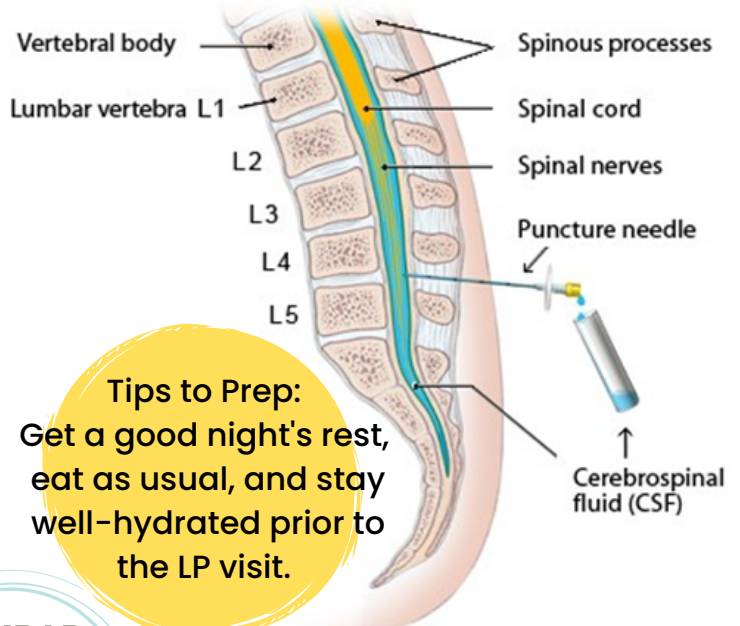


LUMBAR PUNCTURE

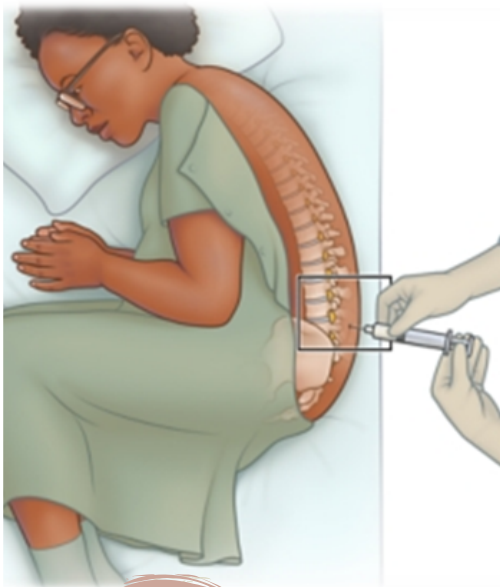
A Lumbar Puncture (LP), or Spinal Tap, is a procedure to remove a small sample (10-15mL or ~1 tablespoon) of cerebrospinal fluid (CSF) from the lower spine. CSF is the fluid that surrounds the brain and spinal cord, and it contains proteins, cells, and other substances that may be important biomarkers in ALS research. During the procedure, a needle is inserted between two lumbar vertebrae (backbones) in the lower back and into the space in the spinal canal that contains CSF.

Sometimes, people feel worried that a lumbar puncture could be risky or painful. In reality, this is a safe and common procedure to collect CSF!



LUMBAR PUNCTURE STEP BY STEP

- 1.) You will be asked to sit or lie down in a position that helps widen the spaces between the bones of the lower spine.
- 2.) The doctor will cleanse the skin on your lower back to reduce risk of infection, then use a small needle to inject a local anesthetic (such as lidocaine) to numb the site.
- 3.) The LP needle is inserted into the space containing CSF. A special atraumatic spinal needle (Sprotte) is typically used to reduce the chance of a post-puncture headache. The doctor may need to readjust the needle if CSF cannot be drawn with the first insertion.
- 4.) Spinal fluid is collected into specimen tubes for lab testing. The LP needle is removed, your back is cleaned, and a band-aid is placed over the LP site.
- 5.) For your comfort and safety, it is recommended that someone drive you to and from the LP study visit.



QUESTIONS?

Prior to enrolling in a clinical trial, your study team will discuss the LP procedure with you. Please ask your study team for clarification if you have any questions while reviewing the informed consent form.

Lumbar Puncture Information Sheet

COMMON QUESTIONS

Q: How long does a LP take?

A: The procedure typically takes 20–30 minutes, with an additional 30–60 minute rest period after the LP. The body can replenish 10–15mL of CSF in about an hour.

Q: Does it hurt? What are the risks?

A: You may experience pressure when the needle is inserted. There may be very brief leg pain if the needle touches a nerve ending that floats at the base of the spine. The needle is inserted well below the spinal cord, so there is no risk of paralysis.

Q: Why do we do LPs in ALS research?

A: Spinal fluid from LPs is critical to move science forward in ALS. Motor neurons live in the brain and spinal cord, constantly bathing in cerebrospinal fluid, so CSF is one of the most powerful ways to get direct information about the nervous system.

Q: What information do we get from CSF?

A: CSF is important to measure the effects of an investigational drug in a clinical trial. It also provides protein and other markers to predict and track disease progression, and helps identify subsets of people who best respond to a specific study drug.

AFTERCARE TO-DO'S

As you leave your study visit and head home, it is important to remember a few things to ensure your health and safety.

- Stay well-hydrated. Drink plenty of water (6 glasses of fluid in the 12 hours after your LP). This will help your body replace the fluid removed during the procedure and reduce the likelihood of getting a post-LP headache.
- Rest & Relax. Avoid strenuous physical activity for the rest of the day. Laying flat will help reduce the possibility of developing a headache.
- Continue with your usual diet.
- Several hours after the LP, you may remove the band aid and shower as you wish. Your study team can answer any questions about timing.
- If no complications occur and you are feeling well, you may return to your normal activities the next day.



SYMPTOM MANAGEMENT

Headache:

- About 30% of people experience a post-LP headache. If you notice a mild headache, hydration and lying flat can help. Drinking a beverage with caffeine (in addition to water) may also help, as well as over-the-counter Tylenol (follow dosage instructions on the bottle).
- If your headache becomes more than mild or persists longer than 24 hours, and is not relieved by the above interventions OR if you develop a fever at any time following the LP, please contact your study team right away.

Back Discomfort:

- If you experience back discomfort, try applying ice wrapped in a towel to the affected area for 20 minutes, 3–4 times over the course of the day.