



Your doctor has suggested that you have an exam called a lumbar puncture. This fact sheet describes the exam and provides tips to make sure everything goes as smoothly as possible.

What is a lumbar puncture?

The brain and spinal cord are bathed in a fluid called “cerebrospinal fluid”. Lumbar puncture consists of removing a little of this fluid with a needle. The lumbar region, located in the lower back, is a safe place to do the puncture.

The exam is done in hospital by a doctor.

What is the purpose of the exam?

The puncture is done to measure the pressure of the cerebrospinal fluid and analyze this fluid to:

- > see if there has been bleeding in the skull: this could be due to the rupture of a small pocket of blood that has formed on an artery (an aneurysm)
- > look for signs of an infection (such as meningitis or encephalitis)
- > look for inflammation caused by a disease
- > in some cases, administer a drug or detect cancer cells

What happens during a lumbar puncture?

Here are the different stages of the exam:

- 1** You put on a hospital gown (a kind of nightgown).
- 2** You lie down in the fetal position to open up the space between the vertebrae of your spine. For this, you need to lie on your side, bend your knees, bring them up towards your chin, and then press your chin against your chest. Sometimes the puncture can be done in a sitting position.
- 3** Your lower back is cleaned with a disinfectant.
- 4** Your lower back is “frozen” (local anesthesia) with a product injected with a small needle. The effect is immediate. You need to hold still and breathe normally during the entire procedure.
- 5** A needle is then inserted between two vertebrae in the lower back. The pressure of the fluid is measured, and then about half of a tablespoon is usually taken.
- 6** The needle is removed.

During the puncture, the movement of the needle sometimes causes slight pressure, but but it should not be painful. If you have back or leg pain, tell the doctor but don't move. The doctor may change the position of the needle or redo the anesthesia.

How long does the puncture take?

It takes 2 to 4 hours in total:

- 2 hours before the puncture if you haven't recently had a blood test, to check your risk of bleeding during the puncture
- 30 minutes to take the sample
- 1 hours of rest in a lying position, with the head of the bed flat, under the supervision of the care team

Are there any precautions to take BEFORE the puncture?

Before the exam:

- You can eat and drink.
- You should tell the medical team if you're allergic to local anesthetics, iodine, disinfectant or latex.
- Your doctor may offer you a sedative if you're very anxious. Contact your doctor a few days ahead of the exam to obtain the sedative in time.
- Plan for someone to accompany you on your return home.

What happens when I return home?

When you get back home, rest until the next day. If this isn't possible, at least don't do any strenuous physical activity.

Cerebrospinal fluid is replenished quickly. Within 20 to 30 minutes after the procedure, the fluid that was removed will already be replaced.

Drink plenty of liquids unless you have instructions to the contrary. If you can, drink coffee or tea.

Are there any risks or side effects related to lumbar puncture?

Here are some possible side effects:

> More common side effects:

- A headache when sitting or standing. This pain disappears when lying down. It happens to some patients within a few hours or days after the puncture. It usually clears up on its own.

However, it can last up to a week. Contact your healthcare team if it interferes with your daily activities or if it's not relieved by medication or by lying down.



- Slight pain at the site of the puncture, for a few hours to a few days. This usually clears up on its own.
- During the exam, sometimes a person might feel weak and lose consciousness, as can also happen to some people when blood is drawn for testing.

> Less common side effects:

- dizziness
- vertigo
- ringing in the ears
- hearing loss
- double vision
- drowsiness

> **Rare side effects:**

- infection at the puncture site (1 in 1,000 cases).
- bleeding or permanent injury to the nerve roots that can cause sensory problems or paralysis (1 in 10,000 cases)

When will the results be ready?

The time it takes to get the results can vary depending on what they are looking for. Your doctor will tell you when to phone to get the results.

When should I consult?

Consult your doctor quickly if you have:

- a headache that lasts more than 24 hours (even if you've been drinking water and resting enough)
- fever: 38.5°C (101°F) or higher

Who should I contact if I have questions or a problem?

You can call the CHUM Patient Health Line.



CHUM PATIENT HEALTH LINE

514 890-8086

24 hours a day, 7 days a week

You're a CHUM patient? You have questions about your health status? A nurse can help you.



USEFUL RESOURCES

Other health sheets published by the CHUM are available. Ask for those that might fit your situation.



You can also find them on our website chumontreal.qc.ca/fiches-sante



NOTEPAD



Questions



Resource people and contacts

The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.

To find out more about the Centre hospitalier de l'Université de Montréal chumontreal.qc.ca

