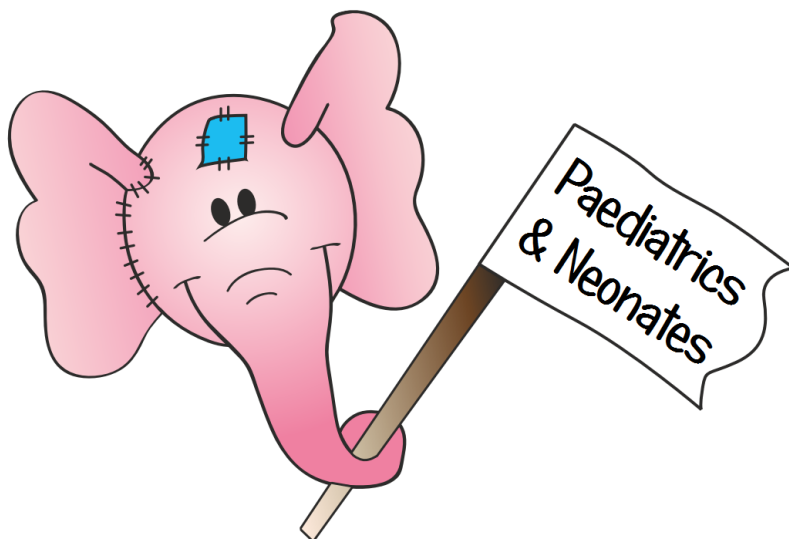


# My child is having a lumbar puncture

## Children's Ward

## Patient Information Leaflet



### Introduction

This leaflet is for parents whose child needs to have a lumbar puncture. It explains about:

- the process of having a lumbar puncture
- the possible complications
- the aftercare your child will receive

## What is a lumbar puncture?

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

## Why is my child having a lumbar puncture?

A lumbar puncture looks for evidence of conditions that affect the brain, spinal cord or other parts of the nervous system. It is usually carried out to:

- Diagnose suspected infections in the CSF such as meningitis. This is an infection of the layers surrounding the brain and spinal cord.
- Record pressure in the CSF.
- Measure certain chemicals in the CSF.

As CSF comes into contact with the brain, it can give information about how certain medical conditions are affecting the brain.

## How is a lumbar puncture carried out?

A special, hollow needle is used to drain a few drops of CSF from between the vertebrae (the bones of the spine). It is taken from the bottom of the spine as this is the easiest and safest place to take out the CSF (see figure 1). The CSF is sent to the hospital laboratory to analyse.



Picture courtesy of Great Ormond Street Hospital

Figure 1 shows where your child's CSF will be taken from and the position your child will need to be in to have a lumbar puncture.

A lumbar puncture can be distressing for your child and so you can stay with them during the procedure, if you want. Sometimes older children need to have their lumbar puncture under general anaesthetic in theatre. If this is the case, you would not be able to go with your child into the theatre.

## **Are there any risks?**

A lumbar puncture is usually safe and the risk of serious complications is low. The doctors and nurses carrying it out follow strict procedures. They will check your child's health and medical history to make sure they can have the procedure safely. They will also take precautions to prevent any infection entering the body during the lumbar puncture.

The spinal cord cannot be damaged by a lumbar puncture that is correctly carried out as the needle goes into the spine below the lower end of the spinal cord.

The body can replace the small amount of fluid that is removed very quickly (in less than two days).

After a lumbar puncture, a little fluid may leak out and collect under the skin. You may be able to see some swelling in your child's lower back where the needle went in. This is not dangerous and will go away without any treatment. We encourage children to lie flat to help stop a leak from developing.

### **Side effects of the sedation**

Modern sedation medicines are safe and complications are rare.

For a child in good health having a minor test or treatment, it is possible that they may experience a headache, feel dizzy or be sick (this happens to about one in 10 people). Sickness only lasts a short time and we can give your child medicine to help with this.

### **Side effects of general anaesthetic**

Modern anaesthetics are very safe. Most children recover quickly and are soon back to normal after their anaesthetic.

As with sedation, there can be side effects which are usually minor and typically only last a short period of time.

The most common side effects include a headache, sore throat, sickness or dizziness (about one in 10 people may experience these). Sometimes the child can be a little upset or agitated on waking but they usually get over this quickly.

## **What happens before the lumbar puncture?**

This will depend on whether it is planned in advance or whether it is carried out in an emergency.

## **Planned lumbar puncture**

You will be sent a letter with a date for the lumbar puncture. This letter will give you information about how to prepare your child for the test. This may include information on whether your child should eat or drink before the test. It is important to follow these instructions, otherwise your child's lumbar puncture may have to be delayed or even cancelled.

On the day of the procedure, the doctor will explain the procedure in detail and discuss any worries you may have. They will then ask you to give your written consent for the procedure.

Depending on your child's age, they will probably be given sedation to make them sleepy. A local anaesthetic cream will be put on your child's back to numb the area. In a few cases only, a general anaesthetic is used.

## **Emergency lumbar puncture**

As this is an emergency situation, your child will not need to be starved. The decision to undertake a lumbar puncture may happen fairly quickly as sometimes your child cannot be given treatment until the lumbar puncture has been performed as it may cause an error in the results.

If your child is under four months old, they will be given sugar solution called sucrose about two minutes before the lumbar puncture to reduce their stress.

## **What happens during the lumbar puncture?**

A lumbar puncture is usually carried out on the ward so you should be able to stay with your child to comfort them. For planned lumbar punctures, most children have sedation for the procedure. This helps them relax and keep them calm as it is important that they lie still.

However, if your child is having an emergency lumbar puncture this may not be possible.

Your child will need to lie on the bed on their side and to curl up into a ball. The nurse will help to keep or hold your child 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).

The doctor will then wash the skin around this area and cover the other parts of your child's back with a sterile towel. They will insert a needle and collect the CSF into special containers. These will be sent to the laboratories to be examined.

In some cases, the CSF pressure will also be measured. If you wish to stay with your child, the nurse will tell you where you are allowed to touch during the procedure as some areas need to be sterile.

## What if it is unsuccessful?

Lumbar punctures are usually successful but occasionally:

- It may not be possible to get your 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 or carried out with a general anaesthetic (if it is safe to do so).
- Sometimes it is not easy for the doctor to find the exact place where the needle should be inserted. They may call another doctor to help 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. Please note that sometimes more than one attempt is needed.
- If a little bleeding occurs when the lumbar puncture is carried out, some of the blood may become mixed with the CSF. This can affect the results of the test.

## What happens after the lumbar puncture?

The doctor will use a plaster to cover the site where the needle entered the skin. We will encourage your child to lie flat for about an hour afterwards. When they are fully awake, you should encourage them have a drink.

Some children develop a headache after a lumbar puncture. This is because after the procedure, the pressure reduces slightly around the brain. The headache usually settles down in 24 to 48 hours but your child can be given paracetamol, if necessary.

Some children are sick after a lumbar puncture. If this happens, they should rest in bed and have regular sips of fluid. If the sickness is severe, please seek medical advice from the Children's Ward.

If your child has had a planned lumbar puncture, carried out using either a general anaesthetic or sedation, they will need to be observed by the nursing team on the Children's Ward for at least two hours. Once they are fully awake, can eat and drink and feel well enough, they can go home.

For emergency lumbar punctures completed without sedation, the nursing team will observe your child and give them any aftercare they need.

## What happens when we get home?

This information is for planned lumbar punctures:

- If your child is in pain at home, give them paracetamol (please read the label on the container). If the pain persists or becomes worse, please contact your GP.
- Please leave the plaster covering the lumbar puncture site for 24 hours and then you can remove it.
- Keep an eye on the lumbar puncture site. If the site:
  - continues to swell
  - you see any clear fluid or blood
  - it looks red and swollen

make sure your child lies flat and contact your GP.

It is fine for your child to go to school the day after the procedure. However, we advise that they do not take part in any sports or PE for a week after the test.

(If your child is at hospital and has had an emergency lumbar puncture, the nurses looking after them will provide the above care.)

## When will my child get their results?

The CSF samples are analysed in different laboratories. Some of the tests are very quick and results are ready within a few hours. However, others are much more specialised and the results take longer to come back.

If your child has had a planned lumbar puncture, the results of these tests will be available at your child's next outpatient appointment. If your child is at hospital and has had an emergency lumbar puncture, you will be given the results as soon as we receive them.

If you have any questions, please contact:

Children's Ward on 01384 244271

or alternatively via the hospital switchboard on  
01384 456111 ext 2271

Ask to speak to one of the nurses on the ward from  
which your child was discharged or the doctor-on-call.

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 0730510**

ਜੇਕਰ ਇਹ ਲੀਫਲੈੱਟ (ਛੋਟਾ ਇਸਤਿਹਾਰ) ਤੁਸੀਂ ਆਪਣੀ ਭਾਸ਼ਾ (ਪੰਜਾਬੀ) ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਕ੍ਰਿਪਾ ਕਰ ਕੇ ਪੇਸ਼ੈਂਟ ਇੰਫਰਮੇਸ਼ਨ ਕੋ-ਆਰਡੀਨੇਟਰ ਨਾਲ **0800 0730510** ਟੈਲੀਫੋਨ ਨੰਬਰ ਤੇ ਸੰਪਰਕ ਕਰੋ।

यदि आपको यह दस्तावेज़ अपनी भाषा में चाहिये तो पेशन्ट इनफरमेशन को-आरडीनेटर को टैलीਫ਼ोन ਨੰਬਰ **0800 0730510** पर फ़ोन करें।

જો તમને આ પત્રિકા તમારી પોતાની ભાષા (ગુજરાતી)માં જોઈતી હોય, તો કૃપા કરીને પેશન્ટ ઇન્ફોર્મેશન કો-ઓર્ડિનેટરનો **0800 0730510** પર સંપર્ક કરો.

আপনি যদি এই প্রচারপত্রটি আপনার নিজের ভাষায় পেতে চান, তাহলে দয়া করে পেশেন্ট ইনফরমেশন কো-অর্ডিনেটরের সাথে **0800 0730510** এই নম্বরে যোগাযোগ করুন।

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**0800 0730510** على التالفون Information Co-ordinator

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