

Lumbar Puncture Information Sheet

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***Please review this document in detail and ask the physician any questions you may have prior to the procedure**

Test Overview

A lumbar puncture (LP, also called a spinal tap) is a test to evaluate the fluid surrounding the brain and spinal cord (cerebrospinal fluid, or CSF). During a lumbar puncture, a needle is inserted into the spinal canal. Samples of CSF are collected and later analyzed for color, blood cell counts, protein, glucose, and other substances. The pressure of CSF also is measured during the test.

Why It Is Done?

A LP is done to:

- Evaluate symptoms possibly caused by an infection, inflammation, cancer, or bleeding in the area around the brain or spinal cord.
- Help diagnose certain diseases of the brain and spinal cord (such as multiple sclerosis or Guillain-Barré syndrome).
- Measure the pressure of cerebrospinal fluid (CSF) in the space surrounding the spinal cord. A lumbar puncture may occasionally be used to decrease pressure in the brain caused by an excess of CSF.

How To Prepare

Before you have a lumbar puncture, tell your doctor if you:

- Are taking any medications.
- Are allergic to any medications, including anesthetics.
- Have had bleeding problems.

How It Is Done

You will be asked to lie on a bed on your side with your knees drawn up toward your chest. A less common position for the test is for you to sit on the edge of a chair or bed and lean forward over a table with your head and chest bent toward your knees. These positions help widen the spaces between the bones of the lower spine so that the needle can be inserted more easily.

The doctor examines your lower back (lumbar area) and marks the proper insertion site. The area is then cleaned with an antiseptic and draped with sterile towels. A local anesthetic is injected under the skin to numb the area where the needle will be inserted. After the anesthetic has taken effect, a thin needle is inserted into the spinal canal. Sometimes the needle has to be removed and repositioned several times to locate the spinal canal. Once the needle is inside the spinal canal, a device called a manometer is attached to the needle to measure the pressure of the CSF. Samples of fluid are collected and sent to the lab for analysis. The needle is then withdrawn and the puncture site is cleaned and bandaged.

Occasionally no spinal fluid can be obtained and the test will be terminated. You may be asked to have the procedure repeated at a later date at the hospital with the aid of an X-ray (fluoroscopically).

The entire test takes about 15-30 minutes but you will be asked to lie flat for about 30 minutes following the procedure.

To reduce your chance of getting a headache following a lumbar puncture, upon returning home you are advised to lie flat in bed for 3-4 hours and drink fluids. Since your brain replaces your entire supply of CSF 2 to 3 times a day, the small amount of fluid that was removed will be rapidly replaced.

How It Feels

Some people find it uncomfortable to lie curled up on their side. The antiseptic solution may feel cold on your back. You will probably feel a brief stinging sensation when the local anesthetic is injected. You may feel a brief pain when the spinal needle is inserted or repositioned. During the test, the needle may touch one of your spinal nerves and produce a tingling sensation, like a light electrical shock running down one of your legs. The needle will not touch or damage the spinal cord because it is inserted well below the lower end of the spinal cord.

Some people (10% to 25%) develop a headache after having a lumbar puncture. These headaches normally last 24 to 48 hours and go away on their own. Lying flat in bed for several hours after the test may relieve the headache. You may feel tired and have a slight backache the day after the test.

Contact your doctor immediately if you have:

- Chills or a fever higher than 100.5 °F(38.1 °C).
- Any drainage or bleeding from the puncture site.
- A severe headache or stiff neck.
- Any numbness or loss of strength.

Risks

A lumbar puncture is generally a safe procedure. Occasionally, a leak of cerebrospinal fluid (CSF) may develop after a lumbar puncture. Symptoms of this problem may include a persistent headache that does not go away after 1 to 2 days. A CSF leak can be treated with a blood "patch," in which the person's own blood is injected into the area where the leak is occurring.

A lumbar puncture may be dangerous for the small number of people who have increased pressure within the brain caused by a tumor, a pocket of infection in the brain (abscess), or major bleeding inside the brain. People who have bleeding disorders and those who are taking a blood-thinning medication are at increased risk of continued internal bleeding after the procedure.

Approximately 1 in 1,000 people who have this test suffers some minor nerve injury, which usually heals on its own with time. There is also a slight risk of infection of the CSF (meningitis), bleeding inside the spinal canal, or damage to the cartilage between the vertebrae. You should discuss your particular risks with your doctor.

I have reviewed and understand the above information. I have had an opportunity to ask any questions of my physician prior to the procedure.

Signature

Date