

DUKE UNIVERSITY MEDICAL CENTER AND HEALTH SYSTEM

**Department of Pathology
Box 3712
Durham, North Carolina 27710**

**DUHS Clinical Laboratories/Histology
4425 Ben Franklin Boulevard
Durham, NC 27704**

**Telephone no. (919) 684-3648
Fax no. (919) 684-5916**

NERVE BIOPSY PROTOCOL

At **surgery** the nerve is to be exposed gently, with care taken not to directly manipulate the segment to be submitted. The nerve segment to be biopsied is placed on a muscle biopsy clamp *in situ* under slight tension, clamped, and then removed, leaving an approximately 5-10 mm. tail on both ends outside the clamp. The clamped specimen is placed immediately in buffered 4% glutaraldehyde.

An additional unclamped nerve segment placed on saline soaked gauze should be obtained if immunofluorescent studies are required. Nerve specimens collected at Duke Hospital should be delivered promptly to Room 3544, . For shipping purposes, fresh specimens may be stored at room temperature in immunofixative (Zeus/Michel's - available through Wampol Labs, Division of Carter-Wallace, PO Box 1001, Cranbury, NJ 08512, tel. 1-800-257-9525, ext. 3; catalog #0102) after excess fat has been removed. Please direct questions to: Histochemistry Laboratory (919) 684-3648

The pathologist who receives the specimen should ensure that it has been properly clamped and placed in appropriate medium. Specimens in glutaraldehyde may be **stored** overnight at 4° C.

The specimen in glutaraldehyde **must** remain on the muscle clamp for at least 4 hours. At the end of 4 hours, the tissue may be unclamped.

However, even if the nerve is received in your lab in formalin, it may be submitted for most special studies. Call ahead before shipping.

The specimen(s) then may be **shipped** in glutaraldehyde or Michel's fixative to:

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Please include **clinical information, phone number, and FAX number.**

The Histochemistry Laboratory at Duke University Medical Center will cut cross sections of the clamped and glutaraldehyde-fixed nerve segment, post-fix in osmium, and then embed in epon. These are stained with toluidine blue for light microscopic examination. Selected sections may be processed for electron microscopy. The remaining specimen is used for teased nerve fiber preparation. Total preparation time is 3 to 4 days.

The **final report** will be transmitted by FAX to the consulting pathologist.

Questions should be directed to:

Dr. Roger E. McLendon (919) 684-6940