Lumbar Puncture (Spinal Tap)

A lumbar puncture, or spinal tap, is done to collect some of the fluid around the brain and spinal cord for testing. This fluid is known as cerebrospinal (sare-REE-bro-spine-al) fluid or CSF. During the lumbar puncture, a thin needle is placed into the patient’s back. The needle goes into the spinal column below the spinal cord into an area called the subarachnoid (sub-a-RACK-noid) space, see figure 1. Spinal taps are generally safe. The procedure is mildly uncomfortable.

What will happen?

Your child’s healthcare provider will usually numb (have no feeling) the skin where the needle passes through. They may use a numbing cream called EMLA®. This is usually put on the skin 1 to 2 hours before the procedure. The cream cannot be used in children under 1 month of age.

If the procedure needs to be done quickly or your child is under 1 month of age, a small needle with a type of numbing medicine will be used to numb the area. You may have it called Lidocaine®.

The lumbar puncture should not take more than 15 minutes. Your child will be asked to either sit or lie on one side. Next, your child will be asked to bring their knees to their chest and stay very still, see figure 2.

Your child may have trouble holding still or may get upset during the procedure. This can make it difficult to do the test. If we think this may happen, we will ask your permission to give your child a medicine to make them sleepy or less anxious.

You are the person who knows your child best. Please speak up and let us know if you think this would be a good thing to do.
Your child’s healthcare provider will carefully clean the lower back with a brown soap called Betadine®. This kills germs on the skin that can cause an infection. Next they will place a sterile paper cloth with a hole in the center over your child’s back. This gives the healthcare provider a clean area to work so no germs will get on the needle or the providers’ hands.

When the needle is inserted, your child may feel pressure and/or some pain. You can help your child stay calm during the lumbar puncture by telling a favorite story, counting until the procedure is over, or blowing together slowly.

When the needle enters the spinal fluid space, the fluid will slowly drip through the needle into a test tube. After your healthcare provider collects the cerebrospinal fluid, the needle is removed and a Band-Aid® is placed on your child’s back. Usually, less than one teaspoon of fluid is taken. They may need to take more if special tests need to be done. After the procedure, your healthcare provider may want your child to remain lying down for 4 to 6 hours. This helps prevent your child getting a headache.

Your child’s care provider will send the spinal fluid to the laboratory to be examined and analyzed, after which the test results will be discussed with you.

**What will my child feel?**

No procedure feels the same to every child. Below is how other children have described this procedure.

- The numbing cream feels cold and wet.
- There is a pulling sensation when the care provider removes the tape that holds the numbing cream in place.
- The brown soap (Betadine®) feels cold and wet when put on and washed off.
- The numbing medicine feels warm or may sting as it is injected.

Because numbing medicine is used first, your child should not feel the actual spinal tap needle. Your child will feel someone touching their lower back and hips. This is done to check that the needle is going into the correct place.

**Are there complications?**

Complications are rare with a spinal tap, and most last only a short time. The following can happen:

- Bleeding
- An infection where the fluid was taken out
- Pain
- Numbness in the lower back
- A tingling sensation in the legs

**Is there any medicine I might give my child after the procedure?**

You may give your child acetaminophen (Tylenol®) every 3 to 4 hours as prescribed by your child’s care provider.

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