

Lumbar puncture

Information for patients, parents and guardians

A lumbar puncture is a medical procedure carried out to obtain a sample of cerebrospinal fluid (CSF). This fluid covers the brain and spinal cord.

A special needle goes through the skin in the lower back into the spine. The CSF comes out through the needle and is collected and sent to the laboratory.

The CSF is in direct contact with the brain, so doing a lumbar puncture can give information about what is happening within the brain.

A lumbar puncture is usually carried out for one of the following reasons:

- 1) to detect possible infection in the CSF
- 2) to measure the pressure in the CSF
- 3) to measure the level of chemicals in the CSF

The doctor looking after your child will explain the exact reason your child is having a lumbar puncture.

During the procedure

A lumbar puncture can be carried out under local anaesthetic, but it's often carried out under general anaesthetic as it can be uncomfortable and difficult to stay still in the required position.

Before your child goes to theatre the surgeon will discuss the procedure with you and you will need to sign a consent form.

Your child will not be allowed to eat and drink anything before going for surgery. They must not have any food or milk for six hours before the operation. They can drink clear fluids up to two hours before the operation.

- Your child will be positioned on their side and the doctor will feel their lower back and locate the correct space between the vertebrae (bones of the back).
- The doctor will wash the skin around this area and cover your child's back with a sterile towel.
- The needle is inserted into the space between the vertebrae. The needle is then removed, leaving a very small hollow tube in place. The CSF can then be collected in a sterile container and sent to the laboratory. The pressure can also be measured by connecting a manometer to the tube.
- The tube is then removed and a plaster applied.

Risks

It is unusual for anything to go wrong, but occasionally one of the following may occur:

- It may be difficult to locate where the needle should be inserted. Another doctor may be called to help, but in some cases the procedure has to be stopped. This is unlikely to happen if done under general anaesthetic.
- If a little bleeding occurs when the lumbar puncture is done, some of the blood may mix with CSF which may affect the results of the test.
- A little of the CSF may leak out under the skin, causing some swelling in the lower back. This is not dangerous and will resolve on its own. Lying flat after the procedure may help prevent a leak.

After the lumbar puncture

Your child may develop a headache due to a reduction in pressure around the brain after the removal of CSF. They will be encouraged to drink plenty of fluids and lie flat for a few hours to try to prevent this occurring. If a headache occurs this will normally settle down in 24 to 48 hours. Paracetamol can be given.

The plaster covering the site can be removed after 24 hours.

The results will be given to you by the doctor when they are available. Some results, such as pressure measurements and white cell count, will be available quickly. Other results will take longer due to the time needed for analysis in the laboratory.

The length of time a child needs to stay in hospital after the procedure varies from child to child, depending on the reason for the lumbar puncture.

Back at home

There aren't any long term effects of having a lumbar puncture, but if you have any concerns please contact the ward on 023 8120 6692.

We advise that your child doesn't take part in any sports or PE for a week after the test.

Give paracetamol for headaches if required, following the instructions on the bottle or packet. If headache persists call your GP or contact us on the ward.

This leaflet is intended for general information only. For individual advice please contact your doctor.

If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone **023 8120 4688** for help.

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