

All about Lumbar Punctures:

In recent years the number of Parkinson's clinical trials requesting lumbar puncture procedures has increased. A lumbar puncture is a routine medical procedure where a needle is inserted into the lower part of the spine to collect samples of cerebrospinal fluid (CSF). CSF is a clear fluid that supports the brain and the spinal cord.

Not all treatments are able to cross the blood brain barrier, which protects the brain. When developing new treatments for Parkinson's, one of the first questions asked is "Does it cross the blood brain barrier?" By taking a sample of CSF we are able to understand if a drug crosses the blood brain barrier and therefore could be a potential treatment for Parkinson's.

How is a lumbar puncture carried out?

Lumbar punctures are carried out in hospital, under local anaesthetic. A hollow needle is very carefully inserted into the base of the spine and into the spinal canal, which contains the spinal cord and the nerves coming from it.

The pressure within the spinal canal is measured and a sample of CSF is slowly removed and sent for testing. It usually takes around 30-45 minutes to complete.

You will normally be lying on your side, with your legs pulled up and your chin tucked in, but sometimes the procedure is carried out while you're seated and leaning forwards.

Lumbar punctures are generally very low-risk procedures. However, they sometimes cause short-lived side effects.

Some people experience some lower back pain after a lumbar puncture. This is usually felt in and around the area where the needle was inserted, but it can also be felt in the backs of your legs. In most cases, the pain will ease after a few days and it can be treated with painkillers, such as paracetamol. If you experience back pain as a symptom of your Parkinson's please raise this with your doctor before the procedure.

A headache is a common side effect usually developing within 24 to 48 hours of the procedure. Most people describe a dull or throbbing pain at the front of their head, sometimes spreading to the neck and shoulders. The pain is usually worse while standing or sitting up and is usually relieved by lying down and can be treated with painkillers. If post-lumbar puncture headaches persist, are particularly severe, or are accompanied by sickness and vomiting, please contact your doctor.

You may experience some bruising and minor swelling in your lower back. The swelling is caused by a small amount of fluid leaking and collecting under your skin. This should go down naturally. However, do seek medical advice if the swelling continues or gets worse.

If you develop a temperature or sensitivity to bright lights, if the lumbar puncture site becomes painful and swollen, if you notice blood or clear fluid around the site, if you experience tingling and numbness in legs, hearing loss and double vision please seek medical advice.