

Transjugular Liver Biopsy

How to prepare and what to expect

This handout explains how to prepare for and what to expect when having a transjugular liver biopsy.

What is a liver biopsy?

During a liver biopsy, a small sample of tissue is taken from the liver. This tissue is studied and tested in the lab. This procedure is done by an *interventional radiologist*, a doctor or advanced practice provider who specializes in this type of procedure.

The sample of liver tissue can be taken either through the skin of the abdomen (*percutaneous*) or through a *jugular vein (transjugular)*. Jugular veins are large veins in the neck that carry blood from the head, brain, face, and neck back toward the heart.

Why do I need a liver biopsy?

You may need a liver biopsy for one of these reasons:

- Blood tests show that you may have chronic liver disease. A liver biopsy tells your doctors more about this disease and how much damage has been done to your liver.
- If you are a liver transplant patient, you will have many liver biopsies. The biopsy is one of your regular screening tests. It helps your doctors see if rejection is present. It can also help find the cause of abnormal liver tests.

Your doctor believes that it is safer to do a transjugular liver biopsy than to insert a needle directly into the skin of your abdomen (*percutaneous*). It may be that you have a problem with blood clotting or a large amount of fluid in your abdomen.

What happens during the procedure?

In a transjugular liver biopsy, a thin tube is inserted through a large vein in your neck and passed down into your liver (*hepatic*) vein.

During the procedure:

- *Ultrasound* is used to find your jugular vein. We then inject a *local anesthetic* (numbing medicine) at that place.
- Next, your doctor will insert a *catheter* (tube) into your jugular vein. X-rays will help your doctor guide the tube into the hepatic vein.
- A special device is then inserted through the catheter and into your liver. This device allows the doctor to take tissue samples. Your doctor will take 2 to 3 samples.



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Are there risks involved?

All medical procedures involve some risk. But less than 5% of patients (fewer than 5 out of 100 patients) have problems after a liver biopsy.

The main concern is bleeding into your abdomen. Most times, this bleeding is not life-threatening.

Your doctor will talk with you about your risks. Please ask any questions you have. Make sure all your questions are answered.

Sedation

Before your procedure, you will be given a *sedative* (medicine to make you relax) through an *intravenous line* (IV) in one of your arm veins. You will stay awake but feel sleepy. This is called *moderate sedation*. You will still feel sleepy for a while after the procedure.

For some people, using moderate sedation is not safe. If this is true for you, you will need *general anesthesia* (medicine to make you sleep during the procedure).

Let us know **right away** if you:

- Have needed anesthesia for basic procedures in the past
- Have sleep apnea or chronic breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of an opioid pain medicine
- Have severe heart, lung, or kidney disease
- Cannot lie flat for about 1 hour because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

If you have any of these health issues, we may need to give you different medicines. Instead of a sedative, you might receive:

- Only a *local anesthetic* (numbing medicine), such as lidocaine.
- A local anesthetic and a single pain or anxiety medicine. This is called *minimal sedation*.
- *General anesthesia* (medicine to make you sleep). This medicine is given by an anesthesia care provider.

Before Your Procedure

Before You Arrive

A nurse will call you within 5 days of your procedure. They will give you important instructions and answer any questions you have.

- If you do not understand English well enough to understand the instructions from the nurse or the details of the procedure, tell us right away. We will arrange for a hospital interpreter to help you. A family member or friend **cannot** interpret for you.

- Most patients need blood tests done before this procedure. We may be able to do your blood tests when you arrive for your procedure. We will tell you if we need a blood sample before that day.
- If you take any blood-thinning medicines (such as Coumadin, Lovenox, Fragmin, or Plavix), you may need to stop taking the medicine for 3 to 9 days before your procedure. Do NOT stop these medicines unless your doctor or nurse has told you to do so. We will give you instructions as needed.
- You must arrange for a responsible adult to drive you home after your procedure and stay with you the rest of the day. You **cannot** drive yourself home or take a bus, taxi, or shuttle.

The Day of Your Procedure

To prepare for sedation, follow these instructions exactly. Starting at midnight, the night before your procedure:

- Do not eat or drink anything.
- Do not take any of the medicines that you were told to stop before this procedure.
- If you must take medicines, take them with only a sip of water. Do not skip them unless your doctor or nurse tells you to.
- Do not take vitamins or other supplements. They can upset an empty stomach.

Bring with you to the hospital a list of all the medicines you take.

Please plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people who have unexpected and urgent health issues. Thank you for your patience if this occurs.

At the Hospital

A staff member will give you a hospital gown to put on and a bag to put your belongings in. You may use the restroom at that time.

A staff member will take you to a pre-procedure area. There, a nurse will do a pre-procedure assessment. A family member or friend can be with you in the pre-procedure area.

An IV line will be started. You will be given fluids and medicines through the IV.

An interventional radiology specialist will talk with you about the procedure, answer any questions you have, and ask you to sign a consent form, if you have not already done this.

After Your Procedure

You will be moved to a room on the short-stay unit on the hospital. Once you are settled into your room:

- Your family member or friend will be able to be with you.
- You will need to sit with the head of your bed elevated at 30 degrees for 2 to 4 hours to allow your puncture site to heal and to monitor for bleeding.
- You will be able to eat and drink.

Before you get up to walk, we will assess you to make sure you can walk safely. A staff member will help you get out of bed.

You will be able to go home the same day when:

- You can eat, drink, and use the restroom
- Your nausea and pain are under control
- Your vital signs are stable
- Your nausea and pain are under control

For 24 Hours

The medicine that you were given to make you sleepy will stay in your body for several hours. It could affect your judgment. You may also be lightheaded or feel dizzy.

- Do not drive a car.
- Do not use machinery or power tools.
- Do not drink alcohol.
- Do not take medicines such as tranquilizers or sleeping pills, unless your doctor prescribed them.
- Do not make important decisions or sign legal documents.
- Do not be responsible for children, pets, or an adult who needs care.

To help your recovery:

- Do only light activities and get plenty of rest.
- Keep the puncture site covered with the dressing. Make sure it stays clean and dry.
- A responsible adult should stay with you overnight.
- Eat as usual.
- Drink lots of fluids.
- Resume taking your usual medicines when you get home. Take **only** the medicines that your doctors prescribed or approved.

For 48 to 72 Hours

- Do not lift anything heavier than 5 to 10 pounds (a gallon of milk weighs almost 9 pounds)
- Do only gentle activities. This will allow your neck puncture site to heal.

When to Call

Call us right away if:

- Mild fever, pain, redness, swelling at the puncture site or dizziness
- Mild shortness of breath, chest tightness or chest pain
- Any other non-urgent questions or concerns

Call 911 or go to the nearest emergency department if you have:

- Severe bleeding or any bleeding that does not stop after you have applied gentle pressure for about 15 minutes
- Drainage from your incision
- Fever higher than 101°F (38.3°C) or chills
- Shortness of breath that is getting worse
- New chest pain
- Dizziness
- Vomiting
- Yellowing of your eyes or skin

Who to Call

University of Washington Medical Center and Northwest Hospital

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department:

- Montlake: 206.598.6209, option 2
- Northwest: 206.598.6209, option 3

Harborview Medical Center

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department at 206.744.2857.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC – Montlake:

206.598.6209, option 2

UWMC – Northwest:

206.598.6209, option 3

Harborview Medical Center:

206.744.2857

After hours and on weekends and holidays:

Call 206.598.6190 and ask to page the Interventional Radiology resident on call.