Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

About Your Lumbar Puncture

This information will explain your lumbar puncture procedure at MSK.

A lumbar puncture is a procedure that's done to get a sample of cerebrospinal fluid (CSF). CSF is the fluid that surrounds your brain and spinal cord. A lumbar puncture can also be called a "spinal tap" or an "LP."

Your healthcare provider may need to take a sample of your CSF to check for problems such as:

- An infection, such as meningitis (an infection where the tissues around your brain and spinal cord swell).
- Bleeding in your brain or spinal canal.
- Cancer that has spread to the tissues around your brain or spinal cord.

Your healthcare provider may also do a lumbar puncture to put certain types of medication directly into the area surrounding your spinal cord. These medications may be:

- Anesthesia (medications that block pain)

- Cancer-fighting medications (such as chemotherapy)
- Antibiotics

Before your procedure

Tell your healthcare provider if you're:

- Allergic to iodine (an ingredient in Betadine®, an antiseptic).
- Sensitive or allergic to any adhesives such as tape.
- Taking any blood thinners. Some examples of blood thinners are aspirin, heparin, warfarin (Coumadin®), clopidogrel (Plavix®), enoxaparin (Lovenox®), and tinzaparin (Innohep®). There are others, so be sure your healthcare provider knows all the medications you're taking.
- Taking any Tyrosine Kinase Inhibitor (TKI) therapy or Vascular Endothelial Growth Factor (VEGF) inhibitors. These include bevacizumab (Avastin®), regorafenib (Stivarga®), sunitinib (Sutent®), and ramucirumab (Cyramza®).
- Feeling anxious (a strong feeling of worry or fear) about your procedure. This will give your healthcare provider enough time to order anxiety medication before your procedure.
- Taking any anxiety medication, such as lorazepam

(Ativan®) . Telling your healthcare provider about your anxiety medication may avoid delays to your procedure.

The day of your procedure

Where to go

Check your appointment reminder for information on where to go.

What to expect

For your procedure, you will either be lying on your side and hugging your legs or sitting up and leaning over a table so that your back is curved in a “C” shape. It’s very important to stay still during the procedure.

Your healthcare provider will clean the area around your lower back with a disinfecting solution. Then you’ll get an injection (shot) of local anesthesia (numbing medication) into the area so that you won’t feel any pain.

Once the area is numb, your healthcare provider will gently insert a needle between 2 of the bones in your spine (vertebrae) and into the space filled with CSF. You may feel pressure in your back while the needle is being inserted. The CSF will drip out of the needle and your healthcare provider will collect it in a small bottle. If you’ll be getting medication into your spinal canal during the procedure, this will happen after the fluid is removed.

This procedure usually takes 10 to 15 minutes. Once finished, your healthcare provider will put a bandage (Band-Aid®) on the area where the needle was inserted.

After your procedure

At the hospital

You may be asked to lie flat on your back for up to 30 minutes.

At home

You can take off your bandage the day after your procedure.

Side effects

You may get a headache after your lumbar puncture. This happens because the spot where the needle goes in doesn't always close up right away. If the hole stays open, CSF can leak out, causing a headache.

In most cases, the hole will close up on its own and the headache will go away in 1 to 2 days. You can take over-the-counter pain medication for the headache, such as acetaminophen (Tylenol®) or ibuprofen (Advil®). Lying down may also make you feel better. Caffeine can also help reduce headaches. You can try drinking 1 to 2 cups of coffee per day to help your headache.

If your headache doesn't get better within 2 to 3 days, call

your doctor. They may need to give you a treatment called a “blood patch.” This means they will take a small amount of your blood and inject it into the area where the lumbar puncture was done. The blood will fill the hole and your headache should go away.

Call your healthcare provider if you have:

- Any signs of infection at the site. These can include:
  - Redness
  - Swelling
  - Fluid leaking (discharge) at the site
  - Fever of 101° F (38.3° C) or higher
- Bleeding at the site
- Pain or numbness in your back or legs

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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