

# Lumbar Puncture

Also known as “spinal tap” or “LP”. This procedure is done when it is necessary to collect cerebrospinal fluid from the patient.

## Indications

- Suspicion of meningitis
- To rule out subarachnoid hemorrhage.
- To detect antibodies in CNS diseases for instance multiple sclerosis.
- To detect malignant infiltrates in blood malignancies.

## Contraindications

- When the skin where the needle enters is infected.
- When the pressures between the infratentorial and supratentorial compartments are not balanced.
- Midline shift

## Procedure

The doctor will place the patient in a lateral position (left or right) with the neck bent in full flexion and knees bent in full flexion up to his/her chest, similarly to the fetal position as much as possible. A spinal needle is inserted above or below the L4 vertebra. At that level spinal cord comprises of floating filaments, the cauda equina, thus avoiding any actual puncture on the spinal cord. The needle will pass the ligamentum flavum, and penetrate the dural sac in order to reach and puncture the arachnoid, to enter the subarachnoid space, where the CSF is located.

## Links

### Related articles

- Cerebeospinal fluid

### References

### Bibliography

- MOORE, Keith L – DALLEY, Arthur F. *Clinically Oriented Anatomy*. 5. edition. Lippincott Williams & Wilkins, 2005. ISBN 0781736390.