

FACTS ABOUT: Liver biopsy

Your health care team made this handout to prepare you for a liver biopsy. If you have any questions after reading it, feel free to speak with your nurse or doctor.

What is a liver biopsy?

A liver biopsy is a minor medical procedure in which a doctor uses a needle to remove a small piece (biopsy) of your liver. This liver specimen is examined under a microscope to establish whether liver disease is present and how severe it is.

The liver biopsy helps your doctor plan your care. The procedure is done with local anesthesia in a hospital bed. A small section of the specimen is saved for future study.

What should I do before the liver biopsy?

Two weeks before your liver biopsy

- ▶ Tell your doctor immediately if you take aspirin or any anti-inflammatory medications, such as Indocin (indomethacin), Daypro (oxiprosyn), Aleve (naproxen), Motrin (ibuprofen), Advil (ibuprofen), or even Pepto Bismol. These medications contain salicylate, which is like aspirin. Salicylate can make you bleed easily and may increase the chance that you will bleed after the biopsy.

- ▶ Carefully read the ingredients section of your medication labels to look for aspirin (salicylic acid) or ibuprofen (Advil, Motrin). *Avoid these medications for 2 weeks before your liver biopsy.* If you need a pain reliever, you can take acetaminophen (Tylenol), or ask your NIH doctor to prescribe something safe for you to take.
- ▶ If you are take an anticoagulant or blood-thinner (for example, coumadin, heparin, Lovenox, Plavix) please contact your NIH doctor for specific instructions.
- ▶ Each time you come to the Clinical Center as an inpatient or as an outpatient, always bring a list of the your medications and the doses you take.
- ▶ If you smoke and cannot stop for 2 weeks before the biopsy, ask your doctor to order a nicotine patch for you.

The day before the biopsy:

- ▶ Arrive on the inpatient unit no later than 11 a.m. unless otherwise directed.
- ▶ You will have blood drawn, urine tests, chest x-ray, and an electrocardiogram (ECKG: heart-tracing).

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- ▶ An ultrasound of your abdomen and liver may take place the day before the biopsy or on the day of the biopsy.
 - ▶ Your NIH doctor will explain what you can expect during the liver biopsy and as well as its benefits and risks. You will have plenty of time to ask questions. If you agree to the procedure, the doctor will ask you to sign a consent form.
 - ▶ Starting at midnight the night before the procedure, you will need to fast. Fasting means that you should not eat or drink anything, including water.

What happens the day of the procedure?

The morning of your biopsy

- ▶ The nurse will awaken you to insert an intravenous catheter (I.V.) into your vein. An I.V. is a flexible plastic tube about the width of pencil lead and 1 inch long. It will be taped to your skin and will be used to give you medications or fluids during the procedure.

Please allow the nurse to start the I.V. when she asks so that your procedure can begin on time.
- ▶ Fasting blood samples will be drawn.
- ▶ You will be asked for a urine specimen. You will also start a 24-hour urine collection
- ▶ You will have an abdominal ultrasound in the x-ray department (if one was not already done).

- ▶ Before the biopsy starts, we will ask you to empty your bladder and change into hospital gown.
- ▶ You may be asked to provide a stool specimen.

What happens during the procedure?

- ▶ To help you relax, the doctor may order a medication that the nurse will inject into a muscle.
- ▶ You will then be asked to lie flat on your back without a pillow in your hospital bed, You should extend your right arm above your head.
- ▶ At the bedside, the doctor will do a portable ultrasound to find the exact location of your liver.
- ▶ You may then be given medication through your I.V. to relax you more, but you will stay awake during the procedure.
- ▶ With a special antiseptic, the doctor will clean the skin over your liver (upper right side of the abdomen). He or she will then use a small needle to inject a local anesthetic under the skin to numb this area.
- ▶ *Do not touch this clean area during the preparation.*
- ▶ You will be asked to take a regular breath in, let it all the way out (exhale), and then hold your breath for a few seconds. The doctor may have you practice this breathing before the biopsy. The biopsy is completed while you

hold your breath. The biopsy itself takes less than a second to perform.

- ▶ The doctor will get a sample of liver tissue by inserting a specially designed needle into the space between your ribs. He or she will rapidly move the needle in and out of the liver.
- ▶ A small dressing will be put over the biopsy site.

What happens after the biopsy?

Immediately after the biopsy

- ▶ You will be asked to turn onto your right side and stay in this position for 2 hours. This position puts pressure on the liver so that bleeding is less likely.
- ▶ We will monitor your blood pressure and pulse often.
- ▶ If you feel pain, nausea, dizziness, shortness of breath, or other discomforts, contact your nurse by pushing the nurse call button located on your bedrail.

Some people feel discomfort in their right shoulder “referred pain”). Mild pain medication such as acetaminophen (Tylenol), usually relieves this discomfort.

- ▶ After 2 hours, the nurse will help you onto your back with the head of your bed raised 10 degrees (one pillow).
- ▶ Stay on bedrest for 6 hours
- ▶ Do not eat or drink for 3 hours after the biopsy. After 3 hours, you can have clear liquids.

Six 6 hours after the biopsy

- ▶ The nurse will take a blood sample from your I.V. or vein to check for complications.
- ▶ You may eat a regular diet.
- ▶ You should stay on bed rest with bathroom privileges until morning.

The morning after the biopsy

- ▶ You may shower and remove the dressing.
- ▶ You may put a small bandage on the biopsy site after your shower.
- ▶ Your doctor will examine you before discharge

What to do at home after the liver biopsy

1. Rest and stay at home (“home rest”) after you are discharged from NIH. You may do limited activity.
2. Gradually return to normal activities. Lift nothing heavy (over 15 pounds) and do nothing strenuous for 4 days. After that, you may resume normal activities.
3. Shower or bathe as usual and change the bandage (if one was used) after showering. You do not need to cover the biopsy site after 24 hours.
4. Look at the biopsy site daily for 1 week. Notify your doctor if you notice:
 - ▶ increased redness
 - ▶ swelling

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- ▶ bloody or pus-like drainage
 - ▶ persistent shoulder, back, or abdominal pain
5. For pain or discomfort, take acetaminophen (regular strength Tylenol) as directed on the package. Do not take aspirin or non-steroidal anti-inflammatory drugs such as ibuprofen (Advil, Motrin) or naproxen (Aleve), for at least 7 days.

If you have other questions or concerns, call your doctor or nurse.

If you have severe pain or any sudden severe symptoms, call 911 for an ambulance and emergency care.

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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