

ICD-10-PCS: Lumbar Puncture

What is a Lumbar Puncture?

A lumbar puncture is a diagnostic and/or therapeutic procedure performed by a doctor. The procedure is performed by inserting a hollow needle into the subarachnoid space in the lumbar area (lower back) of the spinal column. The subarachnoid space is the canal in the spinal column that carries cerebrospinal fluid (CSF) between the brain and the spinal cord.

A lumbar puncture can help diagnose serious infections, such as

- Meningitis;
- Other disorders of the central nervous system, such as Guillain-Barre syndrome and multiple sclerosis;
- Cancers of the brain or spinal cord.

Sometimes doctors use lumbar puncture to inject anesthetic medications or chemotherapy drugs into the cerebrospinal fluid.

Other names for a lumbar puncture (an LP):

- Spinal tap
- Spinal puncture
- Thecal puncture (thecal sac is a membrane of dura mater that surrounds the spinal cord and the cauda equina)
- Rachiocentesis (prefix “rachio-” indicating “spine”)

Other spinal punctures or punctures to obtain cerebral spinal fluid (CSF):

- Ventricular puncture (this is a puncture into a lateral ventricle of the brain)
- Cisternal puncture (this is a cervical vertebral puncture into the cisterna at the base of the brain)

Normal results of a lumbar puncture typically range as follows:

- Pressure: 70 - 180 mm H2O
- Appearance: clear, colorless
- CSF total protein: 15 - 60 mg/100 mL
- Gamma globulin: 3 - 12% of the total protein
- CSF glucose: 50 - 80 mg/100 mL (or greater than 2/3 of blood sugar level)
- CSF cell count: 0 - 5 white blood cells (all mononuclear), and no red blood cells
- Chloride: 110 - 125 mEq/L
- **Note:** mg/mL = milligrams per milliliter; mEq/L = milliequivalents per liter
- **Note:** Normal value ranges may vary slightly among different laboratories

Brief Example of a Lumbar Puncture Procedure 1:

Lumbar Puncture: After obtaining informed consent from the parent an LP was performed under the supervision of Dr. XYZ. The back was prepped and draped in sterile fashion. Landmarks were identified. The area was infiltrated with 1% Lidocaine. A 22 gauge spinal needle was inserted between L4 and L5. Approximately 3 mL of clear CSF was obtained on the first attempt. The needle was withdrawn and bandage applied. There were no complications and the patient tolerated the procedure well. Fluid was sent to the lab to determine if the patient has meningitis. **009U3ZX**

What does the coder need to know?

- At what level was the procedure performed? Lumbar
- Was the procedure therapeutic or diagnostic? Diagnostic

To determine what constitutes a Diagnostic procedure the Guidelines should be consulted.

ICD-10-PCS Official Guidelines for Coding and Reporting 2015

Biopsy procedures

B3.4a

Biopsy procedures are coded using the root operations Excision, Extraction, or Drainage and the qualifier Diagnostic. The qualifier Diagnostic is used only for biopsies.

Examples: Fine needle aspiration biopsy of lung is coded to the root operation Drainage with the qualifier Diagnostic. Biopsy of bone marrow is coded to the root operation Extraction with the qualifier Diagnostic. Lymph node sampling for biopsy is coded to the root operation Excision with the qualifier Diagnostic.

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Puncture, lumbar see Drainage, Spinal Canal **009U**

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Drainage

Spinal Canal **009U**

ICD-10-PCS Tabular

Section	0 Medical and Surgical		
Body System	0 Central Nervous System		
Operation	9 Drainage: Taking or letting out fluids and/or gases from a body part		
Body Part	Approach	Device	Qualifier
F Olfactory Nerve G Optic Nerve H Oculomotor Nerve J Trochlear Nerve K Trigeminal Nerve L Abducens Nerve M Facial Nerve N Acoustic Nerve P Glossopharyngeal Nerve Q Vagus Nerve R Accessory Nerve S Hypoglossal Nerve T Spinal Meninges U Spinal Canal	0 Open 3 Percutaneous 4 Percutaneous Endoscopic	Z No Device	X Diagnostic Z No Qualifier

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Brief Example of a Lumbar Puncture Procedure 2:

See above example, but this time the patient had 15ml of CSF removed. The CSF was removed to reduce pressure. **009U3ZZ**

What does the coder need to know?

- At what level was the procedure performed? Lumbar
- Was the procedure therapeutic or diagnostic? Therapeutic

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“Spinal Headache”

A “spinal headache” occurs in up to 40 percent of patients following lumbar puncture, and is one of the most common complications of the procedure. Post-lumbar puncture headache (PLPHA; also known as post-dural puncture headache; or commonly as spinal headache) is caused by leakage of cerebrospinal fluid from the dura. This leakage decreases the pressure exerted by the spinal fluid on the brain and spinal cord, which leads to a headache.

Most spinal headaches resolve on their own and require no treatment. However, spinal headaches lasting 24 hours or more may need treatment. Treatment may consist of:

- Epidural blood patch
- IV caffeine
- Epidural saline

What is a Blood Patch?

An epidural blood patch is a surgical procedure that provides immediate relief to the headache caused by leaking spinal fluid. Approximately 15-20 ml of blood is taken from a vein in the patient's arm and subsequently injected into the epidural space in the spine at the site of the spinal fluid leak. The blood clots and seals the hole in the dura which stops fluid from leaking out.

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Patch, blood, spinal **3E0S3GC**

ICD-10-PCS Tabular

Section	3 Administration		
Body System	E Physiological Systems and Anatomical Regions		
Operation	0 Introduction: Putting in or on therapeutic, diagnostic, nutritional, physiological, or prophylactic substance except blood or blood products		
Body System / Region	Approach	Substance	Qualifier
S Epidural Space	3 Percutaneous	3 Anti-inflammatory 6 Nutritional Substance 7 Electrolytic and Water Balance Substance B Local Anesthetic C Regional Anesthetic H Radioactive Substance K Other Diagnostic Substance N Analgesics, Hypnotics, Sedatives T Destructive Agent	Z No Qualifier
S Epidural Space	3 Percutaneous	G Other Therapeutic Substance	C Other Substance
S Epidural Space	3 Percutaneous	S Gas	F Other Gas

Please Note: The coder must be guided by documentation in the medical record of each individual case to make the correct code selections