



DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

University of Kentucky Chandler Medical Center

DIVISION OF NEUROPATHOLOGY

PROCEDURE FOR PERIPHERAL NERVE BIOPSIES

1. Biopsies of peripheral nerve should be forwarded to the Histology Laboratory, room HL409. Call Histology Laboratory at (859) 257-1822, the Neuropathology Lab at (859) 259-1937, Dr. Daron Davis, Dr. Dianne Wilson, or Dr. William Markesbery, or the main Pathology Departmental Office at (859) 323-5425.
2. A test requisition must accompany the tissue and should include the patient's date of birth, sex, social security number, a brief clinical history, the clinical problem for which the biopsy is being performed, duration of the condition, and any pertinent intercurrent acute or chronic diseases (e.g., diabetes).
3. The surgeon is asked to provide two segments of peripheral nerve to the laboratory.
 - a. Suitable length of peripheral nerve (between 1.5 and 2.5 cm) should be submitted in 10% neutral buffered formalin.
 - b. A small segment of peripheral nerve (approximately 0.2 to 0.3 cm) should be immersed immediately in 3% glutaraldehyde for electron microscopy.
4. Specimens are to be shipped to the Histology Laboratory. Contact the laboratory for packing and shipping arrangements. Please notify the lab if the biopsy is canceled.

Histology Laboratory: University of Kentucky Medical Center
800 Rose Street, Room HL409
Lexington, KY 40536
(859) 257-1822



DIVISION OF NEUROPATHOLOGY

PROCEDURE FOR SKELETAL MUSCLE BIOPSIES

1. Schedule muscle biopsies 24 hours in advance.
Call Histology Laboratory at (859) 257-1822, the Neuropathology Lab at (859) 259-1937, Dr. Daron Davis, Dr. Dianne Wilson, or Dr. William Markesbery, or the main Pathology Departmental Office at (859) 323-5425.
2. The specimen should be received before 1:00 p.m. to allow for same-day processing (for optimal results).
3. A test requisition must accompany the tissue and should include the patient's date of birth, sex, social security number, a brief clinical history, the clinical problem for which the biopsy is being performed, duration of the condition, and any pertinent intercurrent acute or chronic diseases (e.g., diabetes).
4. The surgeon is asked to divide the specimen into three portions.
 - a. 1.5 cm in length; 0.5 cm in diameter. Prior to excision secure each end to a splint (a wooden throat swab or tongue blade is satisfactory) to prevent contraction artifact in the muscle fiber. Submit in a Petri dish on saline- soaked gauze sponge.
DO NOT FREEZE SPECIMEN. Ship specimen with a cold pack (4C).
 - b. 1.5 cm in length; 0.5 cm in diameter. Prior to excision secure each end to a splint to prevent contraction artifact in the muscle fiber. Submit in 10% neutral buffered formalin.
 - c. A tiny specimen (0.3cm x 0.3cm x 0.3cm) should be immersed immediately in 3% glutaraldehyde for electron microscopy.

NOTE: If a metabolic disorder is suspected clinically, it is highly advisable to submit a fourth piece of muscle (approximately 0.5g) for biochemical analysis. This piece must be snap-frozen at minus 70 C within 5 minutes of removal and must be held at that temperature. Ship frozen on dry ice.

If the patient is an infant or child, the quantity of muscle may be decreased. Please contact the laboratory to discuss the absolute minimal requirements prior to biopsy.

5. Specimens are to be shipped to the Histology Laboratory. Contact the laboratory for packing and shipping arrangements. Please notify the lab if the biopsy is canceled.

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