Why do I need a Lumbar Puncture?

Lumbar Punctures are performed in the Emergency Department to diagnose potentially life threatening medical conditions such as meningitis (an infection over the surface of the brain) or a subarachnoid haemorrhage (a bleed in your brain). Lumbar Punctures are also performed to check for degenerative diseases that affect the brain and spine including multiple sclerosis (a disease of the central nervous system).

Early diagnosis of these conditions is vital so that the right treatment can be started.

Your doctor will discuss with you the specific reasons why you need this test performed and how the results will help determine the treatment that you need.

What is a Lumbar Puncture?

Lumbar Puncture is also commonly called a spinal tap. It involves placing a small needle in the lower back to obtain fluid that bathes the brain and spinal cord. This fluid is called cerebral spinal fluid or CSF. The correctly placed needle enters a sac below the actual spinal cord. The lower back is generally considered the safest place to obtain this fluid for laboratory testing.

It is a very similar to the procedure that is used for women to provide pain relief while they are giving birth called a “spinal anaesthetic” or “epidural” - however in these cases, instead of removing a sample, medications are administered into the spinal fluid.

How is it performed?

The procedure can be done sitting up or lying down. The doctor will tell you which position he wants you in for this test. Your back will then be carefully cleaned with antiseptic and a drape placed over your back to keep the area sterile. It is important to be as still as you can during the procedure — let your doctor know if you cannot get into a comfortable position, or if you need to move for some reason.

There is not usually a lot of pain because a local anaesthetic is used but some patients feel a slight pressure and soreness when the needle goes in.

Your doctor will carefully place the spinal needle between the vertebrae into the space that contains the fluid and take a few mLs for testing. This is a technically difficult procedure, and more than one attempt may be required. If you have a lot of pain or anxiety, ask for something to help.

After the fluid is taken, the needle is removed and a band aid placed on the spot. You can then sit-up and move around as you like – you don’t need to stay lying down unless you wish to.
Is it painful?

Your doctor will use a very fine needle to numb the skin of your back first. You will feel a scratch and a sting as the needle goes through the surface of the skin and the local is injected. This lasts only a few seconds.

Most people do not feel any pain as such, but experience a pressure feeling, while the spinal needle is inserted. This varies a lot between patients.

If you feel a sharp sensation going down your leg, let your doctor know at the time and they will improve the position of the needle to make it more comfortable for you.

Most patients complain of lower back soreness afterwards (like a bruise) but this usually resolves on its own.

The other common side effect to occur is a headache. This may occasionally be severe, but usually settles on its own over a few days. Occasionally patients may require another procedure very similar to the Lumbar Puncture to fix the headache.

The risk of developing an infection from the procedure is rare and significantly reduced by the doctor cleaning your back carefully before the procedure.

Other complications such as nerve damage and spinal cord damage from bleeding, have usually only occurred in patients who have bleeding disorders and these complications are thankfully exceedingly rare. Please tell your doctor if you are taking any medications, especially those which may thin your blood such as Aspirin or Warfarin.

It is important to remember the reason your doctor is advising you to have a Lumbar Puncture. It is because they are worried you have a serious medical condition and it is important to diagnose accurately so that they can give you the best treatment possible.

Your doctor is there to answer any questions or concerns you may have, so just ask.

What are the risks?

Lumbar Punctures are performed very frequently in Emergency Departments and although patients can find them daunting, they are really very safe.

In the majority of cases, they are uneventful and result in no adverse outcomes.

Seeking help:

In a medical emergency go to your nearest emergency department or call 000.

Instructions: