

Lumbar Puncture Overview/FAQs

WHAT IS A LUMBAR PUNCTURE (LP)?

An LP is an outpatient procedure where a small needle is inserted between the vertebrae (bones) of the lower back at a level below the spinal cord to obtain a small amount of spinal fluid.

WHAT IS THE PURPOSE OF THE LP IN THIS STUDY?

The purpose of obtaining spinal fluid is to learn as much as possible about the proteins and other chemical changes that may occur in individuals with neurological conditions, like Parkinson's disease. Spinal fluid is useful because it bathes the brain and spinal cord, making it the best source of information about neurochemical changes that may be occurring in the brain. Scientists predict that proteins in spinal fluid could be promising in identifying biomarkers of Parkinson's. Being able to measure changes in specific proteins or neurochemicals in spinal fluid may provide a way to measure progression of Parkinson's disease or monitor whether medications are slowing progression of the disease.

IS AN LP PAINFUL?

There are two parts in the beginning of the LP procedure that may cause some discomfort. First, during the administration of an anesthetic, you may feel a few seconds of stinging or burning when it is injected. (In some centers, anesthetics may not be used for an LP). You will feel a pressure sensation when the needle is inserted, and there is usually some brief pain when the needle goes through the tissue surrounding the spinal cord. Overall, discomfort throughout the entire procedure is minimal to moderate.

WHAT ARE THE RISKS OF LP?

There is a small chance of developing a headache after the procedure. This usually gets better with rest and drinking plenty of fluids. Rarely, the headache may continue for more than 24 hours after the procedure and require additional treatment. There is no risk of paralysis.

When performed by an experienced doctor, an LP is safe and involves minimal discomfort. LPs are typically performed using a special needle designed especially for this procedure. This needle is quite small and causes less pain at the site where the needle goes in and brings less risk for headache after the LP.

WILL I GET RESULTS FROM THE SPINAL FLUID TESTING?

Spinal fluid collected during the LP will be tested using standard clinical tests. You will be notified by the principal investigator at your study site if there is any reason for concern from the results of these tests.

AS A CONTROL PARTICIPANT, WHY DO I NEED AN LP?

In addition to what we can learn from spinal fluid from PD patients, we can also learn a lot from the spinal fluid of control participants who are about the same age, and the same gender, as PD patients in the study. By comparing these samples, researchers can determine which changes are unique to Parkinson's disease and which are associated with normal aging.

