This handout explains what a transjugular liver biopsy is and what to expect when you have this procedure.

**Transjugular Liver Biopsy**

*About your procedure*

**What is a liver biopsy?**

In a liver biopsy, your doctor takes a small sample of tissue from your liver. This tissue is studied and tested in the lab.

**Why do I need a liver biopsy?**

- Your blood tests show that you may have chronic liver disease. A liver biopsy will tell your doctors more about this disease and how much damage has been done to your liver.

- If you are a transplant patient, a liver biopsy is one of your regular screening tests. The biopsy will help your doctors find the cause of abnormal liver tests or to see if rejection is present.

**How is a liver biopsy done?**

There are 2 types of liver biopsy: a *percutaneous* (through the skin) liver biopsy and a *transjugular* (through the jugular vein) liver biopsy.

**Percutaneous Liver Biopsy**

The most common way to get a sample of liver tissue is with a percutaneous liver biopsy. During this procedure:

- Your doctor inserts a small needle into your liver through the skin of your chest or abdomen.

- The needle removes a small “worm-like” segment of your liver tissue.

A percutaneous liver biopsy can cause problems for people who have bleeding problems. Because many people with liver disease have bleeding problems, your doctor is advising you to have a transjugular liver biopsy.
Transjugular Liver Biopsy

A transjugular liver biopsy is often advised for people who have a problem with blood clotting or a large amount of fluid in their abdomen. It is done by an *interventional radiologist*, a doctor who specializes in this type of procedure.

During transjugular liver biopsy:

- Your doctor will insert a small tube into your jugular (neck) vein.
- X-rays will help guide the tube into a large vein in your liver.
- A small needle is inserted through the tube and into your liver.
- The needle removes 2 or 3 small samples of tissue.

This X-ray picture shows a transjugular liver biopsy. The area outlined in gray is the liver. The dark line is the tube that was inserted through the jugular vein and guided into the large liver vein.

If there is bleeding during a transjugular liver biopsy, the blood most often goes directly into the vein, not outside of the bloodstream.

Are there risks involved?

All invasive medical procedures involve some risk. But, less than 5% of people (less than 5 out of 100) have problems after transjugular 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 make sure all of your questions and concerns are addressed.

Before Your Procedure

- If you are an outpatient, a nurse coordinator will call you the afternoon before your procedure. If your procedure is on a Monday, the nurse will call you the Friday before. The nurse will give you final instructions and answer any questions you have.
• If you do not understand English well enough to understand these instructions or the details of the procedure, tell us as soon as possible. We will arrange for a hospital interpreter to assist you. **A family member or friend may not interpret for you.**

• You most likely will need blood tests done within 14 days of your procedure. We may do this when you arrive for your procedure. We will tell you if we need a blood sample before that day.

• If you have a history of allergy or bad reaction to **contrast** (X-ray dye), please call our nurse coordinators at one of the phone numbers on the last page of this handout. You may need medicine for this allergy before the procedure.

• 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 the procedure. You will receive instructions about this.

• If you have diabetes and take insulin or metformin (Glucophage), you will receive instructions about holding or adjusting your dose for the day of your biopsy.

**Sedation**

• When you have your biopsy, you will be given a sedative medicine (similar to Valium and morphine) through your IV. This medicine will make you sleepy, help you relax, and lessen your discomfort. You will stay awake. This is called **conscious sedation**. You will still be sleepy for a while after the procedure.

• For some people, using conscious sedation is not safe. If this is true for you, you will need **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 narcotic painkiller
- 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)
Day Before Your Procedure

To prepare for sedation, follow these instructions closely:

- The day before your procedure, you may eat as usual.
- Starting 6 hours before your procedure, you may only have clear liquids (liquid you can see through, such as water, Sprite, cranberry juice, or weak tea).
- Starting 2 hours before your procedure:
  - Take nothing at all by mouth.
  - If you must take medicines, take them with only a sip of water.
  - Do not take vitamins or other supplements. They can upset an empty stomach.
- You must have a responsible adult drive you home and stay with you the rest of the day. You may NOT drive yourself home or take a bus, taxi, or shuttle.

On the Day of Your Procedure

- Take all of your other usual medicines on the day of the procedure. Do not skip them unless your doctor or nurse tells you to.
- Bring a list of all the medicines you take with you.
- 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 with unexpected and urgent problems. Thank you for your patience if this occurs.
- Unless told otherwise, check in at Admitting on the 3rd (main) floor of University of Washington Medical Center. Admitting is to the right and behind the Information Desk in the lobby.
- A medical assistant will give you a hospital gown to put on and a bag for your belongings. 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 health assessment. Your family or friend can be with you there.
- An IV line will be started. You will be given fluids and medicines through the IV.
- An interventional radiology doctor will talk with you about the procedure and ask you to sign a consent form if that has not already been done. You will be able to ask questions at that time.
Your Procedure

- The nurse will take you to the radiology suite. This nurse will be with you for the entire procedure.
- You will lie on a flat table that allows the doctor to see into your body with X-rays.
- Wires will be placed on your body to help us monitor your heart rate.
- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- A radiology technologist will clean your skin around your neck with a special soap. Tell this person if you have any allergies.
- The entire medical team will ask you to confirm your name and will tell you what we plan to do. This is for your safety.
- Then, your nurse will give you medicine to make you feel drowsy and relaxed before we begin.
- If needed, an interpreter will be in the room or will be able to talk with you and hear you through an intercom.
- A local anesthetic (numbing medicine) will be applied to the skin on your neck. The anesthetic burns for about 5 to 10 seconds. Then the area will be numb and you will not feel any sharp pain.
- The catheter is inserted into your jugular vein and guided to your liver veins. Contrast (X-ray dye) is then given into your blood vessel.
- When the catheter is in the correct spot, a special needle is threaded into the catheter and a liver sample is taken. It is normal to feel pressure in your neck and slight pain in your liver.
- About 2 or 3 tissue samples are taken and the catheter is removed.
- Pressure is held on your neck where the catheter was inserted for a few minutes to prevent bleeding.

After Your Procedure

- If you are an outpatient, you will then go to a short-stay unit in the hospital. A different nurse will monitor you there for about 4 hours. You will be able to eat and drink, and your family may visit you.
- When you are fully awake and are able to eat, use the restroom, and walk, you will be able to go home.
- Problems with this procedure are rare. If they occur, we may need to keep you in the hospital so that we can monitor or treat you.
- Before you leave the hospital, your nurse will tell you what activities you can do, how to take care of your incision, and other important instructions.
Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Radiology/Imaging Services: 206-598-6200

When You Get Home

- Relax at home for the rest of the day. Make sure you have a family member, friend, or caregiver to help you. You may feel sleepy or have some short-term memory loss.

- For 24 hours, do **not**:
  - Drive a car or use machinery
  - Drink alcohol
  - Make important personal decisions or sign legal documents
  - Be responsible for the care of another person

- You may shower or bathe the next day.

- There is only minor pain after a transjugular liver biopsy. If your doctor says it is OK for you to take acetaminophen (Tylenol), this should ease any discomfort you have. If your doctor expects you to have more severe pain, you will receive a prescription for a stronger pain medicine.

- Resume taking your usual medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.

When to Call

Call us **right away** if you have:

- Bleeding in your neck where the catheter was inserted
- Abdominal pain
- Dizziness

Who to Call

Interventional Radiology nurse coordinator ...................... 206-598-6897
Procedure Scheduling ...................................................... 206-598-6209

After hours (between 5 p.m. and 7 a.m.), and on weekends and holidays
Ask for the Interventional Radiology Fellow on call .......... 206-598-6190

**If You Have an Emergency**

Go directly to the nearest Emergency Room or call 9-1-1. Do not wait to contact one of our staff.