EMORY UNIVERSITY SCHOOL OF MEDICINE

Lumbar Puncture

Frequently Asked Questions

What is a lumbar puncture?

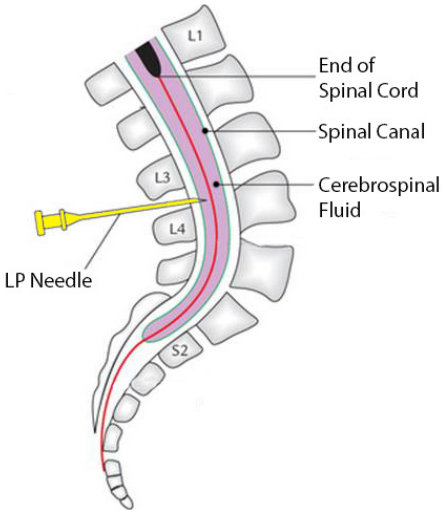
A lumbar puncture, sometimes called a spinal tap, is a procedure where we collect a sample of fluid that surrounds the brain and spinal cord by inserting a thin needle in the lower back. This fluid is known as cerebrospinal fluid.

Why is the lumbar puncture important?

Alzheimer's disease is defined by the presence of amyloid plaques and tau tangles in the brain. We can use cerebrospinal fluid collected through a lumbar puncture to measure proteins related to Alzheimer's disease, such as amyloid and tau. Because cerebrospinal fluid is in direct contact with our brain, it contains valuable information not found in blood or any other fluids.

Is there a risk of paralysis?

The procedure is done well below the spinal cord so there is no risk of paralysis. In addition, the lumbar puncture is completed by trained and experienced providers who perform this procedure on daily basis. Our providers have successfully completed over 3000 lumbar punctures.



Does the lumbar puncture hurt?

The site is numbed using a local anesthetic in preparation for the procedure. Most participants report the numbing process feels like a bee sting and slow burn before the area becomes numb. Once the area is numb, the provider will insert a small needle into the spinal canal in the lower back that may feel like pressure changes. The provider will continuously communicate with you to ensure that there is little to no pain.

It is normal for nerves to float around in your cerebrospinal fluid. Occasionally, these nerves will come in contact with the inserted needle, and this can cause a momentary sensation down your leg that does not last longer than few seconds. The sensation is often described as like hitting your "funny bone" and is completely normal.

It's important to remember that participating in this study is entirely your choice. If you become uncomfortable during your study visit or in any procedure, you may stop at any time.

How long does the procedure take?

The procedure typically takes about 30 minutes. Once the cerebrospinal fluid has been collected, the participant will lie down and rest for 20-30 minutes to allow the fluid volume to redistribute evenly around the brain and spinal cord.