

## What is a Liver Biopsy?

A liver biopsy is a procedure where a specially trained doctor (typically a hepatologist, radiologist, or gastroenterologist) uses a special needle to get a small sample of your liver tissue to examine under a microscope. This liver tissue allows the doctor to see if your liver is healthy or to better understand what the reasons are if you have liver damage or disease. The biopsy tissue will also help your practitioner determine the severity of liver disease (or stage).

Using the results from the liver biopsy, your doctor will assess:

- The degree of liver inflammation or damage (grade)
- The extent of scar tissue or fibrosis (stage)
- Presence and extent of fatty liver or other metabolic liver diseases
- The cause of abnormal liver tests if not already known
- Occasionally, a guided biopsy is performed of a liver mass or “spot” to see if you have cancer

## How is a Liver Biopsy Performed?

There are two main ways to perform a liver biopsy. Your doctor will discuss with you which kind of biopsy is best for you.

- The most common way uses a special needle to remove the tissue through a very small incision in the skin along the right chest wall.
- Less often, the doctor performs a liver biopsy through a vein in your neck (transjugular approach) or may place the biopsy needle in another location in the abdomen to reach the liver (surgical approach).

## What are the Risks of a Liver Biopsy?

- Pain: 1 in 4 people have pain right after the procedure and it may last 5 to 20 min
- Pain: 1 in 100 has pain for 1-7 days after the procedure
- Pain: 1 in 1000 have long term liver or right upper abdominal pain after the procedure
- Bleeding: important bleeding that requires hospitalization and possibly blood transfusion is less than 1: 1,000 to 3,000 patients
- Bile leak: can occur, risk level not known
- Perforation of other organs such as colon, kidney or lung: since our biopsies are ultrasound guided the risk is far less than 1:1000
- Heart or lung problems from anesthesia: less than 1:3,000 risk
- Allergic reaction to lidocaine: less than 1:3,000
- Shock, surgery, interventional radiology to treat or stop bleeding or managing bile leak or organ perforation: less than 1:6,000
- Death: less than 1:12,000

## Before the Procedure

- **Do not eat anything for 6 hours or drink anything for 3 hours before your biopsy.** (You may only drink clear liquids such as apple juice, Gatorade, ginger ale, or water for up to 3 hours before your procedure.)
- Your doctor may give you additional instructions for this procedure. Please read them carefully.

**Medication Note:** Ask your doctor if and when you should stop taking your usual medications, including vitamins, over-the-counter medications, and herbal supplements.

- It is important to tell your doctor if you are taking any blood-thinning medications, such as Aspirin, Coumadin (Warfarin), Lovenox (Enoxaparin), or Plavix (Clopidogrel). Your doctor may tell you to stop taking these medications one week before your biopsy.
- If you are taking any pain medications, such as Motrin/Advil (Ibuprofen), your doctor may tell you to stop taking these medications one week before your biopsy.
- If you are diabetic, do not take your diabetes medications on the day of your procedure because you will not be eating (fasting).

## On the Day of the Procedure

- **Please arrive 2 hours before your scheduled procedure.**
- **Come to the hospital with a family member or support person who can drive you home.** You may not drive or take a cab home alone after this procedure.
- **Bring your insurance information and a list (or the bottles) of medications you are taking** including vitamins, over-the-counter medications, and herbal supplements.
- The doctor may do an ultrasound or CT scan before or during the procedure to find the best place to do the biopsy. This may be done by an ultrasound technologist in the radiology (X-ray) department **or** by your doctor right before the procedure. If it is done in radiology, the technician will give you a report with instructions for your doctor. Take this with you to the GI Lab for your procedure.
- **Signing the consent form:** The doctor explains the procedure to you and asks you to sign a consent form stating that you understand the procedure. This is a good time to ask questions and share any concerns you may have.
- You may request to be given oral or intravenous sedatives immediately before your procedure after meeting with the doctor. Please notify the scheduling staff and the nursing staff if you would prefer to be given the sedatives to allow for sufficient planning.
- Plan to stay for at least 2 hours and up to 4 hours after your biopsy.

## During the Procedure

- **The Registered Nurse (RN) places an intravenous line (IV) in your arm.** The IV allows the doctor/RN to give you medications for your comfort or to take any blood tests if needed.
- You are placed on monitors that measure your blood pressure, pulse, and oxygen level.
- The doctor will ask you to lie flat with your right arm above your head. Then your doctor may do an ultrasound to find the best place for the biopsy. The doctor cleans the area for the biopsy and injects a local anesthetic around the insertion site. He/she will instruct you on breathing during the biopsy and when to hold your breath.

## After Your Procedure

- **After the biopsy, you will have your blood pressure, pulse and oxygen levels checked often.** Your nurse will check the biopsy insertion site for any signs of bleeding.
- You will be allowed to drink fluids if your condition is stable. However, some patients may be asked not to eat or drink for 2 hours after the procedure.
- Your blood may be drawn after the procedure to make sure everything is normal and it is safe for you to go home.
- The biopsy insertion site will be covered by a Band-Aid® (adhesive bandage).
- The bandage can be removed after 48 hours at your home by you or a family member.
- You will receive detailed instructions about how to care for yourself at home from your doctor and the nursing staff. **Note: Do not take any Aspirin or pain medication (specifically any non-steroidal anti-inflammatory such as ibuprofen or naproxen) unless otherwise told by your doctor.**
- When you are ready to go home, your nurse will review a copy of your home care instructions with you. These instructions will have any changes in medications and a phone number to contact your doctor.

**Call your doctor or go to the closest emergency room if you experience any of the following symptoms:**

- Increased pain in the stomach, shoulder, or chest
- Bleeding from the biopsy site
- Weakness, dizziness, or lightheadedness
- Shortness of breath
- Fever or shaking chills
- Vomiting blood or passing blood in your stools
- If you have a new symptom or problem and you can not reach your practitioner, go to the nearest ER to be evaluated.

## When Will I Get the Results of My Liver Biopsy?

The final results of your biopsy are usually available to your doctor within 5 days. Your doctor may ask you to return to the clinic to review the results in person or they may request you to call the office to review over the phone. Please ask your doctor for the plan to obtain your results.

## More Ways to Learn

- Visit the Society of Interventional Radiology Web site at [www.sirweb.org](http://www.sirweb.org).
- Visit [www.cpmc.org/liver](http://www.cpmc.org/liver).
- Go to [www.cpmc.org/learning](http://www.cpmc.org/learning).

### Frequently Asked Questions

**Question: What is a liver biopsy?**

**Answer:** A liver biopsy is a procedure where a specially trained doctor uses a special needle to get a sample of your liver tissue to examine under a microscope.

**Question: Is a liver biopsy procedure painful?**

**Answer:** During the liver biopsy procedure, the doctor injects a local anesthetic around the insertion site in your abdomen or neck for your comfort. There is some mild pain associated with this injection. You will be given additional medication in your IV to ensure that you are comfortable if you request this additional sedation. Approximately 20% of the time, abdominal or right chest or right shoulder pain will be experienced. This pain typically resolves in 2 hours or less. Occasionally, pain medications may be required for up to 1 week after this procedure. It is very rare that any pain will be present long-term after a liver biopsy. Rarely, severe pain is experienced which will require a hospital stay for infusion of pain medications.

## Frequently Asked Questions

**Question: What are the risks of a liver biopsy?**

**Answer:** The most common event is pain, as described above. Rarely, less than 1 in 2,000 people have bleeding after the liver biopsy that requires treatment with blood transfusion or surgery. The risk of organ perforation is extremely low and we describe the risk of death after this procedure as less than 1 in 13,000 people or patients. Bile leaks have also been described after liver biopsy but are so rare that a rate estimate is not possible.

**Question: When will I get the results of my liver biopsy?**

**Answer:** The final results of your biopsy are usually available to your doctor within 5 days. Your doctor may ask you to return to the clinic to review the results in person or they may request you to call the office to review over the phone. Please ask your doctor for the plan to obtain your results.

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Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).