

Lumbar Puncture

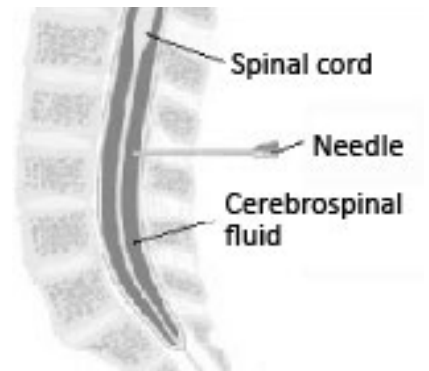
What to expect and how to prepare

This handout is for patients having a lumbar puncture. It explains what happens during the exam, what to expect, and how to prepare.

What is a lumbar puncture?

A *lumbar puncture* is an exam of your lower back (*lumbar region*). This exam is also called a *spinal tap*.

During the exam, we will insert a needle between 2 of your lumbar bones (*vertebrae*) and into your *cerebrospinal fluid* (CSF). CSF surrounds your brain and spinal cord and protects them from injury.



During this exam, a needle is inserted into the cerebrospinal fluid in your lower spine.

A lumbar puncture may be done to:

- Collect a sample of CSF. This fluid can be tested for color, blood cells, bacteria, malignancy, glucose, protein, and more.
- Measure the pressure of your CSF.
- Inject chemotherapy drugs or other medicines into the CSF.
- Inject *iodinated contrast* into the CSF. Contrast helps CSF show up more clearly in imaging studies such as a *myelogram* or *CT cisternography*. CT stands for *computed tomography*.

How do I prepare?

- Before your exam, tell your primary care provider (PCP) if you:
 - Are allergic to any medicines, such as lidocaine (numbing medicine), betadine, contrast, iodine, tape, or latex.
 - Take any medicines that thin your blood (*anticoagulants*). These include Coumadin (warfarin), Plavix, Lovenox, and other pain medicines such as aspirin, ibuprofen (Advil, Motrin, others) or naproxen (Aleve, Naprosyn, others).

- Take muscle relaxants, medicines for nausea, or any psychiatric medicines. Talk with the provider who prescribed your medicine about not taking it for 48 hours before and 24 hours after your exam.
- *If you were assigned female at birth:* Tell your provider if you are pregnant, breastfeeding, or if there is any chance you could be pregnant.
- After your lumbar puncture, you may have a headache. For your safety, we **strongly advise** that a responsible adult drive you home or ride with you in a bus, Uber, or taxi.

On the Day of Your Exam

At Home

- Eat a light meal early in the day, at least 2 hours before your exam.
- Wear comfortable clothing, with a top that fits loosely.
- Starting 2 hours before your exam:
 - Do **not** eat anything.
 - You may drink water up to your exam time. If you need to take medicines, take them with water.
- Bring a list of your medicines when you come for your exam.
- If you are having bloodwork done on the day of your exam, leave home early so you can have your blood drawn before your exam.

At the Hospital

- You may wear your own clothes for the exam.
- *If you were assigned female at birth:* Tell your technologist if there is any chance you could be pregnant.
- We will ask you to lie face down on an X-ray table. We will place a pillow under your belly. This helps widen the space between your vertebrae so that the radiologist can easily insert the needle. You will need to stay in this position for about 45 minutes.
- The radiologist will clean your back with betadine and then cover it with a *sterile* (germ-free) sheet.
- We will inject a local *anesthetic* (numbing medicine) into your lower back.

- When the area is numb, the radiologist will slowly insert a thin, hollow needle between 2 vertebrae, through the spinal membrane (*dura*), and into the CSF in your spinal canal. A type of X-ray called *fluoroscopy* is used to help guide the needle to the correct place.
- When the needle is in place, we may tilt the table. This helps the CSF flow to the right areas. The table has a foot board and a seat belt to keep you from moving when it tilts.
- The next steps depend on the purpose of your lumbar puncture:
 - **If CSF is being collected:** A small amount of fluid is taken and placed in small vials. This is usually 4 small samples.
 - **If CSF pressure is being measured:** A small amount of fluid is collected in special tubing.
 - **If chemotherapy or another drug is being injected:** The injection will occur at this time.
- We will then remove the needle, wipe your back clean, and cover the puncture site with a bandage.
- The procedure usually lasts about 45 minutes.

What will I feel during the exam?

- You will feel a brief sting when the local anesthetic is injected.
- You will feel light pressure in your back as the spinal needle is inserted.
- You may feel tingling from time to time as the needle is placed.
- If a drug or chemotherapy is injected, you may feel some pressure.

What can I expect after the exam?

- For your safety, we **strongly advise** that a responsible adult take you home. This person may drive you or ride with you on a bus, Uber, or taxi.
- Closely follow the self-care instructions the radiologist gave you.
- For **8 hours** after you get home:
 - Rest quietly.
 - Do **not** bend over.

- It is OK to sit in a chair for short periods and get up to use the bathroom.
- If you lie in bed, have the head of the bed raised at least 30 degrees.
- If you have a headache after the exam, you may take nonprescription pain medicine such as acetaminophen (Tylenol) for pain.
- **For 24 hours:** Drink extra fluids such as juices, water, or a sports drink.
- **For 2 days:** Do **not** take a bath, sit in a hot tub, or go swimming. Soaking in water increases the risk of infection. It is OK to shower.
- **For 3 days:**
 - Do **not** lift anything that weighs more than 10 pounds. (A gallon of milk weighs almost 9 pounds.)
 - Avoid doing anything that makes you breathe harder or makes your heartbeat faster.
- You may return to work the day after your exam, as long as you do not need to do any heavy lifting.

Who interprets the results and how do I get them?

A radiologist trained to interpret lumbar punctures will review your exam and send a report to the provider who referred you for this exam. Your own provider will give you your test results.

Most times, your provider receives the lab results within a few days, but it could take longer. Ask your provider when you can expect to receive the results of your tests. Your provider will combine the results from your lumbar puncture with any lab test results to help with your diagnosis.

You and your provider will then decide the next step, such as treatment for a problem, as needed.

You may also read your results on your MyChart page. If you need copies of your images on disc, call 206.598.6206.

Questions?

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

- UWMC - Montlake Imaging Services: 206.598.6200
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services: 206.368.1744