



Procedure Information Sheet

Introduction

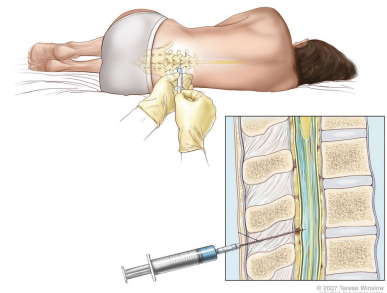
Lumbar puncture (LP) is a common diagnostic procedure to obtain a sample of fluid, named cerebrospinal fluid (CSF), from around the spinal cord for examination or to measure the pressure inside the skull. In certain situation, release of CSF is a form of treatment and helps lower the pressure inside the skull.

Indication

- The most common reason for having a LP is to see if there is any infection of the lining around the brain (meningitis) or inflammation in the brain itself (encephalitis).
- Other reasons for needing a LP include suspected bleeding inside the skull, such as subarachnoid hemorrhage or complicated diseases that involve the metabolism of the brain or the spinal cord.
- To measure CSF pressure and in certain situations to relieve pressure in the brain as a result of excessive CSF.
- To inject medication into the spinal canal, e.g. for treatment of oncology patients.

The Operation / Procedure

1. You will be instructed to lie on your side, and hug your legs; so that your back is curved in a "C" shape.
2. After sterilizing the skin at the back, the doctor will inject a local anesthetic if necessary.
3. A small needle will be inserted into the space between two backbones (the lumbar vertebrae). CSF pressure will be measured and a small amount (8 to 15ml typically) of CSF will be collected and sent for tests.¹
4. The puncture wound will be sealed with dressing. This procedure usually lasts less than 30 minutes.



Source:
<https://www.cancer.gov/publications/dictionaries/cancer-terms/def/lumbar-puncture>

Before the Operation / Procedure

1. The procedure and possible complications will be explained by the doctor.
2. A written consent must be signed prior to the procedure.
3. Please inform doctor if you are taking medication that affect blood coagulation, such as Aspirin, Plavix, Warfarin, Xarelto, Pradaxa, Eliquis, Lixiana and so on.

After the Operation / Procedure

1. You are advised to lie flat in bed, the resting hour is ordered by your doctor usually.
2. If headache occurs, inform your nurses for painkillers.
3. If you find the dressing is wet, inform your nurses. New pressure dressing will be applied.

Risk and Complication

1. Headache is relatively common and can usually be controlled by painkillers. (10% - 30%)
2. Rare problems caused by procedure can include infection, bleeding, pain or numbness at the back or legs
3. Brain herniation is very rare but life-threatening.

<p>Patient's Label Patient Name: _____ Hospital No: _____ Episode No: _____</p>



Alternative Treatment / Investigation

- Meningitis can progress rapidly and cause serious consequences such as deafness, hydrocephalus, cerebral palsy and epilepsy, and even death. Doctor has to make the correct diagnosis and start treatment promptly. LP is the safest and most effective means to make the diagnosis.
- CSF will undergo biochemical tests and be examined under the microscope. The preliminary results will be available within a few hours. The CSF will also be sent for bacterial and/ or viral culture for identification of the organism and antibiotics sensitivity test.
- As CSF circulates around the central nervous system, detailed examinations of CSF can provide direct evidence to diagnose many diseases that involve the brain.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Johnson, K.S., Sexton, D.J., Aminoff, M.J. & Wilterdink, J.L. (2021). Lumbar puncture: Technique, indications, contraindications, and complications in adults. *UpToDate*. Retrieved from https://www.uptodate.com/contents/lumbar-puncture-technique-indications-contraindications-and-complications-in-adults?search=lumbar%20puncture&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Smart patient website by Hospital Authority:Lumbar Puncture(4/2015)

Patient's Label	
Patient Name: _____	
Hospital No: _____	
Episode No: _____	

Patient's Signature: _____ Date: _____