

Having a lumbar puncture for your diagnosis

Information for patients



What is a lumbar puncture?

A lumbar puncture or spinal tap is a routine medical procedure. It involves inserting a needle in your lower back to drain a sample of fluid from the space beneath your spinal cord. This fluid is called cerebrospinal fluid (CSF). It bathes, protects and cushions your brain and spinal cord.

Lumbar punctures help diagnose neurological conditions. They are also used to reduce the pressure around your brain and spinal cord. Your healthcare professional will explain the reason for your lumbar puncture. If you don't understand, please ask.

What happens before the lumbar puncture?

Your healthcare professional will:

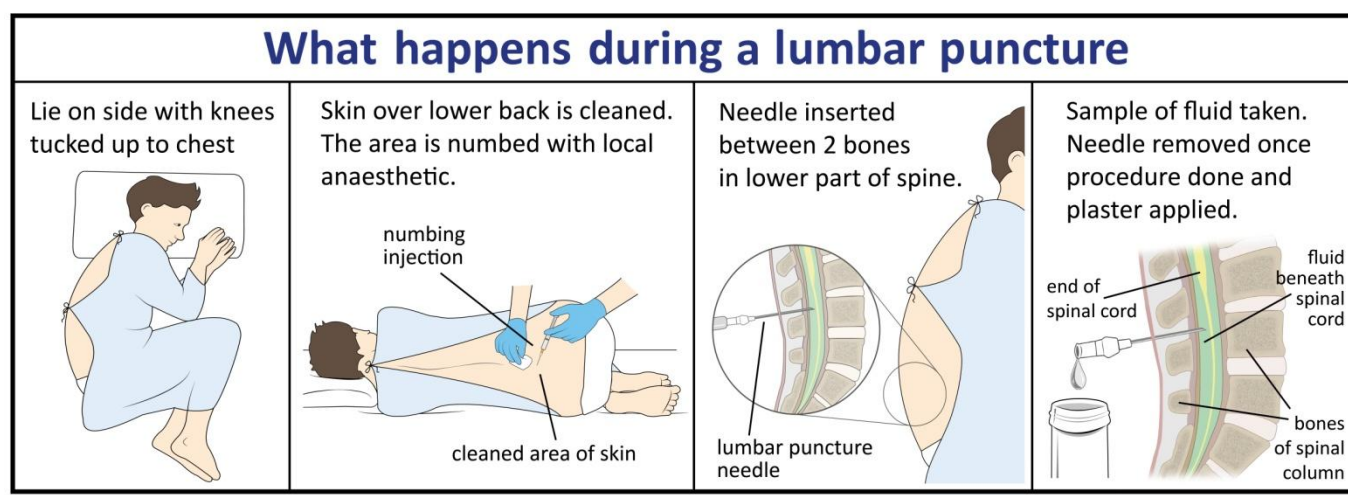
- Ask you to change into a hospital gown and uncover your back
- Lie you on your side with your knees tucked up to your chest. Sometimes, we ask you to sit up and lean forward, curving your lower back
- Clean the skin over the lower back with antiseptic, which will feel cold and wet
- Numb the area with a local anaesthetic injection. The injection may sting.

What happens during the lumbar puncture?

Once the numbing starts to work, your healthcare professional will:

- Insert a sterile needle between 2 bones in the lower part of your spine. It can take time to find the correct position, which may be uncomfortable
- Measure the pressure of the fluid
- Take samples of the fluid. This takes a few minutes
- Remove the needle once the procedure is done and apply a plaster.

Lumbar punctures take around 30 minutes. Sometimes it can take longer- especially if it is difficult and we have to repeat the process to get a sample



What are the risks?

Usually, there are no side effects. The risks of some side effects are higher with a different type of needle. Your healthcare professional will discuss this and any other specific risks to you.

The most common side effects are [1]:

- Short-lived back pain (1 in 11 people)
- Shooting leg pain during the procedure (1 in 11 people)
- Headache (1 in 15 people), although few will need further treatment (1 in 60)
- Persistent leak of the fluid around the spine, which may need a blood patch to treat (1 in 100)
- If the first attempt is unsuccessful, we may need to repeat the procedure (1 in 7)
 - This is more likely if you are overweight, have had lower back surgery or an abnormal spine (scoliosis), or are pregnant
 - Sometimes, we need the help of a radiologist to do scans to guide the needle. If this happens, we will explain it to you.

There are also some more serious, rare risks [2]:

- Infection: abscess (1 in 47,000 people) or meningitis (1 in 200,000 people)
- Serious bleeding around the spinal cord (1 in 100,000 people) or the brain (extremely rare)
- Permanent nerve damage causing numbness (1 in 100,000 people) or paralysis (extremely rare).

What are the other options?

Sometimes it is possible to do scans or other blood tests to diagnose your condition. However, often there are no good alternatives to a lumbar puncture.

What happens if I don't have a lumbar puncture?

It may be harder to make a diagnosis without a lumbar puncture, which can delay starting treatment. Lumbar punctures are the only way to give some treatments.

[¹] Nath S, et al. Atraumatic versus conventional lumbar puncture needles: a systematic review and meta-analysis. *Lancet*. 2018 Mar 24;391(10126):1197-1204.

[²] NAP3: Major Complications of Central Neuraxial Block in United Kingdom, Available from: www.nationalauditprojects.org.uk/NAP3_home?newsid=464 [Accessed on 16th December 2021]

What should I do after the lumbar puncture?

Drink plenty of clear, non-alcoholic fluids. You can remove the plaster yourself after a day.

If you have a headache or feel light-headed:

- Try lying down
- Take painkillers, such as paracetamol
- Try drinks with caffeine such as coffee, tea, or cola.

Avoid:

- Operating heavy machinery for at least 24 hours
- Strenuous exercise for at least 48 hours.

Contact the hospital team, your GP, or call NHS 24 on 111 if:

- Your headache is severe or is not getting better after a week
- You are vomiting
- You have a high temperature or feel hot and shivery
- You have a swelling in your lower back that lasts more than a few days and worsens
- You have persistent leg pain, tingling, or numbness
- You have difficulties urinating.



<h2>Consent Form for a Lumbar Puncture</h2>	Addressograph, or
	Name
	DOB
Unit No./CHI	

Name of procedure/investigation: **Lumbar Puncture**

We insert a needle in the lower back between the bones of the spine to take a sample of fluid from below the spinal cord and measure the pressure there. This can help us to diagnose various conditions.

Please read the patient information leaflet for further details: '**Having a Lumbar Puncture for your diagnosis' version 2.1**

Following a request for further information: Statement of the healthcare professional	
With appropriate knowledge of the proposed procedure, I have explained the procedure to the patient, in particular:	
The intended benefits of the procedure:	
The possible risks involved. I have discussed and listed below the significant, unavoidable and/or frequently occurring risks, including any risks that may be of specific concern to the patient :	
Risks specific to Lumbar Puncture are: short lived back pain, shooting leg pain during the procedure, headache, persistent fluid leak around the spine or brain, bleeding, infection and permanent nerve damage causing numbness or paralysis	
The benefits and risks of alternative treatments that might be offered for this patient – including the option of no treatment:	
Healthcare Professional's signature:	Date:
Print name and job title:	___/___/___

Statement of interpreter (where appropriate)	
I have interpreted the information above to the patient/parent to the best of my ability and in a way in which I believe that she / he / they can understand	
Signature:	Date:
Print name:	___/___/___
Or, please note the telephone interpreter ID number:	

To the patient

You have the right to change your mind at any time, including after you have signed this consent form.

I have read and understood the information in the patient information leaflet.

I confirm that the risks, benefits and alternatives of this procedure have been discussed with me, and that my questions have been answered to my satisfaction and understanding.

I have allergies to iodine, chlorhexidine or lidocaine: YES ☐ NO ☐

I have problems with bleeding or blood clotting: YES ☐ NO ☐

I am on blood thinners such as warfarin or apixaban: YES ☐ NO ☐

I wish to proceed with the planned procedure.

Signature:

Print name:

Date:

___/___/___

If the patient is unable to sign but has indicated his/her consent, a witness should sign below:

Signature (Witness)

Print name:

Address:

Date:

___/___/___

Does the patient have a signed Adults with Incapacity Certificate? YES ☐ NO ☐