep it submerged for 10-15 seconds.
- Place the specimen in a small properly labeled vial and place the vial on dry ice or at -80°C until ready to ship.

Do not allow the specimen to thaw.

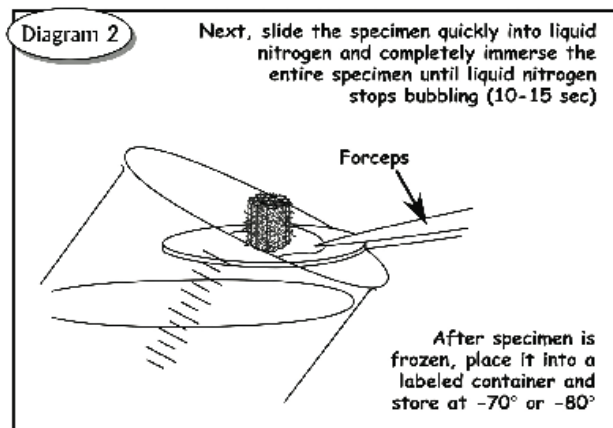
NOTES:

1. When covering specimen with dry talc, cover generously and do not shake off excess talc before placing into the OCT.



2. Immerse specimen quickly for freezing. After freezing, do not allow specimen to thaw.

Store the specimen immediately at -80°C or ship immediately in dry ice.



Revised 2010-July28

Part 2

A smaller piece measuring approximately 0.5 cm x 0.5 cm should be placed in a properly labeled container of 10% NBF.

Part 3

Place a **very small** piece measuring approximately 0.1 cm x 0.1 cm and place in a properly labeled container of 2% glutaraldehyde.

Part 4 (when metabolic or mitochondrial studies are required)

A 4th piece measuring at least 0.5 cm x 0.5 cm should be placed in a small properly labeled container and snap frozen.

Shipping:

- **Frozen Samples:** Place the frozen sample(s) in a Styrofoam box filled with approximately 4 lbs. of dry ice and close the box.
- Place lid on the Styrofoam box and place into a cardboard box.
- Place all required paperwork (requisition, pt. history, and insurance) in a clear bag and place on top of the Styrofoam box, inside the cardboard box, and seal with packing tape.
- For shipments with dry ice, federal regulations dictate that the following be visible on the outside of the container:
ORM-A-UN1845 DRY ICE FOR MEDICAL USE
- **Fixed Samples:** Formalin and glutaraldehyde-fixed samples are to be shipped in a separate package from the frozen sample so they do not freeze.

Mark FedEx FIRST Overnight on each package
Use provided label or address above

Nerve Biopsies

At least a 2-centimeter length of peripheral nerve (usually sural nerve) should be sent.

Method 1 Fixed samples

- Lay the nerve out straight on a wooden tongue depressor or other similar item. There is no need to attach the nerve since a fresh nerve will stick to the wood.
- Place in a properly labeled container of 4% glutaraldehyde (*NOTE: if 4% glutaraldehyde is not available 2% is acceptable*) and place in a biohazard bag.
- Place all required paperwork (requisition, pt. history, and insurance) in the outside portion of the bag.

Method 2 Fresh samples

- The nerve should be placed in a saline-moistened (not soaked or watery-wet) telfa-pad and placed in a properly labeled container. The container should be then be placed in a biohazard bag.
- Place 2 pre-frozen ice packs or a large bag with wet ice in the Styrofoam box with the sample. Close the Styrofoam box. Note: with wet ice it helps to add a few paper towels to absorb excess moisture.
- Place all required paperwork (requisition, pt. history, and insurance) in a clear bag and place on top of the Styrofoam box, inside the cardboard box, and seal with packing tape.

Shipping:

A. Specimens that can be transported to Vanderbilt Neuropathology Monday- Friday by 3:30PM:

- Please contact our courier service at 615-936-0510, x2. Tell the courier that the sample is going to **Vanderbilt NEUROPATHOLOGY**.

B. FedEx FIRST Overnight

- Place samples in an appropriate shipping bag/box and use provided label or address on page one.