Lumbar Open Midline Decompression with An Interlaminar-Interspinous Fixation

Example Operative Note: Technique A — Interspinous Ligament Removed (Broach)

Diagnoses

Preoperative diagnosis:

- Lumbar spinal stenosis at L4-5 (central, lateral recess, and foraminal) with neurogenic claudication; grade 1 spondylolisthesis; lumbar degenerative disc disease.

Postoperative diagnosis:

- Same.

Procedure Performed

1. L4-5 open midline decompression with interspinous distraction and rigid fixation using an interlaminar-interspinous fixation titanium implant (InSpan), with removal of the interspinous ligament.
2. Intraoperative fluoroscopy.

Implant	InSpan titanium interlaminar-interspinous fixation implant, size [16] mm
Bone graft	Nanofuse Biologics, [5 cc] mixed with saline
Imaging	AP and lateral fluoroscopy

Coding Summary

Code	Description
22867	Insertion of interlaminar/interspinous stabilization/distraction device, without fusion, including image guidance, with open decompression, lumbar; single level.
20930	Allograft, morselized, or placement of osteopromotive material, for spine surgery only.
C1821	Interspinous process distraction device (implantable) — HCPCS device code.

Coder notes:

- 22867 already includes the open decompression at this level — do not separately report a same-level laminectomy/decompression code (e.g., 63047).
- Image guidance is bundled into 22867 — do not separately report 77003/76000.
- For 20930, expect a Medicare denial (0.00 RVU/bundled); verify each commercial payer's policy and prior-auth requirements.
- For a second level, use add-on 22868 (not a second 22867).

Indication

This [**age**]-year-old patient has chronic low back and [**right/left/bilateral**] leg pain consistent with neurogenic claudication, worsened by standing/walking/extension and relieved by sitting or forward flexion. MRI/CT dated [**date**] demonstrates L4-5 [**central/lateral recess/foraminal stenosis ligamentum flavum hypertrophy and neural element compression**], [**grade 1 spondylolisthesis**], [**facet tropism, degeneration**], concordant with the patient's symptoms and exam.

The patient failed appropriate conservative treatment, including [p**hysical therapy/provider-directed exercise**], [**NSAIDs/analgesics/medications**], and/or [**epidural steroid injection/selective nerve root block**], without durable relief. Open lumbar decompression with placement of an interlaminar/interspinous stabilization device, without fusion, was indicated to decompress the neural elements and provide posterior stabilization at the treated level. Risks, benefits, and alternatives were discussed, and informed consent was obtained.

Operation

Positioning and preparation

The surgical site was marked prior to entering the operating room. The patient was brought to the operating room and general endotracheal anesthesia was established. The patient was positioned prone on the operative table with careful padding of all bony prominences. The lower back and buttock area were prepped and draped in standard sterile fashion. The preoperative surgical-site mark was visible within the operative field. A time-out was performed with all team members, confirming patient name, operative level, procedure, and equipment.

Exposure

The operative level at L4-5 was identified using AP fluoroscopy, and the skin was marked after confirmation. A midline incision was made through the skin. Dissection proceeded with Bovie electrocautery for hemostasis, exposing the subcutaneous layer down to the lumbodorsal fascia overlying the spinous processes. The fascia was incised along the spinous processes and elevated, along with the multifidus muscles, off the spinous processes. Using Bovie electrocautery and the flat-blade dilator/decompression knife, dissection proceeded laterally along the L4 and L5 spinous processes in an avascular plane. The remaining fascia was dissected off the spinous processes cephalad and caudad under fluoroscopic guidance, beginning on the right. This created a plane allowing finger dissection of the muscles laterally from the spinous processes to the facets, clearing the lamina. Ray-Tec sponges aided hemostasis. The same steps were repeated on the contralateral side.

Open decompression (interspinous ligament removed)

Under lateral fluoroscopy, the L4 and L5 spinous processes were confirmed, and the broach was positioned with its trajectory aimed at the L4-5 interspinous space. A mallet was used to advance the broach to the lamina under fluoroscopic guidance, decompressing the interspinous region by removing the supraspinous and interspinous ligaments, the caudal border of the L4 spinous process, the cephalad border of the base of the L5 spinous process, and the posterior margins of the adjacent laminae. A Leksell rongeur was then used under live fluoroscopy to continue the open decompression, debulking the posterior aspect of the ligamentum flavum and removing residual ligament and bone. Debulking the posterior ligamentum flavum relieved pressure on the dural sac to address the central stenosis. The decompressed area was palpated to confirm a flat surface, adequate debulking, unbuckling of the ligamentum flavum, and relief of posterior compression from ligamentum hypertrophy.

Implant placement and fixation

Under lateral fluoroscopy, a sizer was used to create distraction between the spinous processes and laminae at L4-5. The appropriately sized interlaminar-interspinous fixation titanium implant was selected and Nanofuse Biologics bone graft was packed within the implant hub. The device was then placed between the spinous processes and laminae to maintain distraction and stability without inducing undue kyphosis. The implant was seated flush against the laminae with a mallet under fluoroscopic guidance. This increased posterior disc height, opened the foramen, released the facets, relieved nerve-root compression, unbuckled the ligamentum flavum, and tensioned the posterior longitudinal ligament and annulus to assist indirect decompression. The inserters were compressed together to firmly engage the implant's teeth into the lateral bony surfaces of the spinous processes, and the set screws were locked, providing rigid fixation. Final AP and lateral fluoroscopic images confirmed satisfactory implant position.

Closure

Hemostasis was confirmed. The wound was irrigated and closed in anatomic layers. A dry sterile dressing was applied. The patient tolerated the procedure well and was transferred to recovery in stable condition. All counts were correct at the conclusion of the case.