

# **PATIENT INFORMATION LEAFLET**

## **LUMBAR PUNCTURE (LP)**





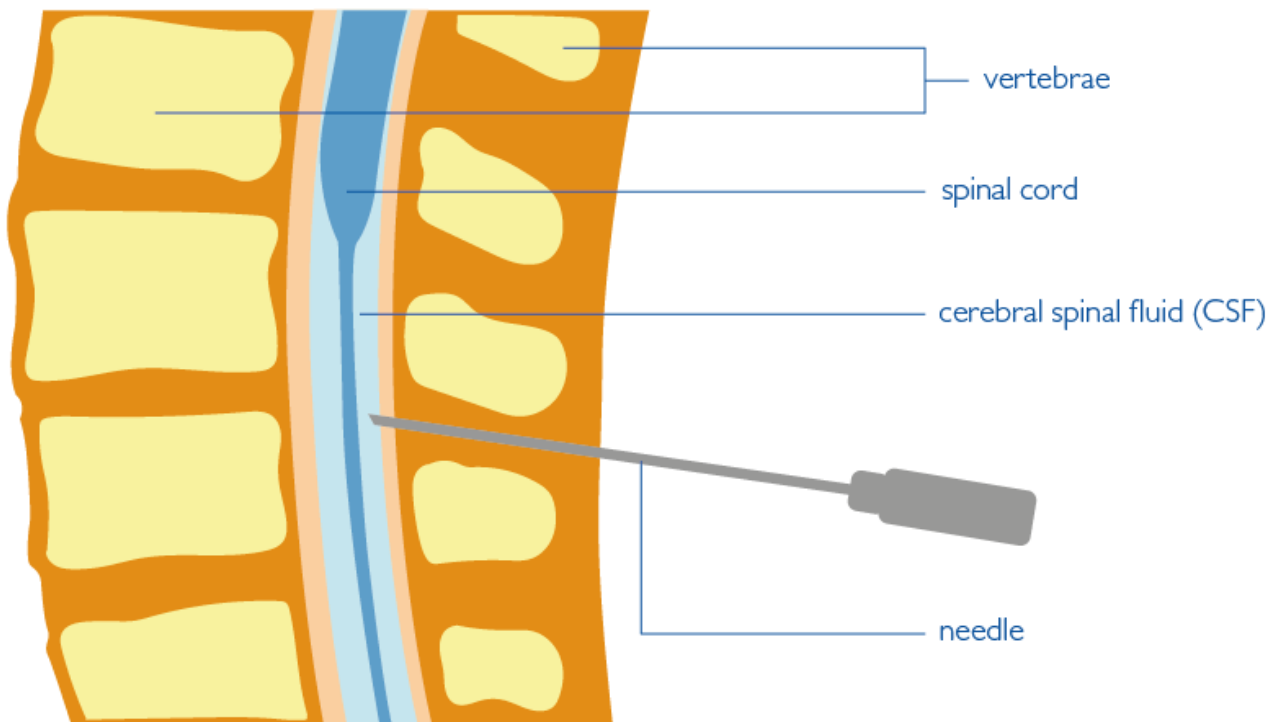
## Introduction

This leaflet aims to answer your questions about undergoing a lumbar puncture (LP), and will discuss the indications, preparation, procedure, necessary post-procedure precautions and associated risks. However, it is advisable that any further clarification should be discussed with the medical team proposing the LP.

## What is a Lumbar Puncture?

It is a procedure which involves introducing a small needle between the spinal bones in the lower back to take a sample of cerebrospinal fluid (CSF) which circulates the brain and spinal cord.

Lumbar puncture diagram



## Indications

- Brain infection (meningitis, encephalitis)
- Bleed in the brain (subarachnoid haemorrhage)
- High pressure in the brain (intracranial hypertension)
- Rare brain diseases (Guillain-Barré syndrome, multiple sclerosis, normal pressure hydrocephalus)

A LP can be used as a treatment to remove excess CSF around the brain (high pressure in the brain), and can also deliver medications.

*If you have any further questions about a LP, please ask the healthcare professional performing the procedure.*

## Preparation for the procedure

Before having a LP, your healthcare provider will explain all aspects of the procedure which you have read in this leaflet and will answer any outstanding questions that you may have. You will be asked to sign a consent form prior to the procedure once you are fully informed and comfortable to proceed.

Some medications, such as blood thinners (warfarin, apixaban, edoxaban, rivaroxaban, dabigatran, aspirin, clopidogrel) will be held before the procedure. Please always check with your doctor for further advice if you are on these medications.

You also need to inform your healthcare provider about any bleeding disorders or back problems that you may have.

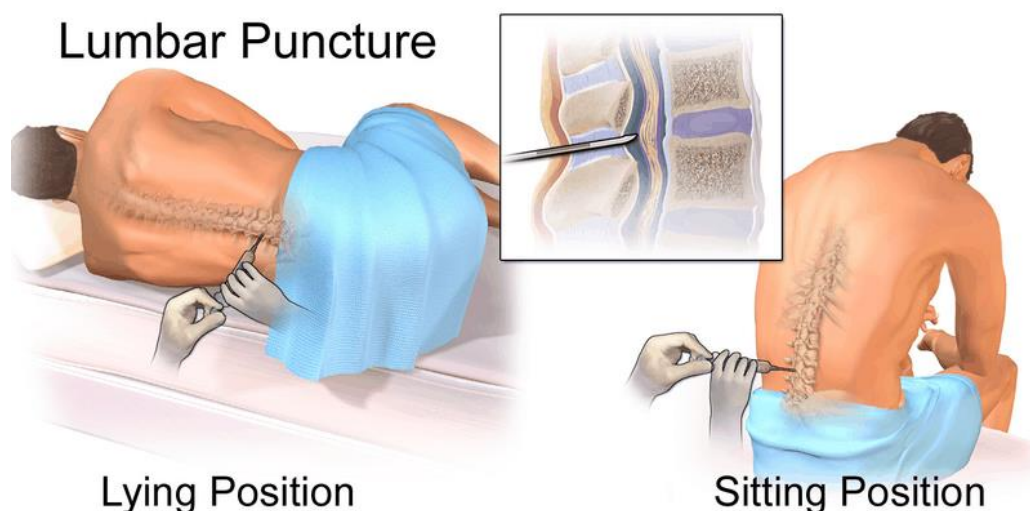
You may inform your employer about you having a LP so that you can refrain from driving or strenuous manual labour the following day.

If you require a translator for the procedure, please inform the medical team.

## The Procedure

Usually a LP will take 15-20 minutes, but this may vary.

You will be asked to get into either the lying position (lie on your side with your knees tucked into the chest) or the sitting position (bending forward at the end of the bed).



1. Your clinician will feel for an appropriate place in the lower back for the needle insertion point.
2. This area will be thoroughly cleaned with an antiseptic.
3. A local anaesthetic will be injected with a small needle to numb the area. You may feel stinging or burning for a few seconds.
4. The practitioner will then insert the small LP needle into the space between the spinal bones in the lower back. It is important that you remain still during the procedure so that the needle does not move. You may feel a pushing sensation which may be uncomfortable, but it should not be painful. If you feel pain or a tingling sensation during the procedure, please let the doctor know.
5. Once the needle is in the right place, the pressure of the fluid may be measured by attaching a small plastic tube called a manometer.
6. Samples of the fluid (CSF) will be taken and sent to the laboratory.
7. The needle will be removed and a dressing will be applied.

## Post-procedure

- You will be asked to lie flat for 30 minutes after the procedure.
- Usually you can be discharged the same day as the procedure, but please allow time for results to be analysed.
- Please drink plenty of fluids following the procedure to prevent post-procedural headache. Sometimes, people find lying down and drinking caffeinated beverages helps. You can take paracetamol if required.
- Take plenty of rest and avoid strenuous activity for 24 hours after. You can resume work or driving after this period and if you feel well enough to do so.

*You may want to bring somebody with you to drive you home or you can arrange transport for yourself by speaking with the receptionist.*

## Results

Some of the results may be available in a few hours, however please be aware that some specialised tests may take up to a few days or weeks to be reported.

Your consultant will advise on any follow-up plan or further investigations that may need to be performed following the results.

*Please ask the clinician for more information about when your results will be available.*

## Associated risks and complications

COMMON	<p><b>Headache:</b> Usually dull or throbbing in nature. This is caused by a decrease in the pressure around the brain when the fluid is removed. It may develop within 48 hours of the procedure, and may persist for a few days. You should drink plenty of fluids, especially caffeinated beverages, and lie flat if you develop a headache. Simple pain-killers such as paracetamol may be taken.</p> <p>If headache persists for more than a few weeks or becomes severe, please seek medical advice.</p>
	<p><b>Back Pain:</b> This is at the site of the needle insertion. You may take simple pain-killers such as paracetamol for this pain.</p>
	<p><b>Procedure Failure:</b> Approximately 5% of all LP may be difficult to perform due to the spinal deformities or being overweight. The procedure may be repeated under imaging guidance or in theatre by an anaesthetists.</p>
RARE	<p><b>Infection:</b> This can occur as the needle is introduced through the skin. Clinicians reduce this risk by ensuring that the skin is thoroughly disinfected before and all the equipment is clean.</p>
	<p><b>Blood clot:</b> One of the rarest but serious complications which can develop at the site of the needle insertion or in the brain/spinal cord. You may discuss this with your healthcare provider.</p>
	<p><b>Nerve Damage:</b> This can cause a tingling sensation or weakness in both legs, however this is extremely rare (1 in 1000).</p>



## Alternative to the lumbar puncture

Alternatives depend on the indication for arranging an LP but most of the conditions (listed in the indications) have no alternative to lumbar puncture. However, brain imaging within 6 hours of headache may rule out a bleed in the brain, or medications such as acetazolamide may be tried in conditions with high pressures in the brain (intracranial hypertension).

If you have any further questions, please speak to the medical team.

## Seek Urgent Medical Advice if you develop:

- A severe headache that does not resolve with pain relief
- Fever
- Confusion
- Neck stiffness
- Intolerance to bright light (photophobia) or blurred vision
- Redness, swelling or skin changes over the needle site
- Loss of bladder or bowel control
- Weakness or altered sensation in your limbs

## Helpful Resources

1. NHS UK: Lumbar Puncture
2. Patient UK: Lumbar Puncture (Spinal Tap)

**During your contact with us, it is important that you are happy with your care and treatment. Please speak to a member of staff and/or the ward/department Sister/Charge Nurse if you have questions or concerns.**

## **MATRON**

A Matron is also available during the hours of 9am to 5pm from Monday to Friday. During these periods, ward/department staff can contact a Matron to arrange to meet with you. Out of hours, a Senior Nurse can be contacted via the ward/department to deal with any concerns you may have.

## **INFECTION CONTROL REQUEST**

Preventing infections is a crucial part of our patients' care. To ensure that our standards remain high, our staff have regular infection prevention and control training, and their practice is monitored in the workplace. We ask patients and visitors to assist us in preventing infections by cleaning their hands at regular intervals and informing staff of areas within the hospital that appear soiled.

As a patient there may be times that you are unsure whether a staff member has cleaned their hands; if in doubt please ask the staff member and they will be happy to put your mind at ease by cleaning their hands so that you can see them.

## **SPECIAL INSTRUCTIONS**

### **ANY CONDITION SPECIFIC DANGER SIGNALS TO LOOK OUT FOR:**

### **CONTACT INFORMATION IF YOU ARE WORRIED ABOUT YOUR CONDITION**

- Your own GP

### **OTHER USEFUL TELEPHONE NUMBERS/CONTACTS:**

NHS 111

Stop Smoking Helpline (Sefton) – 0300 100 1000

Stop Smoking Helpline (West Lancashire) – 0800 328 6297

**Please call 01704 704714 if you need  
this leaflet in an alternative format**

**Southport and Ormskirk Hospital NHS Trust**

Ormskirk & District General Hospital  
Wigan Road, Ormskirk, L39 2AZ  
Tel: (01695) 577111

Southport & Formby District General Hospital  
Town Lane, Kew, Southport, PR8 6PN  
Tel: (01704) 547471

**FOR APPOINTMENTS**

Telephone (01695) 656680  
Email [soh-tr.appointments@nhs.net](mailto:soh-tr.appointments@nhs.net)

We would welcome your feedback about your experience  
at Southport and Ormskirk Hospital NHS Trust.  
Please access the Friends and Family Test at the following  
link:

[https://www.southportandormskirk.nhs.uk/patients-and-  
visitors/fft/](https://www.southportandormskirk.nhs.uk/patients-and-visitors/fft/)

**Thank you**

Author: Dr N Khan, Dr I Khawaja, Dr M Diwan

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