

Service:
Neurology

Lumbar Puncture



What is a lumbar puncture?

Lumbar puncture (LP) is a procedure involving the use of a needle inserted into the lower part of the spinal canal. The aim of the procedure is to withdraw a small sample of cerebrospinal fluid (CSF). CSF is the fluid that bathes and protects the brain and spinal cord.

Why is the LP performed?

This fluid is analysed in the laboratory and will give your doctor useful information to help diagnose and treat your condition. The test is used to aid in the diagnosis of many different neurological conditions affecting the nervous system. Sometimes the cells and chemicals inside the CSF can help your doctor understand which disease or condition is causing your problems. Sometimes, your problems may be helped by draining away some fluid, if the pressure inside the brain is raised.

Your doctor should have discussed with you the reasons for the lumbar puncture. The procedure will be fully explained to you and you will be asked give your written consent before the lumbar puncture is performed. Please read the leaflet carefully. The person performing the LP will also be happy to answer any questions you have that are beyond the scope of this leaflet.

How is the LP performed?

A trained and experienced doctor or advanced nurse practitioner will be performing your lumbar puncture. You will be asked to lie on a couch, on your side with both legs tucked up towards your chest with the lower part of your back exposed.

Curling into this position allows the vertebrae (bones in your spine) to separate out, allowing better access. An ultrasound machine might be used to identify the landmarks.

A local anaesthetic is then injected under the skin with a very fine needle, this usually stings for a second or two before the area becomes numb. You may feel a sensation of pushing or pressure as the needle is inserted.

The needle is inserted into the spinal canal, below the end of the spinal cord. This does not damage the spinal cord. You may feel some discomfort but it is important to keep still. The person performing the procedure will check on you throughout the procedure and if you experience any discomfort in your back or radiating down your leg (as some patients may) you should inform them. This does not necessarily mean anything is wrong.

Once the needle has entered the correct space, the pressure will be measured and samples will be collected. There will only be a small amount of CSF taken.

It is not always easy to locate this site and therefore if this happens, the person performing this procedure may call a senior doctor to assist. If the LP is unsuccessful, you may be called to have the procedure under x-ray guidance.

The needle is then removed and the puncture site is covered with a small plaster. This plaster should remain in place for 24 hours. A blood sample may need to be taken to help with the diagnosis. The procedure usually takes about 25 minutes to perform but you should allow up to one hour.

What will I need to do after the LP?

You will have the opportunity to ask the doctor and advanced nurse practitioner any questions before and after the LP.

You should not drive home, so it may be useful to arrange someone to bring you in/collect you following the procedure. The appointment will be offered to you as a day case procedure.

You will gradually be able to sit up and are free to leave when you are feeling well. You should make sure that you drink plenty of fluids over the next 24 hours; this will help your body naturally replace any CSF that has been taken away. Avoid any strenuous activity for the first 24 hours. You can then return to all your usual activities such as work and driving, as soon as you feel well enough.

You are able to eat and drink as normal prior to and following the LP.

Possible side effects

Headache

The most common side effect is headaches which you may experience shortly after the procedure. You may find this worse when standing up, so lying flat with your legs elevated might relieve this. Drinking plenty of fluids and taking simple pain relief such as Paracetamol, will help. You should always follow your pharmacist or doctor's advice when taking tablets. Headaches most commonly settle after a few days but if your symptoms appear to be persistent and severe, then it may be necessary to seek advice from your GP or the advanced nurse practitioner.

Backache

Sometimes patients experience backache from the site. This is usually mild and settles after a few days. Simple pain relief may be helpful. Occasionally people notice that the puncture site oozes a little blood or CSF. This should stop quickly within the next 24 hours and the plaster should be left intact.

Infection

In extremely rare cases, an infection can happen following an LP and this can be serious. Whenever a needle has punctured the skin there is a low risk of infection being introduced. This risk is minimised by cleaning the area before the procedure and by good hygiene practices. If you do become feverish following an LP, then you should seek emergency medical advice from your GP or your local Accident & Emergency department, as appropriate.

The doctor or the advanced nurse practitioner will explain to you the risks and benefits of this procedure and this will only be carried out in your consultant's best opinion. If you have any concerns regarding how you will feel following the procedure then you should always discuss these with the doctor or advanced nurse practitioner.

If you do have any concerns once you have been discharged home, please contact your GP in the first instance. If you do need to speak to the hospital staff, then please contact the advanced nurse practitioner.

Medications for review prior to LP

Please advise us before you come in, if you are taking any drug which alters the way your blood clots (including warfarin, aspirin, clopidogrel, dabigatran, rivaroxiban, apixaban or any other anti-coagulant drug). If you are not sure, please inform your consultant via the secretary or the advanced nurse practitioner.

Your medications should be discussed at your clinic appointment but any concerns please contact your consultant via the secretary or the advanced nurse practitioner. It would be helpful to bring a list of your medications with you to the appointment.

Never stop taking Warfarin or Aspirin unless you have been told to do so by your doctor or the advanced nurse practitioner.

What if I decide not to have the LP?

There is no alternative test which provides this type of information to assist the doctor in diagnosis. Without this procedure, your doctor may find it more difficult to diagnose and treat your condition. However, it is completely your decision whether you want to go ahead with the LP. If you decide that you do not wish to have the LP, then please inform the advanced nurse practitioner or your consultant, via the secretary.

Pre-admission requirements

You will need routine blood tests completed before you have your LP. You will normally have this when you have an appointment with your consultant, but you may be sent an appointment to attend the hospital at a later date. It is important to attend this appointment, if you are not able to make this appointment, the please contact the Neurosciences Administrator.

For more information

If you require any further information then please contact your GP or the advanced nurse practitioner.

Our contact details can be found on the back page of this leaflet.

**PATIENT
APPROVED** 

How to contact us:



**Ibrahim Abumatar
Neurology Nurse Practitioner**

0117 414 7533

**Mon–Fri, 8:30am – 4:30pm
24 hour answering machine available**



www.nbt.nhs.uk/neurology

If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

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