

# NIH Clinical Center Patient Education Materials

## Interventional Radiology: Transjugular Liver Biopsy

A transjugular liver biopsy using x-ray and ultrasound involves placing a special catheter into the internal jugular vein in your neck. This vein is connected to the veins in your liver, where the transjugular biopsy can be done. And, pressure in the main portal vein to the liver can be measured there. The results of this procedure will give your doctors information about your illness and help them plan your treatment. The procedure will be performed by an interventional radiologist, a doctor specially trained for this type of radiology procedure.

This procedure is minimally invasive, because your doctor will use a small, spaghetti-like tube called a catheter to do the biopsy. This procedure is not a type of surgery, and this type of biopsy reduces your risk of bleeding. However, even minimally invasive procedures may cause complications including bleeding, infection, or pain.

### Before the procedure

- No more than 30 days before the procedure, your doctor should perform a history and a physical (“H & P”) exam.
- Within 7 days of the procedure, you should have blood tests done that include a complete blood count (CBC), routine chemistry studies, and tests of how well your blood clots (“coags”).
- If you take aspirin, ibuprofen (Motrin/Advil), naproxen (Aleve), or blood-thinning medicines on a regular basis, then ask your physician when you should stop taking them.

### The day before the procedure

- Please do not eat anything after midnight.
- If you are not receiving general anesthesia, then you may drink a sip of clear liquid such as water, clear tea, or black coffee up to 2 hours before your procedure, in order to take your regular medications before your procedure.
- If you are allergic to I.V. contrast, then you may need to take some medications before the procedure. These medications will enable you to receive the I.V. contrast safely. Your doctor will probably ask you to take these medications several times during the day before the procedure, often starting 13 hours before the procedure.
- You may be asked to take these medications on one of these schedules:
  - Prednisone by mouth, 13 hours before the procedure
  - Prednisone by mouth, 7 hours before the procedure, and prednisone and Benadryl (diphenhydramine) by mouth 1 hour before the procedure

### Immediately before the procedure

When you arrive in Interventional Radiology, your radiologist and nurse will discuss the procedure with you and answer your questions. When you understand the procedure plan, you will be asked to sign a consent form that gives your care team permission to perform the procedure. You will then change into a hospital gown (if you do not already have one on).

Any procedure during which the skin is opened has a risk of infection or bleeding. To reduce these problems, your health care team will:

- Cleanse your skin with antiseptic soap
- Check your blood work to make sure that your blood clots well

**During the procedure**

- Your nurse and/or interventional radiology technologist applies monitors to measure your vital signs (heart rhythm, breathing, and blood pressure).
- Your nurse may start an intravenous (I.V.) line, if you do not already have one.
- The skin around the jugular vein on the right side of your neck will be cleansed and draped with sterile sheets. Do not touch the cleansed site or towels.
- You will receive local anesthesia (numbing medicine) where the catheter will be inserted. You may receive moderate sedation through your I.V. to help keep you comfortable and relaxed. Your nurse will monitor you throughout the procedure.
- The radiologist will inject I.V. contrast dye through a small catheter and will take pictures of your veins.
- The radiologist will place the catheter for the biopsy. A small tube with a fine biopsy needle in the end will be threaded through the catheter to a vein in your liver. The radiologist will use ultrasound and fluoroscopy to help see exactly where to place the catheter for the biopsy.
- Depending on how difficult it is to do the biopsy and measure liver vein pressures, the procedure will last 1 to 2 hours (or slightly more).

**After the procedure**

- The catheter will be removed.
- The radiologist will put pressure on the insertion site until the bleeding stops (usually about 5 minutes).
- A small bandage or dressing will be placed over the puncture site.
- You will be returned to your room where you will rest in bed with your head elevated for 2 to 4 hours.
- You may feel tenderness at the insertion site for the next 1 to 2 days.
- The dressing or bandage may be removed after 24 hours.
- Rest the day of the procedure, and limit your physical activity.

Note for patients with diabetes:

If you take a medication for diabetes made with metformin, you must stop this medication for 48 hours after the procedure and have a BUN/creatinine (blood work) to assess your kidney function before restarting this medicine. Your doctor will talk to you about the need to take other diabetes medications.

**The medications you received for your procedure included:**

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**Special instructions:**

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Follow the instructions given to you by your primary care team. If you have any routine questions or concerns, please contact your primary care team.

If you take aspirin, ibuprofen (Motrin/Advil), naproxen (Aleve), or blood-thinning medicines, ask your physician when you should begin taking them again.

Please call your primary care team if you have any of the following symptoms:

- Temperature or chills (38.5 °C or 101° F)
- Lightheadedness, dizziness, feeling faint
- Redness, swelling, or excessive bleeding or drainage at the puncture site
- Unrelieved or increasing pain at your neck site or in your abdomen

If you have any symptoms that you feel are significant or severe, and you cannot contact your NIH physician, call 911, or go to your nearest hospital emergency room. If possible, bring this sheet with you, and give it to the emergency room staff.

NIH Clinic/Physician:

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Telephone:

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National Institutes of Health Clinical Center  
Bethesda, MD 20892  
10/2015

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