INSTRUCTIONS FOR SURGERY AND PATHOLOGY OF MUSCLE BIOPSIES

++PLEASE PLAN SURGERY TO AVOID WEEK END OR HOLIDAY SHIPPING++

Questions or concerns about collection: Call Dr. Buckley at any time at 415-317-5148 or email at anne.buckley@duke.edu

Obtain pieces of muscle from a clinically affected but not end-stage muscle group that has not been recently subjected to EMG/NCS or other invasive procedures. Quadriceps, biceps, and deltoids are the usual sites.



TISSUE TO BE SENT FRESH: UNCLAMPED, $\leq 1 \text{ cm}^3$

•FOR HISTOLOGY AND ENZYME HISTOCHEMISTRY

•Immediately wrap fresh muscle tissue in saline-dampened, not wet gauze. Do not place tissue directly on soaking wet gauze, wet ice, or immerse in liquid of any kind. Do not let the tissue dry out. Free liquid will cause swelling artifact and drying will cause a loss of enzyme activity.

•Send immediately to Pathology in the fresh state.



TISSUE TO BE SENT FROZEN: UNCLAMPED, UP TO 2 PIECES $\leq 1 \text{ cm}^3$

PEDIATRIC PATIENTS AND ADULTS WHO MAY HAVE A METABOLIC/MITOCHONDRIAL DISORDER, AND MAY REQUIRE MOLECULAR/BIOCHEMICAL ANALYSIS.

Immediately wrap fresh muscle tissue in saline-dampened, not wet gauze. Do not place tissue directly on soaking wet gauze, wet ice, or immerse in liquid of any kind. Do not let the tissue dry out.
Send immediately to Pathology to be rapidly frozen.



MUSCLE FOR GLUTARALDEHYDE FIXATION: CLAMPED, \approx 0.5 cm. thick

•FOR POSSIBLE ELECTRON MICROSCOPY

•Clamp muscle prior to resection to prevent retraction artifact. Wrap the muscle, still in the clamp, in saline-dampened, not wet gauze. Do not place muscle directly on soaking wet gauze, wet ice, or immerse in liquid of any kind.

•Send immediately to Pathology to be immersed in glutaraldehyde.

CALL PATHOLOGY IMMEDIATELY FOR PICK-UP AND PROCESSING!

Pathologists: Please refer to sheet for "handling and sending muscle biopsies" for instructions on correct preparation of each type of sample. Obtain detailed clinical information: a recent complete history and physical, medication list, lab values, EMG/NCS reports, brain/spine/muscle MRI reports, and any neurology or rheumatology clinic reports. Send a copy of the complete patient record if unsure. Provide a phone number for the treating physician, so we may call with results. Fill out the Duke patient information form included with this kit. (Name, DOB, SSN, home address and phone number, and whom and how to bill.) **The case cannot be signed out without this information.**