

Discectomy

A discectomy (also called open discectomy) is the surgical removal of herniated disc material that presses on a nerve root or the spinal cord. The procedure involves removing the central portion of an intervertebral disc, the nucleus pulposus, which causes pain by stressing the spinal cord or radiating nerves.

History

Mixer and Barr first described [laminectomy](#) for LDH in [1934](#) through L3 to sacrum approach. Hemilaminectomy came into practice in the 1970s.¹⁾.

Caspar and Williams described [microdiscectomy](#) via a 3 cm incision in [1977](#).

Wiltse and Spencer described the paraspinal approach for managing extra-foraminal discs in [1988](#)²⁾. In the same year, Kambin and Sampson described a fully endoscopic approach [FE]) for an extra-foraminal approach

In [1993](#), Mayer and Brock reported the use of tubular retractors. Foley and Smith performed a video-assisted technique using a tubular work canal (Micro-endoscopic discectomy: MED) via a 2-cm incision adopting a trans-muscular approach without multifidus release from its insertion in [1997](#).

Epidemiology

A single level discectomy is one of the most common procedures performed by spine surgeons.

Types

[Cervical discectomy](#)

[Lumbar discectomy](#)

[Macrodiscectomy](#)

[Microdiscectomy](#)

[Limited Discectomy](#)

[Aggressive Discectomy](#)

Complications

Epidural fibrosis and [epidural](#) adhesion after [laminectomy](#) are developed from adjacent dense [scar](#) tissue, which is a natural [wound healing](#) process ^{[3\)](#) [4\)](#) [5\)](#) [6\)](#)}, and ranked as the major contributor for [postoperative pain](#) recurrence after laminectomy or [discectomy](#).

[1\)](#) , [2\)](#)

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[3\)](#)

Alkalay RN, Kim DH, Urry DW, Xu J, Parker TM, Glazer PA. Prevention of postlaminectomy epidural fibrosis using bioelastic materials. *Spine (Phila Pa 1976)* 2003;28:1659–1665.

[4\)](#)

Hsu CJ, Chou WY, Teng HP, Chang WN, Chou YJ. Coralline hydroxyapatite and laminectomy-derived bone as adjuvant graft material for lumbar posterolateral fusion. *J Neurosurg Spine.* 2005;3:271–275.

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Temel SG, Ozturk C, Temiz A, Ersozlu S, Aydinli U. A new material for prevention of epidural fibrosis after laminectomy: oxidized regenerated cellulose (interceed), an absorbable barrier. *J Spinal Disord Tech.* 2006;19:270–275.

[6\)](#)

Yu CH, Lee JH, Baek HR, Nam H. The effectiveness of poloxamer 407-based new anti-adhesive material in a laminectomy model in rats. *Eur Spine J.* 2012;21:971–979.

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