



Digestive Health Center

PERCUTANEOUS LIVER BIOPSY INSTRUCTIONS

Appointment Date: _____ Arrival Time: _____ Procedure Time: _____ Physician: _____

**Plan to spend 3 – 4 hours in the GI Lab

Location 259 E Erie St, **Lavin** Pavilion,
16th floor, Chicago, IL

Insurance Codes:

Diagnosis Code (ICD 10): _____

Procedure Code (ICD 10): 47001

Welcome

Northwestern Medicine Memorial Hospital strives for your experience with Endoscopy Services and the hospital to be excellent. Your safety and comfort are our primary concern and we want your stay to be an exceptional experience.

Appointment Information

You will receive an arrival time for your procedure. Please be aware that your procedure may be delayed due to unforeseen circumstances.

Please keep your original appointment. If you need to re-schedule your procedure, you MUST give at least a 7-day notice.

For scheduling related matters, please call: 312.695.4837

For clinical concerns/questions, please call: 312.695.4837

Transportation and Parking

Due to the lingering effects of the sedation, you **MUST** have a trusted and capable adult accompany you home at the time of discharge. You cannot take a Taxi, Uber or public transportation by yourself. Your procedure will be cancelled if you do not have an escort arranged.

If you are receiving sedation, you will NOT be able to return to work after the procedure.

Parking for the Lavin location is available within the Lavin building located at 259 E. Erie Street, which is accessible from both Erie and Ontario streets. Bring your parking ticket to the GI lab for validation to receive a discount on your parking deck fee. Valet parking is available.

Parking for the Galter Pavilion is located at 222 E. Huron Street. Use second floor bridge to access Galter Pavilion.

For more information on our parking garage locations, parking deck fees, and a map, please visit www.nm.org.

About your test

The liver is the largest solid organ in the body and lies within the upper right side of the abdomen. More than 500 vital functions have been identified with the liver. However, the main function of the liver is to regulate chemical levels in the blood and excrete a product called “bile” that helps carry away waste products from the liver. All the bloods leaving the stomach and intestines pass through the liver. The liver processes this blood and breaks down the nutrients and drugs into forms that are easier to use for the rest of the body.

Liver biopsy is a procedure where the physician removes a small piece of tissue from the liver to be examined for signs of damage and disease. For this procedure, a small incision is made on your right side near your rib cage and a special biopsy needle is inserted to retrieve the tissue from the liver. A physician usually decides to do a liver biopsy after other tests have suggested that the liver is not working properly. For example, a blood test may have shown that your blood contains a higher level of liver enzymes, or an X-ray could have suggested the liver is enlarged. A Liver biopsy may also be done:

- To diagnose several types of liver disease
- To determine the extent of liver damage, including diagnosis of cirrhosis
- By taking a small piece of liver tissues and looking at the tissue under a microscope, the Liver biopsy is the best way to determine whether the liver is healthy.

<u><i>Timeline</i></u>	<u><i>Procedure Preparation</i></u>
WITHIN 30 DAYS OF THE PROCEDURE	<ul style="list-style-type: none"> ➤ Complete the required blood tests. Your procedure will need to be re-scheduled if your labs were not drawn. <ul style="list-style-type: none"> ○ Complete Blood Count (CBC) ○ Prothrombin Time (PT/INR) ➤ If your blood tests were drawn at another hospital or lab other than Northwestern, please have the lab results faxed to our office at 312.695.0042.
14 DAYS BEFORE THE PROCEDURE	<ul style="list-style-type: none"> ➤ If you are taking a blood thinner (Coumadin, Plavix, Eliquis, aspirin, etc.), please contact your prescribing physician at least 2 weeks before your procedure to discuss how long to hold these medications. Your prescribing physician will tell you how many days prior to your procedure to stop/bridge your blood thinner.
7 DAYS BEFORE THE PROCEDURE	<ul style="list-style-type: none"> ➤ If you are taking a blood thinner (Coumadin, Plavix, Eliquis, aspirin, etc.), please begin following <u>your prescribing physician’s instructions</u> for discontinuing or bridging this medication prior to the procedure. ➤ Please stop taking all Non-Steroidal Anti-Inflammatory drugs (NSAIDs) at least 7 days prior to your procedure. These medications affect your clotting ability. ➤ If you are taking diabetic medication, please contact the prescribing physician to discuss dosage adjustments to avoid low blood sugar.
3 DAYS BEFORE THE PROCEDURE	<ul style="list-style-type: none"> ➤ Please contact your insurance company to verify coverage and if you will have any out-of-pocket costs, or precertification requirements. Please see the insurance/billing handout for more information on billing, coding, and potential out-of-pocket costs. ➤ Make transportation arrangements utilizing the transportation and parking section of this document. ➤ You may complete pre-procedure forms ahead of time by visiting:

<https://www.nm.org/conditions-and-care-areas/digestive-health>.

- Scroll to the bottom of the page and locate Related Resources. Select GI Lab Patient Questionnaire and Medication List.

THE DAY BEFORE THE PROCEDURE

- If you develop any moderate to severe cold symptoms (cough, sore throat, runny nose, etc.), a fever, new cut or wounds, or experience any other changes in your health before your procedure, please contact your physician’s office.

Diet Instructions:

If you are receiving sedation, please follow the following guidelines regarding what you may eat or drink prior to your procedure. Failure to follow the instructions you are provided may cause your procedure to be delayed or cancelled.

- Do not eat anything including gum, mints, tobacco, cough drops, or smoke any substance (i.e. tobacco, vape, marijuana) after midnight unless otherwise instructed by your physician.
- After midnight, you may have plain water, black coffee/tea (no milk or creamer may be added, however, sugar and artificial sweeteners are permitted), apple juice, or Gatorade up to 2 hours prior to your scheduled arrival time. All other beverages/drinks are to be avoided after midnight.

You may have additional or extended NPO guidelines based on your personal risk factors that will be discussed with your physician and/or nurse. Please follow the instructions that your physician/nurse gave you.

If you are **not** having sedation, please discuss any dietary restrictions with your nurse or physician.

THE DAY OF YOUR PROCEDURE

- If you are having sedation, you may take your morning medications up until 2 hours before your scheduled arrival time.
- If you are not having sedation, you may take your morning medications.
- On the day of your procedure, please be available by phone. Occasionally, procedure times are adjusted if the previous cases have run longer or are finished early.
- Call your surgery center if you cannot arrive at your scheduled time at 312.926.2425.
- Bring a photo ID and insurance card.
- If you have an implanted cardiac defibrillator or pacemaker, bring your device card with you.
- If you use any inhalers or a CPAP machine, please bring these items with you to the procedure as they may be needed for the procedure.
- Wear loose-fitting, comfortable clothes.
- Avoid wearing make-up, jewelry, or contact lenses.
- If you wear contacts, please bring your glasses as your contacts may need to be removed for the procedure.
- For your privacy and safety, only one guest is allowed in the pre-operative and postoperative holding areas.

- Your personal items will be placed and remain under your procedure cart during the entire visit. We recommend bringing only essential items to the hospital and leaving any valuables at home or give them to a trusted family member or friend. The hospital is not responsible for lost or damaged personal belongings.

LIVER BIOPSY PREPARATION GUIDELINES

GENERAL

- **During your Liver Biopsy:**
 - Prior to the Liver biopsy, the physician will explain the details of what will happen during the procedure and answer any questions you may have. You will be asked to sign a procedure consent form for the liver biopsy.
 - Your nurse will ask you to lie on the hospital bed on your back with your right arm above your head. You may be given sedation medication through an IV (in a vein) to help keep you comfortable and relaxed during the procedure.
 - The physician will examine your right side to determine the correct spot for the biopsy needle to be inserted. At times, a portable ultrasound may be used to assist in determining the exact site for the biopsy.
 - After marking the area where the liver tissue will be removed, the physician will give you a local anesthetic injections to numb the area around the biopsy site. There will be slight stinging sensation when injecting the anesthetic.
 - For the biopsy, you will be asked to remain very still in order for your physician to insert the biopsy needle. A small incision will be made on your right side, and the physician will ask you to hold your breath for 5 to 10 seconds while they insert the biopsy needle. The hold is taken on end of exhalation to reduce the chance of injuring the lung or the liver when inserting the biopsy needle. The liver tissue is then removed quickly.
 - Most patients report a brief feeling of dull discomfort during the biopsy – but not a severe pain. Many patients experience discomfort in their right shoulder that may last up to 2 days.
- **After your Liver Biopsy:**
 - After the liver biopsy, pressure will be applied to stop any bleeding and a small bandage will be placed over the needle insertion site.
 - You will be monitored in the recovery area for a minimum of 2 hours until the effects of any sedative medications have worn off and you are at less risk for bleeding.
 - You will be asked to lie on your right side for the first hour to apply the weight of your body as pressure to the biopsy site.
 - Most patients will have some soreness at the biopsy site once the local anesthetic wears off. Some patients may experience some irritation to the diaphragm muscle, which lies over the liver, and may cause some mild discomfort in their right shoulder. The soreness usually subsides in a few hours or in a couple of days.

- Due to being at risk for bleeding, it is very important not to do any heavy lifting or strenuous exercise for 7 days after your biopsy.
- The small bandage over the liver biopsy site may be removed before taking a shower or bath. You should keep your biopsy site clean and dry.
- Continue not to take Non-Steroidal Anti-Inflammatory Drugs or Blood Thinners for 7 days after your Liver biopsy, unless otherwise instructed by your prescribing doctor.
- Your biopsy results can take up to 7 days to return. Your doctor or his/her team will contact you with the results within 7 days via MyChart or phone. If you do not hear anything after 7 days, please contact the office via MyChart or phone (312.695.4837) to follow-up on test results.

MEDICATIONS

- If you are taking a **blood thinner (Coumadin, Plavix, Eliquis, aspirin, etc.)**, please contact your prescribing physician at least 2 weeks before your procedure to discuss how long to hold these medications.
 - Do NOT wait until the day before your procedure to have this discussion, as some blood thinners need to be held several days prior to the procedure.
- Please stop taking all Non-Steroidal Anti-Inflammatory drugs (NSAIDs) at least 7 days prior to your procedure. These medications affect your clotting ability. Since Tylenol does not affect your blood clotting ability, it may be used in place of an NSAID.
 - **NSAIDs include:** Ibuprofen (Advil), aspirin (Bayer), Naproxen (Aleve), celecoxib (Celebrex), etodolac, indomethacin (Indocin), ketorolac, oxaprozin (Daypro), sulindac (Clinoril), fenoprofen (Nalfon), ketoprofen (Orudis), nabumentone, diclofenac (Voltaren), rofecoxib (Vioxx), and tolmetin (Tolectin).
 - **Please also avoid these supplements:** vitamin C, vitamin E, fish oil, and green tea.
- If you are taking **diabetic medication**, please contact the prescribing physician to discuss dosage adjustments to avoid low blood sugar.
- If you have having sedation, you may take your other normal medications up until 2 hours prior to arrival time.

CONTACT INFORMATION

Please review this document and the FAQ section before calling our office with questions as your question may be answered from within this document.

Clinic	312.695.5620
Procedure Scheduling	312.926.0628
Pre-Certification	312.926.4645
Billing	844.669.2455
Financial counseling/price estimates	312.926.6906
Hospital	312.926.9000
Medical Records	312.926.3376
Digestive Health Fax	312.695.7095
	dhc.nm.org

FREQUENTLY ASKED QUESTIONS

Will the procedure be performed under anesthesia?

- Unless your doctor or nurse tells you otherwise, your procedure may be performed under moderate sedation or you may receive a local anesthetic. If you are receiving moderate sedation, a peripheral IV will be inserted and two medications will be administered (Versed and Fentanyl); these will make you very sleepy/drowsy during the procedure which is why you need to have a capable adult accompany you home.

What if I have removable dental work?

- Please remove any loose dental work prior to the procedure

Will I have discomfort after the procedure?

- Most patients will have some soreness at the biopsy site when the local anesthetic wears off. Some patients may experience irritation of the diaphragm muscle, which lies over the liver, and may also cause some mild discomfort in their right shoulder. The soreness usually subsides in a few hours or in a couple of days. For any severe or intolerable symptoms, please contact our office or go the emergency room.

What if I have a cold?

- If you have a mild cold with no fever, it is okay to take Tylenol and other over the counter cold medications and proceed with the preparation and the procedure. However, if you have a fever or more severe symptoms, it may be safer to call and reschedule the procedure. Please call the office to further discuss.

Which medications should I take on the day of the procedure?

- See Medication section in the beginning of this document for information regarding diabetic and blood thinner medications. All other medications can be taken up until 2 hours prior to your arrival time, or after the procedure.

Pregnant or breast feeding

- Please let us know if you are or could be pregnant because, except in very rare cases, a liver biopsy should not be performed.
- If you are breastfeeding, you may resume breastfeeding once you are awake, stable, and alert after your procedure unless otherwise instructed by your physician.

Pre-procedural Antibiotics

- Antibiotics are rarely needed prior to a liver biopsy. If you are a patient with kidney failure who receives peritoneal dialysis, please notify us ahead of time by calling our office at least 3 days prior to your procedure. IV antibiotics will be given prior to the procedure. If any of your other doctors feels it is necessary for you to receive antibiotics for another reason, he/she can give you a prescription for them.

What can I expect in terms of recovery?

- The sedation medication used during your procedure will help you feel relaxed and calm. There is a possibility you may remember parts of your procedure, but many do not. After your procedure, you may feel weak, tired, or unsteady on your feet. You may also have trouble concentrating or short-term memory loss, but these symptoms should go away in 12-24 hours. For these reasons, do not drive, make important decisions, drink alcohol, operate machinery, or return to work for the rest of the day. We strongly recommend that you go home and rest. You may return to normal activity the following day unless instructed otherwise by your physician.