



What is a Lumbar Puncture? Information for Parents

Your doctor has explained that your child needs a lumbar puncture. This is the test for meningitis and involves taking a small sample of fluid from the spine. A small needle (similar to an epidural) is inserted into the spaces between the vertebra (small bones) in the back, and a few drops of fluid are dripped out and then sent to be examined under the microscope. Some anaesthetic cream (Emla) will be used over the area prior to inserting the needle.

Is the lumbar puncture safe?

A lumbar puncture is safe, as long as the doctors and nurses carrying it out follow the correct procedures. These procedures include checking that there are no contraindications (such as a sudden rise in pressure in the brain or an abnormality in the way in which blood clots). The doctors and nurses will take precautions to prevent any infection entering the body during the lumbar puncture.

The spinal cord cannot be injured by a lumbar puncture that is correctly carried out, as the needle enters the spine below the lower end of the spinal cord. Your doctor will examine your child very carefully for signs of raised pressure. If the pressure inside the brain is high, there is a small risk of herniation (squeezing) of the brain through the base of the skull. (Known as coning), this can occur with meningitis even if a lumbar puncture is not performed. The procedure will not be performed if there are any concerns. Despite these risks, the procedure is really very safe and without it we would not know if your child had meningitis or not.

Before the procedure the doctor will explain what will happen, discuss the side effects and answer any questions you may have. The doctor will also ask you to sign a consent form to confirm you understand and agree to the procedure.

Are there any side effects of a lumbar puncture?

- A headache is common, and treated with painkillers and lying flat.
- Local infection around the site of the needle is very rare.
- Systemic infection from the needle is very rare.
- Insertion Dermoid cyst – a type of skin cyst (extremely rare).

What happens during the lumbar puncture?

You should be able to stay with your child to comfort him or her. Some children require sedation for the procedure as it can be uncomfortable and it is important to lie still. Your child will be asked to lie on the bed on his or her side and to curl up into a ball. The nurse will help the child to keep in the correct position. The doctor will feel your child's lower back and locate the correct space between the vertebrae (the bones of the spine). Babies may get upset and cry a lot as they need to be held still during the procedure.

The doctor will then wash the skin around this area and cover the surrounding parts of the back with a sterile towel. The doctor will insert a needle into the space between the vertebrae (spine). The Cerebro-spinal fluid (CSF) will be collected into special containers and sent to the laboratories to be examined.

What can go wrong?

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

- It may not be possible to get the child into the correct position for the lumbar puncture, because they are too restless or upset. If this is the case, the procedure may have to be postponed.
- Sometimes it is not easy for the doctor to locate the place where the needle should be inserted. Another doctor may be called to assist, but in some cases the procedure has to be stopped. The doctors will discuss with you when and if the lumbar puncture should be repeated.
- If a little bleeding occurs when the lumbar puncture is done, some of the blood may become mixed with the CSF, affecting the results of the test.

What happens after the lumbar puncture?

A plaster is placed over the site and can be removed in 24 hours. Your child is advised to lie flat for an hour, and may eat and drink as usual.

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