

Peridural scar

see [Epidural Fibrosis](#)

Also known as:

- Epidural scarring
- Postoperative epidural adhesions
- (Less commonly: Peridural fibrosis / scar)

Definition

Epidural fibrosis refers to the formation of **fibrous tissue in the epidural space** following spinal surgery, particularly laminectomy or discectomy. It may lead to **nerve root tethering**, **chronic radicular pain**, and contribute to [postlaminectomy_syndrome](#).

Terminology Note

- The term 'epidural fibrosis' is the **standard** in clinical and radiological literature.
- 'Epidural scarring' is widely accepted in informal or descriptive contexts.
- 'Peridural scar/fibrosis' is anatomically correct (peri- = around the dura) but is **rarely used** in modern publications or radiology reports.

Pathophysiology

- Develops as part of the **normal wound healing response**
- Fibrous tissue may envelop or tether nerve roots
- Can restrict nerve root movement and cause **mechanical or inflammatory pain**

Clinical Relevance

- Common cause of persistent radicular pain after surgery
- Often associated with [postlaminectomy_syndrome](#)
- Pain is typically neuropathic, burning, or shooting
- Motor deficits are uncommon unless scar is severe or combined with recurrent disc

Imaging

- **MRI with contrast** is the modality of choice
 - Epidural fibrosis: enhances uniformly
 - Recurrent disc: non-enhancing or peripheral enhancement
 - May show nerve root entrapment or dural sleeve distortion
 - CT myelography as an alternative if MRI contraindicated
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Treatment Options

Conservative

- Neuropathic pain medications (gabapentin, pregabalin, duloxetine)
- Epidural steroid injections (limited efficacy in dense fibrosis)
- Physical therapy and pain education

Interventional

- Adhesiolysis procedures (e.g., Racz catheter)
 - [Spinal cord stimulation \(SCS\)](#)
 - Surgical revision only in carefully selected cases
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Prevention

- Minimize dissection and bleeding
 - Preserve epidural fat when possible
 - Barrier gels (e.g., ADCON-L) have been studied but remain controversial
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See Also

- [postlaminectomy_syndrome](#)
 - [recurrent_disc_herniation](#)
 - [spinal_cord_stimulation](#)
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References

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Last update: **2025/07/03 16:57**

