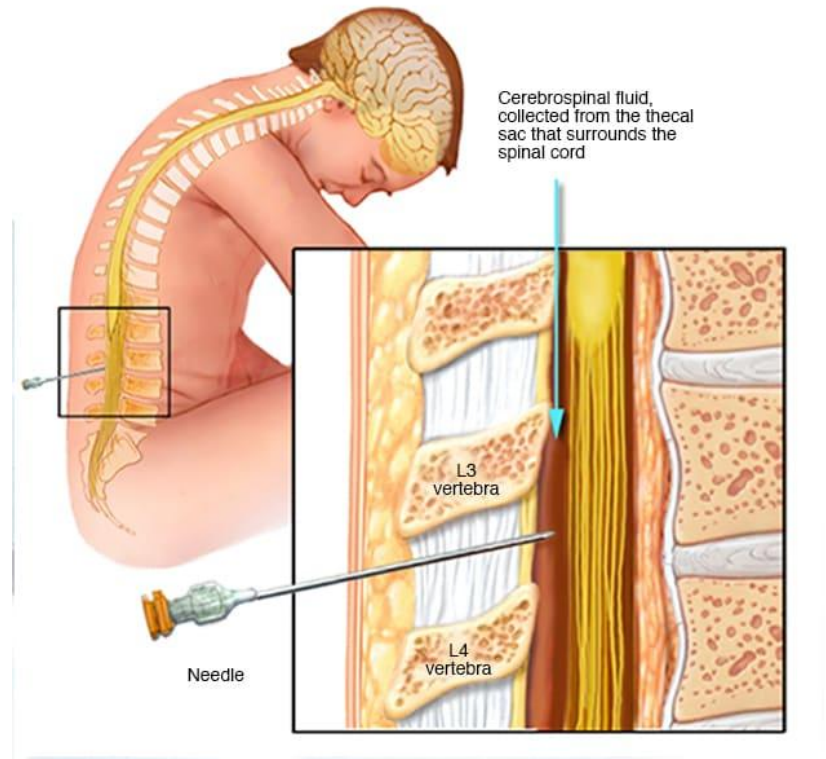


## Lumbar puncture (spinal tap)

### Overview

A lumbar puncture (spinal tap) is a test used to diagnose certain health conditions. It's performed in your lower back, in the lumbar region. During a lumbar puncture, a needle is inserted into the space between two lumbar bones (vertebrae) to remove a sample of cerebrospinal fluid. This is the fluid that surrounds your brain and spinal cord to protect them from injury.



A lumbar puncture can help diagnose serious infections, such as meningitis; other disorders of the central nervous system, such as Guillain-Barre syndrome and multiple sclerosis; bleeding; or cancers of the brain or spinal cord. Sometimes a lumbar puncture is used to inject anesthetic medications or chemotherapy drugs into the cerebrospinal fluid.

# How you prepare

Before your lumbar puncture (spinal tap), your health care provider takes your medical history, does a physical exam, and orders blood tests to check for bleeding or clotting disorders. Your provider may also recommend a CT scan or MRI to determine if you have any abnormal swelling in or around your brain.

## Food and medications

Your health care provider will give you specific instructions about food, drink and medications.

Tell your provider if you're taking blood-thinning or other anticoagulant medications. Examples include warfarin (Jantoven), clopidogrel (Plavix) and apixaban (Eliquis). Also, tell your provider if you're allergic to any medications, such as numbing medications (local anesthetics).

## What you can expect

A lumbar puncture (spinal tap) is usually done in an outpatient facility or a hospital. Your health care provider will talk to you about the potential risks, and any discomfort you might feel during the procedure.

## Before the procedure

You may be asked to change into a hospital gown, although in some cases you may have the procedure while wearing your own clothing. There are a few possible positions for a lumbar puncture (spinal tap). Usually, you lie on your side with your knees drawn up to your chest, or you sit and lean forward on a stable surface. These positions flex your back, widening the spaces between your vertebrae and making it easier for your health care provider to insert the needle. Your back is washed with antiseptic soap or iodine and covered with a sterile sheet.

## During the procedure

- A local anesthetic is injected into your lower back to numb the puncture site before the needle is inserted. The local anesthetic will sting briefly as it's injected.
- A thin, hollow needle is inserted between the two lower vertebrae (lumbar region), through the spinal membrane (dura) and into the spinal canal. You may feel pressure in your back during this part of the procedure.
- Once the needle is in place, you may be asked to change your position slightly.
- The cerebrospinal fluid pressure is measured, a small amount of fluid is withdrawn and the pressure is measured again.
- The needle is removed, and the puncture site is covered with a bandage.

The procedure usually lasts about 45 minutes. Your health care provider may suggest lying down after the procedure.

Sometimes, an ultrasound may be used as a guide during a lumbar puncture.

## After the procedure

- **Plan to rest.** Don't participate in strenuous activities the day of your lumbar puncture (spinal tap). You may return to work if your job doesn't require you to be physically active. Discuss your activities with your health care provider if you have questions.
- **Take a pain medication.** A nonprescription pain-relieving medication that contains acetaminophen (Tylenol, others) can help reduce a headache or back pain. If your headache becomes severe, call your health care provider.