

Lumbar Puncture

A lumbar puncture, also called a spinal tap, is a procedure where the doctor inserts a needle in your lower back (lumbar) between two bones (vertebrae) to remove a sample of cerebrospinal fluid (CSF). CSF surrounds your brain and spinal cord to protect them from injury.

A lumbar puncture will help your doctor diagnose conditions such as:

- normal pressure hydrocephalus
- bleeding around the brain called a subarachnoid hemorrhage
- inflammation of the nervous system such as multiple sclerosis or Guillain-Barre syndrome
- cancers involving the brain or spinal cord

What are the risks?

A lumbar puncture is a safe procedure but some possible complications can happen afterwards:

- headache during the first few hours to days after the procedure
- bleeding at the puncture site
- infection at the puncture site
- pain in your lower back
- numbness to your legs or lower back

The doctor will discuss these risks with you before the procedure.

Before the procedure

You will change into a gown. Please remove all clothing (except underwear) and jewellery.

During the procedure

You will either lie or sit on a bed. Both positions allow your back to arch and helps widen the space between your vertebrae:

- If you are lying down, lie on your side with your chin tucked to your chest and knees tucked to your stomach.
- If you are sitting down, sit on the edge of the bed and hang your arms over the table in front of you.

The skin on your lower back will be cleaned.

The doctor will inject a local anaesthetic to freeze or numb your lower back area. You may feel a sting for a few seconds but this will make the lumbar puncture less painful.

The doctor will insert the lumbar puncture needle. You will feel some pressure. **You will need to stay very still during the insertion.**

From the needle, the doctor will collect a small amount of CSF into test tubes.

After the procedure

The doctor will remove the needle and apply a bandage to the puncture site. The test tubes will be sent to the lab.

You may feel sore at the puncture site. You will usually not need pain medications after a lumbar puncture.

You may be able to eat and drink after the procedure.

Going home

You will be in the hospital for one hour until it is safe for you to go home.

1. Headache

Watch for these signs and symptoms of a headache after your procedure.

You may develop a headache during the first few hours to a few days after the procedure. The headache may be mild to severe. It may get worse when you sit or stand and get better when you lay flat.

Tips to help ease a headache:

- **Drink plenty of liquids.** Drink more liquid than usual. Ask how much liquid is right for you.

Caffeine may treat a headache. Drinks such as coffee, tea or some colas have caffeine. Caffeine is also available over the counter in tablet form. Ask about using caffeine to treat your headache. Do NOT drink alcohol.

- **Acetaminophen (Tylenol®).** You may take as directed for headache if you are not taking any other medications that contain acetaminophen. Too much acetaminophen can damage your liver.
- **Lie down.** It may be helpful to lie down and rest.

2. Puncture Site

After 12 hours, you can remove the bandage from your back.

3. Bathing/Showering

Wait 48 hours before taking a bath or using a hot tub. You may shower after the procedure.

4. Activity

On the day of your procedure, rest as much as possible.

For the next two days, only do very light activity. Do NOT do strenuous activities such as bending, straining or lifting anything heavier than 10 pounds or 4.5 kilograms.

5. Diet

Continue to eat and drink as you normally would but drink extra fluids. This will help to replace the CSF fluid collected and help prevent a headache and constipation.

Go to the Emergency Department or call 911 right away if:

- You have a severe headache that does not get better after you lie down.
- You have a fever (38.5° C or 100° F) and chills.
- You have a stiff neck or have trouble thinking clearly.
- Your legs, feet or other parts below your waist feel numb, tingly or weak.
- You have bleeding or discharge coming from the area where the needle was put into your back.
- You have severe pain in your back or neck.
- You have increasing pain at the puncture site.