

Ultrasound: Guided Biopsy

About your procedure

This handout explains an ultrasound-guided biopsy. Read this handout to learn more about the procedure, how to prepare for it, what to expect during and after your procedure, and how to get your results.

What is an ultrasound-guided biopsy?

An *ultrasound* exam uses sound waves to take pictures of your body's organs and tissues. 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.

To do a needle biopsy, the radiologist will insert a needle through your skin and into your tissue. You may have a biopsy of organ tissue, such as the liver or kidneys. Or, you may have a biopsy of other tissues, such as muscle or lymph node tissue, or tissue from another part of your body. A syringe or an automated needle may be used to take the tissue sample.

Your doctor will use the ultrasound images to guide the biopsy needle to exactly the right place in your body.

How does the procedure work?

- After gel is applied to your skin, the *sonographer* (ultrasound technologist) presses a *transducer* against your skin. A transducer is a hand-held device that sends and receives sound waves.
- As the sound waves bounce off your body's fluids and tissues, a picture of your tissues is created on a monitor.
- During an ultrasound-guided biopsy, you will lie on a table. You will need to hold fairly still for up to 1 hour or longer.



Before your procedure, the Radiology nurse will insert an intravenous (IV) line into a vein in your hand or arm. You may receive fluids or medicine to help you relax through this IV.

How should I prepare for the biopsy?

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 scan.
- 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 Exam

- 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, eyeglasses, or anything else that is in the area to be biopsied.
- The radiologist or physician assistant who does the procedure will explain this procedure to you in detail before your biopsy begins. They will describe the way it is done and possible problems, and give you instructions and self-care tips for after your procedure. Be sure to ask all the questions you may have.
- You will need to sign a consent form that says you understand what we talked about and that you agree to have this procedure.
- 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 sonographer will help place you on the ultrasound table. Pillows will be used to help you hold the correct position during your exam.

- The first few images will confirm the area to be biopsied and the safest way to reach this area.
- Once the location of the area to be biopsied is confirmed:
 - 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.
 - A local *anesthetic* will be injected. This will numb the area so that you do not feel the needle.
 - A small incision will be made in your skin. The biopsy needle will be inserted through this incision.
- You will be asked not to move or cough while the tissue sample is being taken. You may also be asked to hold your breath at different times. It is very important that you try to hold your breath each time you are asked to. This will help your doctor get tissue from the right area.
- Using the ultrasound image for guidance, your doctor will direct the needle to the right place and remove a small amount of tissue. Several tissue samples may be taken, but only 1 skin puncture is usually needed. After all the samples are taken, the needle will be removed.
- After any bleeding at the incision site has stopped, a bandage will be placed over your incision. Bleeding will be minor and you will not need stitches.
- After your biopsy, you will go to the limited-stay area. There, you will be monitored for any problems. Most patients are monitored for 4 or more hours before they leave the hospital.

What will I feel during the procedure?

- When you receive the local anesthetic to numb your skin, you will feel a slight pin prick from the needle. You may feel a burning sensation as the medicine is injected and takes effect. The area will become numb in a short time.
- You may feel pressure from the doctor's hands or from the biopsy needle itself.

What should I expect after the procedure?

- Usually, patients are told they may remove their bandage 24 hours after their biopsy.
- You may shower as normal the day after your biopsy.
- Do **not** do exercise such as heavy lifting, a lot of stair climbing, or sports activities the night of your biopsy and for 1 full day afterward.

- You may return to your normal activities 2 days after your biopsy, if you feel up to it.
- Talk with your radiologist if you plan to travel by air within 24 hours after your biopsy.
- Your biopsy site may be sore as the local anesthesia wears off. It should start to feel better 12 to 48 hours after your procedure.

When to Call for Help

Severe bleeding from a biopsy is rare. It occurs in less than 3% of patients (less than 3 out of 100 patients). Some symptoms that might be 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 results and how do I get them?

The radiologist will send a detailed report to your doctor who referred you for your biopsy. It may take a few days to a week, or more, for your doctor to get the *pathology* report from your biopsy. This report gives the details about 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: 206.598.6200
- Harborview Radiology: 206.744.3105