

Lumbar Puncture

What is a lumbar puncture?

A lumbar puncture is a commonly performed medical procedure in hospitals. It is done to obtain a sample of cerebrospinal fluid (CSF) for diagnostic tests.

CSF is the fluid that surrounds the brain and spinal cord. It is in the shaded area on the diagram of the lower part of the spine.

Why are they done?

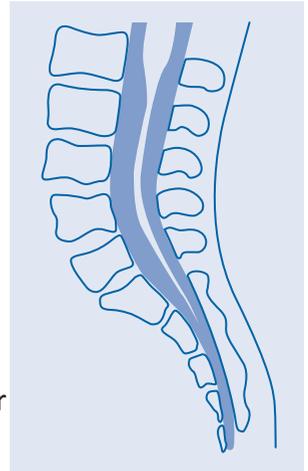
In children, the most common reason that a lumbar puncture might be needed is when meningitis is suspected.

This is an infection of the tissue around the brain. Analysis of CSF can help to confirm this diagnosis, as well as to establish the cause, and guide medical therapy.

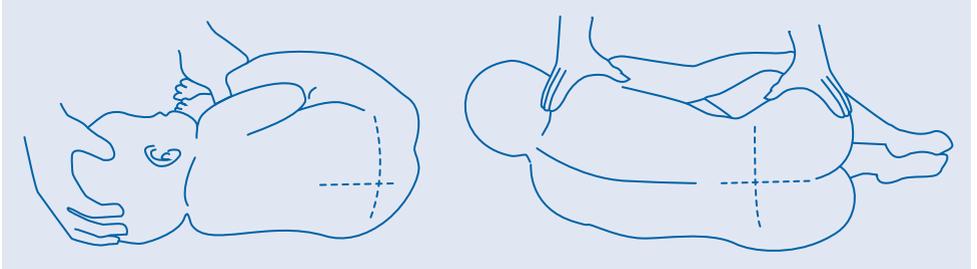
Another common reason that your child might need a lumbar puncture is encephalitis, which is an infection of the brain itself. LP can also measure or reduce the pressure of the CSF in the brain and spine.

What does the procedure involve?

- A lumbar puncture is usually done on a ward. You will be able to accompany your child if you wish. Sometimes sedation may be required. Otherwise, there is no preparation necessary.
- Usually the child will be positioned in something like a foetal position—on their side on a bed, with knees drawn up to their chest. See the drawings below.
- An area of skin over the lower back will be first cleaned then numbed with injections of a local anaesthetic. This makes the procedure far more comfortable.



- A needle is inserted between two of the spine bones until it reaches the CSF. Sometimes the pressure of it will be measured. CSF will be collected in a series of bottles.
- The needle will be removed and a dressing applied. The CSF will be sent to the laboratory for analysis.



What are the risks of it?

In the hands of trained professionals, a lumbar puncture is a straightforward procedure with only small risks to the patient.

Aside from failure to extract CSF, and a possible need for repeat attempts, the only commonly experienced problem from a lumbar puncture is a headache. If this occurs, it tends to only last for one or two days.

What should be done afterwards?

It is wise for a child to remain laid flat for 30 minutes after the procedure. They should be encouraged, when they can, to eat and drink as normal and particularly to get a good fluid intake for several days.

You should remove the dressing after a day, then keep an eye on the injection site.

If you start to see any swelling, blood or clear fluid inform the doctor in the ward, or your GP if you have been discharged. Also inform them if your child starts to become confused, sweaty or feverish, although this is unlikely.

If your child has a headache, simple painkillers like paracetamol can be given. If the headache becomes unmanageable, again please inform a doctor.

When is a LP not suitable for my child?

There are few circumstances where a lumbar puncture absolutely cannot be performed but you should inform your doctor if your child has any medical conditions, if they are on any regular medications (particularly blood thinners or antiplatelets), or if they have any current symptoms like back pain or a headache.

Key points

- Lumbar puncture is a procedure where a doctor takes a small amount of fluid from inside a child's spine.
- In several conditions, particularly meningitis, lumbar puncture is an invaluable investigation.
- It is straightforward and safe. The needle does not go near the spinal cord.

Patient Advice and Liaison Service

The team are available to help with any concerns, complaints or questions you may have about your experience at the Trust. Their office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email.

The contact details are:

Telephone: 01302 642764 or 0800 028 8059

Email: dbth.pals.dbh@nhs.net