

Clinical Policy: Disc Decompression Procedures

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Description

Microdiscectomy or open discectomy (MD/OD) are the standard procedures for symptomatic lumbar disc herniation and they involve removal of the portion of the intervertebral disc compressing the nerve root or spinal cord (or both) with or without the aid of a headlight loupe or microscope magnification. Potential advantages of newer minimally invasive discectomy (MID) procedures over standard MD/OD include less blood loss, less postoperative pain, shorter hospitalization and earlier return to work.

Policy/Criteria

- I. It is the policy of Pennsylvania Health and Wellness[®] (PHW) that open discectomy and microdiscectomy are **medically necessary** when meeting all of the following:
 - A. Age ≥ 18 ;
 - B. Diagnosis of herniated lumbar disc;
 - C. Nerve root compression confirmed by imaging and one of the following:
 1. Unilateral radiculopathy with motor deficit and one of the following:
 - a. Severe weakness in a nerve root distribution, as evidenced by: a score of < 3 on the Medical Research Council 0 to 5 muscle strength scale, or the inability to ambulate;
 - b. Mild to moderate weakness in a nerve root distribution, as evidenced by a score of 3 or 4 on the Medical Research Council 0 to 5 muscle strength scale and one of the following:
 - i. Worsening weakness or motor deficit;
 - ii. Patient has failed to respond to conservative therapy including all of the following:
 - a) ≥ 6 weeks physical therapy or prescribed home exercise program;
 - b) Nonsteroidal anti-inflammatory drug (NSAID) or acetaminophen ≥ 3 weeks unless contraindicated or not tolerated;
 - c) ≥ 6 weeks activity modification;
 2. Unilateral radiculopathy with sensory deficit as evidenced by pain, parasthesias or numbness in a nerve root distribution and patient has failed to respond to conservative therapy including all of the following:
 - a. ≥ 6 weeks physical therapy or prescribed home exercise program;
 - b. NSAID or acetaminophen ≥ 3 weeks unless contraindicated or not tolerated;
 - c. ≥ 6 weeks activity modification.
- II. It is the policy of PHW that the following minimally invasive procedures for spinal decompression have not been proven superior to other existing technologies:
 - A. Percutaneous Lumbar Discectomy (manual or automated [APLD]) and/or MILD);
 - B. Percutaneous Laser Discectomy (PLD);
 - C. Laser-assisted Disc Decompression (LADD);
 - D. Percutaneous laser disc decompression (PLDD);

- E. Percutaneous nucleotomy;
- F. Percutaneous endoscopic discectomy;
- G. Endoscopic laser percutaneous discectomy or LASE;
- H. Endoscopic Spinal Surgery System.
- I. Interspinous/interlaminar process stabilization/spacer device.

Background

A variety of discectomy techniques are available¹:

- The traditional OD is performed with a standard surgical incision, often with the aid of eyepiece (loupe) magnification. It frequently involves a laminectomy (removal of the vertebral lamina to relieve pressure on nerve roots).
- MD is a refinement of open discectomy and involves a smaller incision in the back, with visualization through an operating microscope; this may include a laminotomy or hemilaminectomy in order to adequately visualize the disc, followed by removal of the disc fragment compressing the affected nerve or nerves.
- MID techniques include percutaneous manual nucleotomy, automated percutaneous lumbar discectomy, laser discectomy, endoscopic discectomy, microendoscopic discectomy, coblation nucleoplasty, and the disc DeKompressor. Tubular or trochar discectomy is a less invasive technique in which a tubular retractor is inserted over a guidewire, gaining access to the disc by muscle splitting rather than muscle incision and detachment.

MID procedures involve smaller incisions and surgery with the aid of indirect visualization; some techniques employ lasers to vaporize parts of the disc or automated techniques for removing portions of the disc. They have the potential advantage of quicker recovery from surgery compared to standard OD or MD.

A systematic review of MID versus MD/OD for symptomatic lumbar disc herniation found MID may be inferior in terms of relief of leg pain, low back pain and re-hospitalization.² Additionally, MID may be associated with lower risk of infection and shorter hospital stay, but more research is needed due to inconsistent evidence.²

Evaniew and colleagues came to a similar conclusion in their 2014 systematic review of MID versus open surgery for cervical and lumbar discectomy. They state that moderate-quality evidence suggests no advantage of MID in short- and long-term function, and low-quality evidence shows no advantage in short-and long-term pain.³ At this time the risks due to the more technically complicated MID and potential for inadequate decompression render more conventional spinal decompression procedures the preferred choice.

Chou echoes the findings of the systematic reviews, stating that definitive evidence of advantages of MID techniques is needed before adopting them over OD or MD.¹

The National Institute for Health and Clinical Excellence (NICE)

Current evidence suggests that there are no major safety concerns associated with automated percutaneous mechanical lumbar discectomy. There is limited evidence of efficacy based on uncontrolled case series of heterogeneous groups of patients, but evidence from small

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randomized controlled trials shows conflicting results. In view of the uncertainties about the efficacy of the procedure, it should not be used without special arrangements for consent and for audit or research

Coding Implications

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CPT® Codes	Description
0275T*	Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, discectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (eg, fluoroscopic, CT), , single or multiple levels, unilateral or bilateral; lumbar
62287*	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, any method utilizing needle based technique to remove disc material under fluoroscopic imaging or other form of indirect visualization, with discography and/or epidural injection(s) at the treated level(s), when performed, single or multiple levels, lumbar

* Important Note: This code encompasses various disc procedures, not all of which are considered medically necessary by Pennsylvania Health and Wellness. To determine medical necessity, the actual procedure to be performed must be specified.

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
M51.16	Intervertebral disc disorders with radiculopathy, lumbar region
M51.17	Intervertebral disc disorders with radiculopathy, lumbosacral region
M51.26	Other intervertebral disc displacement, lumbar region
M51.27	Other intervertebral disc displacement, lumbosacral region
M54.16	Radiculopathy, lumbar region
M54.17	Radiculopathy, lumbosacral region
M54.30-M54.32	Sciatica
M54.40-M54.42	Lumbago with sciatica

Reviews, Revisions, and Approvals	Date	Approval Date
Revised I.C.1.a. from a score of < 2 on the Medical Research Council 0 to 5 muscle strength scale to a score of < 3 per 2017 IQ criteria. Codes updated.	06/18	

Reviews, Revisions, and Approvals	Date	Approval Date
Revised I.C.1.a. from a score of < 2 on the Medical Research Council 0 to 5 muscle strength scale to a score of < 3 per 2017 IQ criteria. Codes updated. Annual review; updated the investigational listing of percutaneous lumbar discectomy to specifically mention MILD. Coding reviewed. Specified that CPT 0275T is a code that does not support coverage criteria.	10/19	
References reviewed and updated. Reviewed by specialist. Added interspinous/interlaminar process stabilization device as investigational. Added C1821 as HCPCS code not supporting medical necessity and CPT codes 22867, 22868, 22869, and 22870 as not supporting medical necessity.	10/2020	12/7/2020
Changed policy statement in II. Regarding minimally invasive procedures from “investigational” to stating that the listed procedures are not superior to other technologies and added “and/or MILD)” to section II. A. Codes and references reviewed and updated.	9/29/2021	

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