

## Department of Pathology and Translational Pathobiology

# Muscle Biopsy Specimen Collection

This protocol describes how to harvest and submit a muscle biopsy for evaluation in the Neuromuscular Laboratory at LSU Health – Shreveport.

### Specimen Collection

Muscle kits are available from the Outreach Coordinator at LSU Health – Shreveport. 318-675-8475

1. The requisition form should include:
  - Name, address and phone number of the referring pathologist
  - Name and phone of the primary doctor (Neurologist, Rheumatologist, other). Please provide the phone number for the physician who requested the biopsy and will be treating the patient so that we may call with results.
  - Patient name and date of birth
  - Clinical history and laboratory, electrophysiologic and radiographic data (**Patient History and Physical**)
  - Site of the target muscle
  - Names and contact information of individuals who should receive copies of the pathology report
  - Billing information: referring pathology department or insurance carrier/patient
  - **Required clinical Information:**
    - 1) **Lab Values** (CPK, Serology, Antibodies)
    - 2) **Neurology Initial Evaluation (if unavailable, send Rheumatology Evaluation)**
    - 3) EMG and Nerve conduction studies report/results
    - 4) Medication list
    - 5) MRI/imaging reports
    - 6) You may send a copy of the complete patient record if you are not sure what to send
    - 7) PLEASE NOTE that failure to provide this information could delay the biopsy interpretation
2. Harvest a **2-3 cm in length x 1 cm in diameter** along the longitudinal fiber axis segment of the tissue from the **belly** of the target muscle but not end-stage. Avoid areas of myotendinous insertion. Choose a muscle that has not been recently subjected to EMG/NCS or other invasive procedures. Multiple small fragments are not acceptable as they are extremely difficult to orient correctly and introduce handling/cutting/crush artifact.
  - The muscle may be harvested with sutures.
  - Handle the muscle gently and avoid overstretching.
  - Avoid injecting the target muscle with anesthetic.
  - Avoid electrocautery in the region of the target muscle.
3. Wrap the muscle in a wrung saline-moistened/wet gauze. Place it in the specimen container and tightly close the lid. **Ensure the tissue is not submersed in saline.** Place the specimen container in the styrofoam box on wet ice. **Fill container with wet ice. Do not freeze the tissue. Do not place the muscle tissue directly on wet ice. The gauze/pad must NOT be soaking wet: wring out fully before letting it touch the tissue, and NEVER immerse fresh muscle in liquid of any kind: we may be unable to make a diagnosis because of swelling artifact. Do not let the tissue dry or enzyme activity will be lost.**

Department of Pathology and Translational Pathobiology

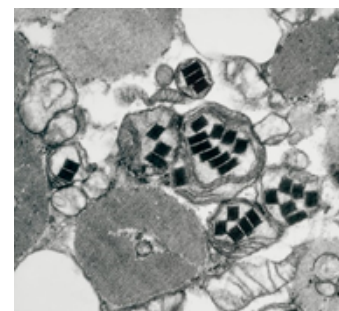
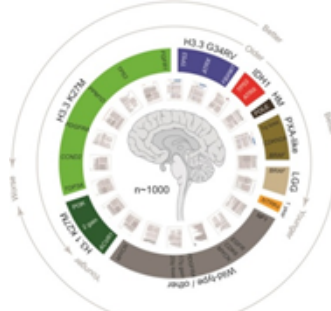
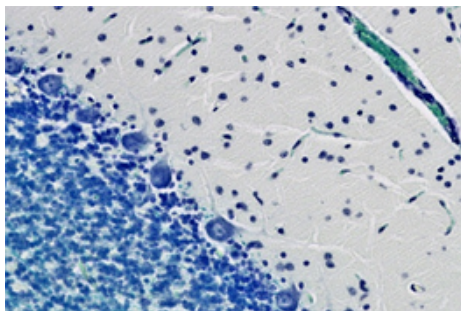
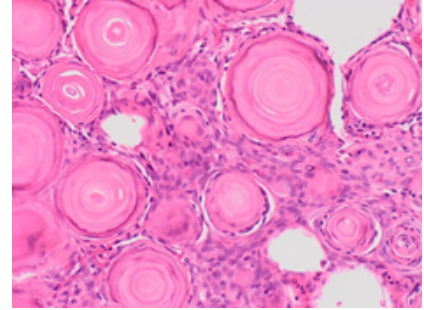
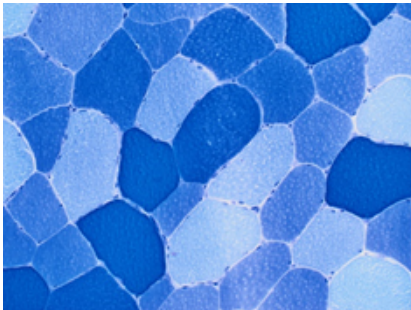
## Muscle Biopsy Specimen Collection Continued

Ship the muscle to the Neuromuscular Laboratory at LSU Health – Shreveport via courier or FedEx for overnight delivery. Preprinted FedEx airbills are provided. The specimen must be overnighted to LSU to ensure viability of fresh tissue. \*\*\*Biopsies should not be scheduled on Friday or before holidays.\*\*\*

Shipping Address Pathology  
Outreach Services Attn: Clinical  
Lab, Room E2-2 1541 Kings Hwy  
Shreveport, LA 71103

**Important:**

- Procedures scheduled for Friday or before holidays for delivery on Saturday or federal holidays are strongly discouraged.
- Include patient history and physical.
- Include neurologist's name and contact information.



## Department of Pathology and Translational Pathobiology

# Nerve Biopsy Specimen Collection

This protocol describes how to harvest and submit a nerve biopsy for evaluation in the Neuromuscular Laboratory at LSU Health – Shreveport.

### Specimen Collection

Nerve kits are available from Patient/Client Services at LSU Health – Shreveport. 313-675-5976/318-675-5918

1. The requisition form should include:

- Name, address and phone number of the referring neurologist
- Patient name and date of birth
- Clinical history and laboratory, electrophysiologic and radiographic data (Patient History and Physical)
- Site of the target nerve
- Names and contact information of individuals who should receive copies of the pathology report
- Billing information: referring pathology department or insurance carrier/patient

2. Recommendations for Harvesting the Biopsy:

- At surgery the nerve is to be exposed gently.
- If a local anesthetic is used, avoid injecting the nerve itself and do not manipulate the segment to be submitted.
- Avoid electrocautery in the region of the nerve.
- An optimal specimen should be at least 3 cm long.
- Place the biopsied nerve segment on a cut index card small enough to fit into the provided container of glutaraldehyde.
- Immediately immerse the index card in the buffered 3% glutaraldehyde.
- The specimen in glutaraldehyde may be stored and shipped at 39°F/4° C or at room temperature (if submitting both a muscle and a nerve, follow muscle temperature instructions).

3. Ship the nerve to the Neuromuscular Laboratory at LSU Health – Shreveport via courier, FedEx or UPS for overnight delivery. Preprinted FedEx airbills are provided.

**Shipping Address** Pathology  
Outreach Services Attn: Clinical  
Lab, Room E2-2 1541 Kings Hwy  
Shreveport, LA 71103

### Important:

- Include patient history and physical.
- Include neurologist's name and contact information.