

Ultrasound: Liver Transplant Exam

How to prepare and what to expect

This handout explains how to prepare for a liver transplant exam, how it works, how it is done, what you will feel during the exam, and how to get your results.

What is a liver transplant ultrasound?

Ultrasound exams use sound waves to take pictures of the inside of your body. An ultrasound of a liver transplant will study your transplanted liver. We will take images of your liver, the blood vessels to and from your liver, and your *biliary system* (bile ducts).

How does the exam work?

A *sonographer* (ultrasound technologist) will use a hand-held device that sends and receives sound waves. This device is called a *transducer*.

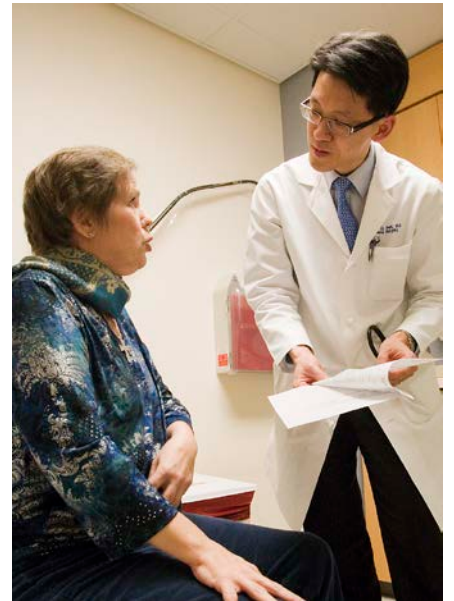
First, gel will be applied to your skin to help the transducer make contact. The sonographer will then press the transducer against your skin. As the sound waves bounce off your body's tissues, images are created. These images will appear on a monitor for your radiologist to see.

How should I prepare?

- Wear a loose-fitting, comfortable, 2-piece outfit. Only your abdomen needs to be exposed for this exam.
- If you are **not** having a liver biopsy, eat and drink as usual.
- If you are having a liver biopsy, see the section "Liver Biopsy" that starts on page 2.

What should I expect?

- The radiologist or physician assistant who does your biopsy will explain the procedure to you before it begins. They will describe how it is done and possible problems, and will give you instructions for self-care after your procedure.



Talk with your transplant team if you have any questions about your transplanted liver.

- Be sure to ask all the questions you may have. You will need to sign a consent form that says you understand what you talked about and that you agree to have this procedure done.

How is the exam done?

- You will lie on an exam table.
- The sonographer will move your clothing away from your abdomen.
- A warm gel will be applied to your abdomen.
- The sonographer will press the transducer against your skin and move it over your abdomen.
- The sonographer may ask you to hold your breath for 10 to 15 seconds as each image is created. This helps avoid blurry images.
- If needed, the radiologist may take more pictures after the sonographer is done.
- The exam usually lasts less than 45 minutes.

Who interprets the results and how do I get them?

The radiologist, who specializes in ultrasound, will review the images and send the report to your referring doctor. You will receive results from your doctor who ordered the test. Sometimes, the radiologist may talk with you about early findings when your exam is over.

Liver Biopsy

What if I am also having a liver biopsy?

During a liver biopsy, the radiologist will remove a small tissue sample from your liver and send it to the lab to be studied. If you are having a biopsy of your liver:

- Ultrasound will be used to find a safe area of liver to be biopsied.
- The biopsy will be done by a radiologist in the ultrasound department.
- You will then go to the 4-South unit of the hospital to recover for the next 4 hours.

What is an ultrasound-guided liver biopsy?

- A biopsy is the removal of a small piece of tissue from your body. A needle is the easiest way to remove this tissue safely. The tissue sample is then sent to the lab to be examined.

How should I prepare for the biopsy?

Fasting

- If you are having a liver biopsy, you must fast (have nothing to eat or drink) for at least 6 hours before your exam.

Medicines

- If you have diabetes and take insulin, talk with your doctor who manages your diabetes. You may need to adjust your insulin, since you will not be able to eat or drink anything for 6 hours before your exam.
- Take your other regular medicines as prescribed by your doctor, unless your doctor or the Radiology staff has told you otherwise.
- If you usually take aspirin or another *anticoagulant* (blood thinning) medicine, follow the instructions that the Imaging Services scheduling staff gave you. They have checked with our clinic doctors about whether you should stop taking this medicine before your biopsy.

Day of Your Biopsy

- Do not eat or drink anything for at least 6 hours before your exam.
- Make sure you bring someone to drive you home after your biopsy. You may not drive yourself home or take a bus or taxi.

At the Hospital

- We will ask you to change into a hospital gown before your exam. All of your belongings will stay with you during your visit.
- We may also ask you to remove jewelry or anything else that is in the area to be biopsied.
- Tell your radiologist or the sonographer if there is any chance you may be pregnant.

How is the ultrasound-guided biopsy done?

- First, the Radiology nurse will insert an *intravenous* (IV) line into a vein in your hand or arm. You may receive fluids or medicine through this IV to help you relax during your procedure. You may also be given a mild sedative through your IV before your biopsy. The nurse will monitor your vital signs during the entire procedure.
- The sonographer will help place you on the ultrasound table. Pillows may be used to help you hold the correct position during your exam.
- Ultrasound will be used to confirm the area to be biopsied and the safest way to reach this area.
- After the biopsy area is confirmed by the radiologist:
 - The needle insertion site will be marked on your skin.

- The skin around the insertion site will be scrubbed and disinfected, and a sterile drape will be put over it
- During the biopsy, you will need to hold fairly still.
 - Your doctor will use the ultrasound images to guide the biopsy needle to exactly the right place in your liver. The radiologist will insert a needle through your skin and into your liver.
 - An automated needle will be used to take the tissue sample. The sample will go directly to the lab to be tested.

After Your Biopsy: When to Call

Severe bleeding from a biopsy is rare. It occurs in less than 3% of patients (less than 3 out of 100 patients). Some signs of bleeding are:

- Pain and swelling where the biopsy was taken
- Rapid pulse (heart rate)
- Overall weakness
- Pale skin

If you have any of these symptoms, go to the nearest emergency room or call 911. Call your doctor as soon as you can after getting emergency treatment.

Who interprets the biopsy results and how do I get them?

The *pathologist* (doctor who specializes in looking at tissue samples) will send a detailed report to your doctor. It may take 3 to 5 days for your doctor to get the *pathology report* from your biopsy. This report tells what was found when the biopsy tissue was examined in the lab. Your referring doctor or nurse will talk with you about these results.

Questions?

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

UWMC Imaging Services:
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