

## COLLECTION PROCEDURES FOR SURGICAL SPECIMENS

Most routine surgical specimens are submitted in 10% buffered formalin. However, certain specimen types have additional requirements or need to be fixed in a different solution or sent unfixed. Listed below are the requirements for several common specimen types and scenarios. As always, please call Client Services at 605-322-7212 or 1-800-658-5474 *before* the specimen is collected if you are unsure of the requirements.

SPECIMEN TYPE	FIXATION AND HANDLING GUIDELINES
Routine Tissue Specimens	Fix in 10% neutral buffered formalin in a sturdy, leak proof container labeled with the patient's name, DOB and specimen source.
Amputated Limbs	Send fresh, no fixative. Double bag in an orange or red biohazard bag and properly label with the patient's name, DOB and specimen source. Place in a properly labeled box for transportation. Keep the specimen in the refrigerator until the courier arrives. Send with the "Request to Retain/Dispose of Limb" form. Forms may be found in the Client Services section on this website.
Bone Marrow Biopsies	Fix core and/or clots in 10% neutral buffered formalin. Place each in a separate leak-proof container and label with the patient's name, DOB and specimen source. Specify site on the requisition (L or R iliac crest). Place containers in a biohazard bag. Send at least 8 slides made from the aspirate along with a peripheral blood smear. It is vitally important that the slides are placed in a separate biohazard bag. Fumes from the formalin adversely affect staining and cell preservation. Send or fax the CBC results. The CBC must be performed less than 24 hours before the bone marrow. See the bone marrow requirements section of this referral guide for special collection instructions for flow cytometry or cytogenetic studies.





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Direct Immunofluorescence Biopsies (DIF)	Before scheduling the procedure call Physicians Laboratory Client Services at 1-605-322-7212 to request a DIF kit. Place the specimen directly into the vial marked "lesional" if affected tissue and "normal" if there is some normal tissue biopsied for comparison. Fill out the DIF requisition with the following information: Patient name, referring physician, biopsy site, clinical information and patient's insurance information. A Physicians Laboratory requisition should also accompany the specimen with the same information.
Expedited Cases, including Frozen Section and ASAP Specimens	Frozen sections must be scheduled in advance by calling Physicians Laboratory Client Services at 322-7212. The requisition must have a contact number for the pathologist to call when he/she is finished examining the specimen.  Call Client Services when a specimen needs to be examined as soon as possible, regardless of whether it is fresh or fixed. Mark on the requisition "Results needed ASAP" and note the date/time of surgery if applicable. Be sure there is a contact number for the attending physician/surgeon. Also mark on the outside of the biohazard bag that the specimen needs to be expedited. The pathologist will inform the provider by phone when he/she has a diagnosis.
Fetus/POCs/Missed Abs/Miscarriages And Fetal Chromosomal Analysis	Please refer to the Products of Conception document located under the Collection Instructions section for proper specimen submission. If cytogenetics is desired, please refer to the Fetal Chromosomal Analysis document in the same section.
Gout	Specimens for the examination of gout must be received fresh. Specimens received in formalin cannot be used as the crystals are soluble in aqueous fixatives. If a long delay before the specimen pickup is anticipated it may be placed in 100% alcohol. Mark the time the specimen was placed in alcohol on the container and the requisition.



SPECIMEN TYPE	FIXATION AND HANDLING GUIDELINES
Lymph Nodes for Routine Processing (NO cultures, frozen section, immediate gross exam, flow cytometry desired)	Fix in 10% neutral buffered formalin
Lymph Node Protocol	If your facility is located in Sioux Falls or Spencer, IA call PL Client Services at 605-322-7212 (SF) or 1-800-584-7076 (Spencer) for immediate pickup. Place the specimen in a sterile container and do NOT add formalin. Specify what testing needs to be performed, e.g. cultures and/or flow cytometry. Cultures must be ordered on a laboratory requisition or in Expanse. If your facility is NOT local, specify testing as noted above. If cultures are desired divide the specimen and send that portion to your micro department to be plated to media. If that is not possible call Avera McKennan Regional Lab at 605-322-7100 for further instructions. If flow cytometry is desired place a portion in RPMI transport media. Place any remaining specimen in 10% formalin. The flow and formalin-fixed specimens should be sent together to PL.  For flow cytometry collection instructions see the Lymph Nodes for Flow Cytometry document under the Collection Instructions section for specific details regarding specimen collection.
Lymph Nodes for Flow Cytometry	Local Clients: Call PL Client Services at 322-7212 for immediate pickup. Keep specimen fresh and note on the requisition specimen is for flow. PL of NWIA clients call 1-800-584-7076.  Out-of-town Clients: Place specimen in RPMI transport media provided by PL. Take care to check the expiration date and replace when necessary.  Please refer to the Lymph Nodes for Flow Cytometry document under the Collection Instructions section for specific biopsy collection details.





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Muscle Biopsy	Muscle biopsies must be scheduled in advance by calling Physicians Laboratory Client Services at 322-7212. The biopsy should measure 2x1x1cm and be wrapped in slightly moistened saline gauze, being careful not to crush the specimen. It is preferred that the specimen be submitted in a muscle clamp or it can be fastened and stretched on a tongue depressor. Preferred biopsy sites include quadriceps, femoris, gastrocnemius, biceps brachii, triceps brachii and the deltoid. If dermatomyositis is suspected, a specimen of the overlying skin should also be submitted. Specimen must be delivered to the lab ASAP. Call Physicians Laboratory Client Services at 322-7212 when specimen is ready for pickup.
Placenta	Fix in 10% neutral buffered formalin making sure that the placenta lays flat (shiny side up) in the container. Place enough formalin in the container to cover the placenta. Seal container and send to the laboratory. Always keep the placenta flat. Submit along with the patient's history form and requisition. History forms can be found in the Client Services section on our website.
Sural Nerve Biopsy	Sural nerve biopsies must be scheduled in advance by calling Physicians Laboratory Client Services at 322-7212. Submit a 1-2cm biopsy in saline-moistened gauze and call Client Services for immediate pick up.
Tissue for Electron Microscopy	Place specimen on saline-moistened gauze or in glutaraldehyde solution. Tissue samples should be approximately 1mm cubes. Several fragments can be placed in a single container. Call Physicians Laboratory Client Services at 1-605-322-7212 for pick up

