

Patient Information

## Radiology

# X-ray Guided Lumbar puncture

You have been advised by your hospital consultant to have a lumbar puncture, and you have been referred to Radiology department to have this procedure. The consultant or a member of their team who referred you should have discussed the reasons for this procedure with you and consented you for it before you attend for your procedure.

X-Ray guidance is usually requested to help with navigating the lumbar puncture needle to the correct location, particularly if previous attempts without x-ray guidance have been unsuccessful.

This leaflet may not answer all your questions, so if you have any queries or concerns, please do not hesitate to call the telephone number on your appointment letter. If you feel unhappy with any part of your care, please ask to speak to a senior member of staff.

Please contact the X-ray department if your weight is equal to or more than 205 kg (32 stone) as you may require an alternative examination.

## Referral and consent

If you are having the lumbar puncture as a planned procedure, then you should have plenty of time to discuss the situation with your consultant and the radiologist (a specialised X-ray doctor) who will be performing the procedure.

If you need this procedure done as an emergency, there may be less time for discussion, **but you should have had a full explanation before you sign the consent form.**



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After discussion with your hospital doctor or radiologist, if you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms no longer mean this procedure is necessary, then they will explain this to you. They will communicate with the referring clinician and ask that you return to your referring clinician or ward for review. At all times, the radiologist and referring clinician will be acting in your best interests.

### Points to remember.

- Please bring with you any sprays or inhalers that you are taking with you to your appointment.
- If you are taking **aspirin, warfarin, or any other blood thinning medicines**, please call the telephone number on your appointment letter as soon as possible and ask that the radiologist (X-ray doctor) who will be performing your examination is notified. They will need to discuss this with your hospital consultant before your appointment can be confirmed.
- If you are on any other medication from your doctor, please continue to take it as normal.
- Please leave any valuable possessions at home.
- You will be admitted to a ward prior to the examination. You will return to the ward for up to 4 hours for post procedure care. It is not expected that you will stay overnight.
- Although the procedure will be performed in an X-ray examination room, it is not always necessary to use X-ray guidance for this procedure to succeed.

### What is a lumbar puncture?

A lumbar puncture (also known as a spinal tap) is a procedure to test a sample of fluid from the spinal canal. This fluid is called cerebrospinal fluid (CSF), and it surrounds your brain and your spinal cord. CSF helps to support and protect the brain and spinal cord and contains proteins and sugars.

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A lumbar puncture is often used to diagnose meningitis, as well as some other conditions of the brain and spinal cord. The examination also allows the pressure within the spinal canal to be measured and regulated.

A lumbar puncture is performed by inserting a hollow needle into the lower part of the spinal canal to get a sample of CSF. This is sent to the laboratories for analysis. A measurement instrument (manometer) may be connected to the spinal needle to measure the CSF pressure.

The examination will be performed by a radiologist who may be assisted by a radiographer and a radiology nurse. It is not always easy to predict how complex or how straightforward the procedure will be and thus how long it could take. As a guide, expect to be in the Radiology department for about 30 minutes.

## Preparation

- You will have had some special blood tests to check your blood clotting ability.
- You may eat and drink normally.
- **You will need someone to drive you home after the examination. You should not drive for 24 hours after the examination.**
- If you have a high fever and are feeling unwell such as having the flu, the procedure may need to be postponed. However, if you have a common cold this will not affect the procedure.
- You will receive a letter giving details of the ward to which you will be admitted to before this examination.

## What will happen when I arrive?

- Please go to the ward as instructed in your appointment letter.
- You will be asked to change into a hospital gown.
- The porters will collect you and take you to the X-ray department, on your bed, in time for your procedure.

### **During your examination**

You will be taken into the X-ray room after the examination has been explained to you by the consultant radiologist (X-ray doctor). You can also ask any further questions that you may have.

You will be asked to confirm consent to the procedure before the procedure can begin.

### **Lumbar puncture:**

- The radiologist may mark the area to be investigated on your back with a marker pen.
- You will be asked to either lie down on your left side on the X-ray table or sit on the edge of the X-ray table with your feet on a step and lean forward. These positions open the spaces between the vertebrae (bones) in your spine to allow a needle to be inserted into your spinal canal. This is called a lumbar puncture.
- The x-ray machine will rotate around you and take X-rays to navigate the needle to the correct location.
- This is a sterile procedure, and the radiologist will wear sterile gloves. Your skin will be cleaned with cold antiseptic liquid and sterile towels will be placed over you.
- Local anaesthetic will be injected into the skin to numb the area before the spinal needle is inserted.
- A small amount of spinal fluid will be collected through the spinal needle and sent for analysis.
- If the CSF pressure is too high, it may be reduced by 'tapping off' more spinal fluid until the pressure reading is within normal parameters.

### **Risks of the procedure**

There is a very small risk of an infection being introduced during this procedure. There is a small risk of bleeding and nerve root irritation from having a needle inserted into your spinal canal.

A headache for several hours following the procedure is common, particularly if the CSF pressure has been reduced. The headache should clear within 48 hours. Rarely, a headache may persist longer than this, which could be due to a leak of CSF from the lumbar puncture site.

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X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives. This comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take precautions to minimise the number of X-rays you receive.

## Safety

**Patients aged 12 to 55 years, could you be pregnant?** The risks of radiation are slightly higher for the unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.

## After your examination

- You will be taken back to the ward or remain in the day case unit where you will have 2 to 3 hours bed rest. You may be instructed to lay flat. In any event, do not bend down or lean forward during this time as this is likely to cause a headache.
- Drink plenty of fluids after the procedure to help reduce the chance of getting a headache.
- It is possible that you may still experience a headache after the procedure. If you do, it should pass after 48 hours. Oral fluids or simple pain relief such as paracetamol can be taken to help ease the pain.
- **Do not drive** for 24 hours after the procedure.
- If you have a headache that persists for more than 48 hours following the lumbar puncture or have any other problems, please contact your referring consultant team, or see your GP.

## How do I get the results?

The results will not be given to you immediately. They will be sent to the hospital consultant who referred you to us for this examination.

## Other Sources of Information:

For information about the effects of x-rays and information about radiology departments visit the NHS website: <https://www.nhs.uk/conditions/x-ray/>

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Please note that the views expressed in this website do not necessarily reflect the views of UHCW NHS Trust.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact the telephone number on your appointment letter and we will do our best to meet your needs.

The Trust operates a smoke free policy.

### Did we get it right?

We would like you to tell us what you think about Interventional Radiology services. This helps us make improvements.

Have your say. Scan the QR code or visit:

<http://ratenhs.uk/TyVIDN>

[www.uhcw.nhs.uk/contact-us](http://www.uhcw.nhs.uk/contact-us)



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