Caring at its best

University Hospitals of Leicester

Having a lumbar puncture to get a sample of spinal fluid (adults)

Information for Patients

Produced: March 2022 Review: March 2025 Leaflet number: 313 Version: 2

What is a lumbar puncture?

A lumbar puncture (LP) is a common procedure performed to take a sample of cerebrospinal fluid (CSF). CSF is a special fluid in your body that surrounds and protects the brain and spinal cord and is constantly made by your body.

Why are lumbar punctures useful?

CSF analysis and pressure measurement can help diagnose a wide range of neurological conditions. The procedure can be done as an emergency test or as a planned procedure. Your doctor should have explained why the lumbar puncture is needed.

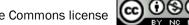
Please ask if you are still unsure or have any further questions.

How is it done?

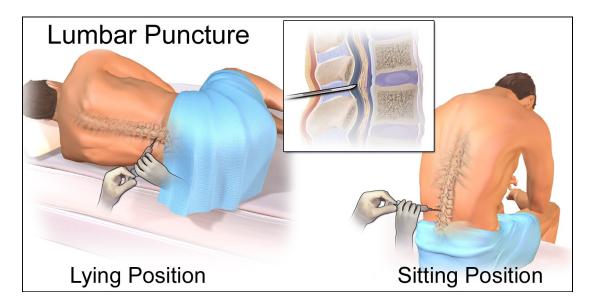
- You will be asked to give your consent before the lumbar puncture (unless you are unable to give consent due to illness). The doctor will explain what is involved at this time too.
- You can eat and drink normally beforehand, but please use the toilet so you aren't uncomfortable during the procedure.
- It can be done lying down on your side with your knees tucked up in the foetal position (staff can help). It can also be done sitting down, bending forwards and resting your arms on a chair.
- It usually takes about 15 to 20 minutes.

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk



- The skin on the back is cleaned with an antiseptic wipe, which can feel cold. Local anaesthetic is injected under the skin with a very small needle. This is used to numb the area and can sting for a few seconds.
- It is important not to move.
- A thin needle is inserted through the gap between 2 spinal bones below where the spinal cord ends (so there is no risk of injuring the spinal cord).
- You may feel a pushing or pressure sensation as the lumbar puncture needle is inserted which can be slightly uncomfortable.
- It is normal to feel a similar sensation down one leg. This does not mean anything is wrong, but please let us know if you do feel this.
- The CSF fluid pressure is measured with a small tube (manometer) and small amounts are taken for laboratory analysis.
- The needle is taken out and a small dressing is applied to the skin, which you can take off after 1 day.



Blausen.com staff (2014). "<u>Medical gallery of Blausen Medical 2014</u>". WikiJournal of Medicine **1** (2). <u>DOI:10.15347/wjm/2014.010</u>. <u>ISSN2002-4436</u>.

Aftercare advice

- Lie flat for 30 minutes.
- Drink plenty of fluids.
- If you get a headache then simple painkillers such as paracetamol can be taken. Caffeine may also help, such as coffee or tea.
- It is recommended to avoid driving or manual labour for a day.

When will the results be known?

Some results can come back within a day, others can take weeks. It depends on which tests have been requested by your doctor and why the lumbar puncture is being done.

Are there any risks?

- **Headache** around 10% of people will develop a headache after having a lumbar puncture. It is due to leakage of spinal fluid. Sometimes neck stiffness, feeling sick (nausea) and dizziness can develop temporarily. Painkillers, fluids, lying flat and drinking caffeine can make the headache better. In rare cases the headache is severe and needs medical attention.
- **Back pain** at the site of needle insertion. Use paracetamol.
- **Procedure** occasionally we cannot obtain a sample for technical reasons. The procedure can be repeated with X-rays to guide the needle to the right place.
- **Bleeding** before the lumbar puncture, you should tell the doctor if you are taking blood thinning medications such as aspirin, clopidogrel, warfarin, apixaban, rivaroxaban or dabigatran. You should also inform them if you have any bleeding disorders.

Extremely rare risks:

- **Nerve damage** usually from nerve irritation which is temporary. Tingling or discomfort in legs.
- **Infection** contact a doctor immediately if you develop a high fever in the days after the lumbar puncture, or you notice any significant redness or swelling around the site of the lumbar puncture.
- **Blood clot** surgery may be needed if a blood clot develops around the spinal cord.

What should I look out for?

Seek medical advice from your GP or call the NHS helpline on 111 if you have:

- severe, persistent headache which does not go away after lying flat.
- weakness in your arm or leg.
- losing control over bowels or bladder.
- a high temperature (38 degrees).
- sweats or confusion.
- severe eye pain on seeing light.

Who can I contact if I have a query?

If you had your procedure in an outpatient clinic, please contact the consultant's secretary if you have any queries.

If you had your procedure as an inpatient as an emergency, please contact the ward team, or the consultant's secretary, or your GP if you have been discharged home.

اگر آپ کو یہ معلومات کسـی اور زبان میں درکار ہیں، تو براہِ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔ علی ھذہ المعلومات بلغةٍ أُخری، الرجاء الاتصال علی رقم الهاتف الذي یظهر في الأسـفل જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ `ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ। Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk

LEICESTER'S

Leicester's Hospitals is a research active trust so you may find research happening on your ward or in your clinic. To find out about the benefits of research and become involved yourself, speak to your clinician or nurse, call 0116 258 8351 or visit www.leicestersresearch.nhs.uk/ patient-and-public-involvement