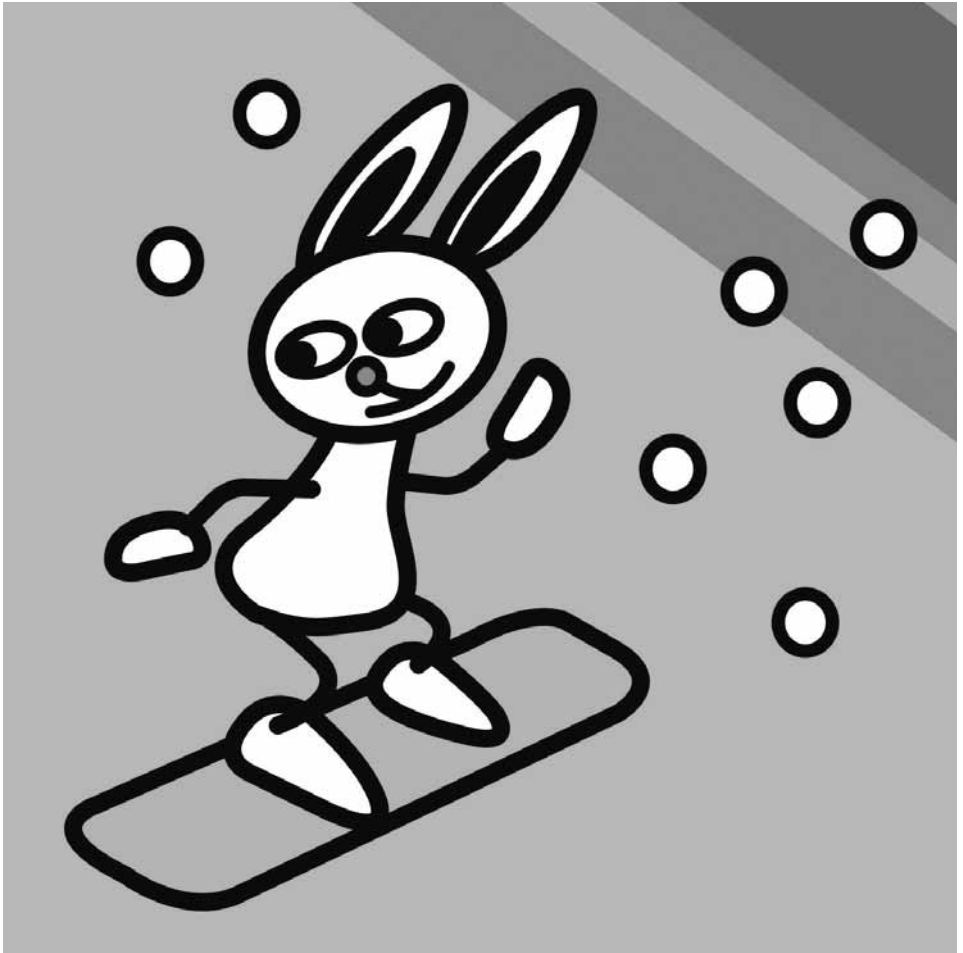


Children's Hospital

Lumbar Puncture

Information for parents and patients



This leaflet explains what is involved when your child needs a lumbar puncture. If you have any questions after reading it, please do not hesitate to ask one of the doctors or nurses.

What is a lumbar puncture?

A lumbar puncture is a procedure which is carried out to obtain a sample of cerebrospinal fluid (CSF) for testing.

CSF covers the brain and spinal cord. A sample is obtained by inserting a special hollow needle into the lower part of the back and into the space around the spinal cord. (This part of the spine is the easiest and safest area to use.) A small amount of CSF is collected and sent to the laboratory for testing. Lumbar punctures are often done in children.

Why does my child need a lumbar puncture?

A lumbar puncture is commonly carried out for one (or more) of these reasons:

- To detect possible infection in the CSF (meningitis or encephalitis)
- To measure the pressure in the CSF
- To measure the level of certain chemicals in the CSF
- To reduce the pressure in the CSF

The doctor looking after your child will talk to you about the exact reasons for your child having a lumbar puncture.

Is a lumbar puncture dangerous?

A lumbar puncture is not dangerous if the nurses and doctors doing it follow the right procedures. These procedures include checking that there are no reasons to avoid a lumbar puncture (for example, increased pressure in the brain or abnormal blood clotting). The nurses and doctors will take precautions to make sure that no infection enters the body during the lumbar puncture.

What happens before the lumbar puncture?

In an emergency situation:

This is usually when the lumbar puncture is being done to exclude meningitis or encephalitis. Local anaesthetic cream may be used to numb the area of skin where the needle will be inserted. No sedation or anaesthesia will be used as it is important not to alter the child's level of consciousness or breathing. The doctor will ask for your verbal consent in this case.

Planned, non-emergency procedure:

In this case your child should not eat and drink before the procedure. The doctor or nurse will talk to you about how long your child needs to fast.

The doctor will explain the procedure in detail and talk to you about any worries you may have. The doctor will ask for your written consent for the procedure to be carried out.

Depending on your child's age and the medical situation, s/he may be given some sedative medicine on the ward to make him/her sleepy. A local anaesthetic cream is used to numb the area of skin where the needle will be inserted. In rare cases, a general anaesthetic may be needed.

What happens during the lumbar puncture?

A lumbar puncture is usually carried out on the ward. When everything is ready, and your child is asleep if sedation or anaesthetic is used, your child will be positioned on their side on the bed, with their legs curled up and their knees under their chin. The nurse will hold her/him still in this position.

The skin is cleaned and the surrounding area covered with a sterile towel. A local anaesthetic cream is used to numb the area. The doctor finds the correct space between two vertebrae (bones of the spine) and inserts the needle into the space around the spinal cord. This does not hurt if local anaesthetic cream is used; children who are not sedated will notice a feeling of 'pushing' at this point, but the anaesthetic cream will take away the feeling of pain. The CSF will drip out and be collected in sterile containers and sent to the laboratories to be examined. The needle is removed and a plaster is put over the needle site.

What happens afterwards?

Your child will be encouraged to lie flat for an hour or so afterwards. Once your child is fully awake they should be encouraged to drink. If the lumbar puncture is a planned procedure, you may be discharged later the same day.

The samples are analysed in the laboratories. The results can take different lengths of time to come back – depending on the nature of the test. If this is a planned, outpatient procedure, we will talk to you about your follow-up appointment.

What are the risks?

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

- There is a risk of infection at the site of the procedure.
- It may not be possible to get the child into the right position, due to fear or restlessness. In this case the child may need sedation or a general anaesthetic, if the situation allows for this.
- Sometimes it is not easy for the doctor to find the area where the needle should be inserted, and another doctor may be called to assist.
- If a little bleeding occurs when the lumbar puncture is done, some blood may mix with the CSF. This affects the results of the test but does not cause any problems to your child. In this case, the doctor would have to consider the reason for doing the test; it would usually not be repeated.
- After the test a little fluid may leak out and collect under the skin. You may notice a small swelling where the lumbar puncture was done. This is not dangerous and will get better by itself. Lying the child flat may help to prevent this from happening.
- Some children develop a headache after a lumbar puncture. This is due to the slight reduction in pressure around the brain after the procedure. It usually gets better on its own in 24 - 48 hours. Paracetamol may help. Some children may need to lie down for longer.

When you get home

If you notice any of the following:

- Unexplained fever
- Tender red swelling at the site
- Clear fluid or blood leaking from the site

make sure your child lies flat at this time and call your GP.

If your child is in pain at home, give paracetamol according to the instructions on the bottle. You can remove the plaster after 24 hours. It is fine for your child to go to school the day after the lumbar puncture. They should not take part in sports or PE for a week after the test.

Contacts and telephone numbers

If you have any questions or concerns, please contact us.

Your named nurse is

Children's Day Care Ward: (01865) 234148

Drayson Ward 01865 231237

Neurosciences & Specialist
Surgery Ward (01865) 231254

John Radcliffe Switchboard: (01865) 741166

Further information

You may find the information on the following website helpful:

www.ich.ucl.ac.uk/factsheets/families
(Great Ormond Street Hospital)

With thanks - Paediatric Neuroscience Benchmarking Group
GOS factsheet www.ich.ucl.ac.uk
Paediatric doctors at The Children's Hospital, Oxford

*We hope that this information is useful to you and
would welcome any comments about the care or
information that you have received.*

If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473** or email **PALSJR@orh.nhs.uk**

Jackie Campbell, Nurse Practitioner
Children's Day Care Ward
Version 2, January 2011
Review date, January 2014
Oxford Radcliffe Hospital NHS Trust
Oxford OX3 9DU
www.oxfordradcliffe.nhs.uk/patientinformation