Clinical Policy: Disc Decompression Procedures

Reference Number: CP.MP.114
Date of Last Revision: 05/24
Effective Date: 08/01/2024

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

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.[1]

Policy/Criteria

I. It is the policy of health plans affiliated with Centene Corporation® that open discectomy and microdiscectomy are **medically necessary** when meeting all of the following:

A. Age ≥ 18 years;
B. Diagnosis of herniated lumbar disc;
C. Nerve root compression confirmed by imaging and one of the following:
   1. 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 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, within the last year, including all of the following:
            a) ≥ four weeks physical therapy or prescribed home exercise program;
            b) ≥ four weeks activity modification;
            c) One of the following:
               1) Nonsteroidal anti-inflammatory drug (NSAID) or acetaminophen ≥ three weeks unless contraindicated or not tolerated;
               2) Epidural steroid injection;
   2. 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 the following:
      a. ≥ four weeks physical therapy or prescribed home exercise program;
      b. ≥ four weeks activity modification;
      c. One of the following:
         i. NSAID or acetaminophen ≥ three weeks unless contraindicated or not tolerated;
         ii. Epidural steroid injection.

II. It is the policy of health plans affiliated with Centene Corporation 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 nuclectomy;
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 available[1]:

- The traditional open discectomy (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).
- Microdiscectomy (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.
- Minimally invasive discectomy (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. There is the potential advantage of quicker recovery from surgery compared to standard OD or MD.[1]

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. 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.[3] 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)
According to NICE, evidence regarding automated percutaneous mechanical lumbar discectomy does not show any major safety concerns at this time.[4] Evidence of efficacy is limited and "based on uncontrolled case series of heterogeneous groups of patients, but evidence from small randomized controlled trials shows conflicting results."[4] Special arrangements should be used for consent and audit or research due to the incertitude regarding the efficacy of this procedure.[4]

Coding Implications
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2023, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT Codes That Support Coverage Criteria

CPT® Codes	Description
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 Centene. To determine medical necessity, the actual procedure to be performed must be specified.

CPT Codes That Do Not Support Coverage Criteria

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
22867	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open decompression, lumbar; single level
22868	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open

CPT® Codes	Description
	decompression, lumbar; second level (List separately in addition to code for primary procedure)
22869	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; single level
22870	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; second level (List separately in addition to code for primary procedure)

HCPCS Codes That Support Coverage Criteria

HCPCS Codes	Description
S2350	Diskectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, single interspace
S2351	Diskectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, each additional interspace (list separately in addition to code for primary procedure)

HCPCS Codes That Do Not Support Coverage Criteria

HCPCS Codes	Description
C1821	Interspinous process distraction device (implantable)
S2348	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, using radiofrequency energy, single or multiple levels, lumbar

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Policy split from CP.MP.63 Pain Management Procedures. Clarified that open discectomy and microdiscectomy are medically necessary, while minimally invasive discectomy procedures are not. Added criteria for open/microdiscectomy. Added background information, CPT, and ICD-10 codes.	07/16	07/16
References reviewed and updated. Reviewed by specialist. Added interspinous/interlaminor 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.	05/20	05/20
Changed policy statement in II. regarding minimally invasive procedures from "investigational" to stating that the listed procedures are not superior to other technologies. Codes and references reviewed and updated. Replaced all instances of "member" with "member/enrollee."	04/21	05/21

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Annual review. Added code S2348 to table of HCPCS codes that do not support coverage criteria. References reviewed and updated. Changed, "review date," in the header to, "date of last revision," and, "date," in the revision log header to, "revision date." Reviewed by external specialist.	05/22	05/22
Annual review. Minor rewording in Description, Criteria, and Background sections with no impact on criteria. ICD-10 codes removed. References reviewed and updated.	05/23	05/23
Annual review. Removed "unilateral" for radiculopathy in Criteria I.C.1. Updated muscle strength score in Criteria I.C.1.a. from < 3 to ≤ 3. Updated muscle strength score in Criteria I.C.1.b. from 3 or 4 to 4. Added "within the last year" for conservative therapy in Criteria I.C.1.b.ii. Updated physical therapy from ≥ six weeks to ≥ four weeks in Criteria I.C.1.b.ii.a). Updated activity modification from ≥ six weeks to ≥ four weeks in Criteria I.C.1.b.ii.b). Updated Criteria I.C.1.b.ii.c) to specify one of the following: 1) NSAID or acetaminophen ≥ 3 weeks unless contraindicated or not tolerated 2) Epidural steroid injection. Removed "unilateral" for radiculopathy in Criteria I.C.2. Updated physical therapy from ≥ six weeks to ≥ four weeks in Criteria I.C.2.a. Updated activity modification from ≥ six weeks to ≥ four weeks in Criteria I.C.2.b. Updated Criteria I.C.2.c. to specify one of the following: i. NSAID or acetaminophen ≥ 3 weeks unless contraindicated or not tolerated ii. Epidural steroid injection. References reviewed and updated. Reviewed by external specialist.	05/24	

References

1. Chou, R. Subacute and chronic low back pain: Surgical treatment. UpToDate. www.uptodate.com. Published September 27. Accessed April 09, 2024.
2. Rasouli MR, Rahimi-Movaghar V, Shokraneh F, Moradi-Lakeh M, Chou R. Minimally invasive discectomy versus microdiscectomy/open discectomy for symptomatic lumbar disc herniation. *Cochrane Database Syst Rev*. 2014;(9):CD010328. Published 2014 Sep 4. doi:10.1002/14651858.CD010328.pub2
3. Evaniew N, Khan M, Drew B, Kwok D, Bhandari M, Ghert M. Minimally invasive versus open surgery for cervical and lumbar discectomy: a systematic review and meta-analysis. *CMAJ Open*. 2014;2(4):E295 to E305. Published 2014 Oct 1. doi:10.9778/cmajo.20140048
4. National Institute for Health and Care Excellence. Automated percutaneous mechanical lumbar discectomy. Interventional procedures guidance [IPG141]. https://www.nice.org.uk/guidance/ipg141. Published November 23, 2005. Accessed April 10, 2024.
5. Health Technology Assessment. Minimally invasive lumbar decompression device kit (Vertos Medical Inc.) for treatment of lumbar spinal stenosis. Hayes. www.hayesinc.com. Published January 26, 2023 (annual review February 20, 2024). Accessed April 02, 2024.

6. Lurie JD, Tosteson TD, Tosteson AN, et al. Surgical versus nonoperative treatment for lumbar disc herniation: eight-year results for the spine patient outcomes research trial [published correction appears in Spine (Phila Pa 1976). 2015 Jan;40(1):E59]. *Spine (Phila Pa 1976)*. 2014;39(1):3 to 16. doi:10.1097/BRS.0000000000000088
7. Pengel LH, Herbert RD, Maher CG, Refshauge KM. Acute low back pain: systematic review of its prognosis. *BMJ*. 2003;327(7410):323. doi:10.1136/bmj.327.7410.323
8. Kreiner DS, Hwang SW, Easa JE, et al. Clinical guidelines for diagnosis and treatment of lumbar disc herniation with radiculopathy. North American Spine Society. https://www.spine.org/Portals/0/Assets/Downloads/ResearchClinicalCare/Guidelines/LumbarDiscHerniation.pdf. Published 2012. Accessed April 11, 2024.
9. McClelland S 3rd, Goldstein JA. Minimally Invasive versus Open Spine Surgery: What Does the Best Evidence Tell Us?. *J Neurosci Rural Pract*. 2017;8(2):194 to 198. doi:10.4103/jnrp.jnrp_472_16
10. Ruan W, Feng F, Liu Z, Xie J, Cai L, Ping A. Comparison of percutaneous endoscopic lumbar discectomy versus open lumbar microdiscectomy for lumbar disc herniation: A meta-analysis. *Int J Surg*. 2016;31:86 to 92. doi:10.1016/j.ijsu.2016.05.061
11. Health Technology Assessment. Percutaneous laser disc decompression for lumbar disc herniation. Hayes. www.hayesinc.com. Published March 28, 2018 (annual review March 16, 2022). Accessed April 02, 2024.
12. Levin K, Hsu PS, Armon C. Acute lumbosacral radiculopathy: Treatment and prognosis. UpToDate. www.uptodate.com. Published November 16, 2023. Accessed April 11, 2024.
13. North American Spine Society. Evidence-based clinical guidelines for multidisciplinary spine care: Diagnosis and treatment of low back pain. https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBackPain.pdf. Updated January 27, 2021. Accessed April 17, 2024.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members/enrollees and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members/enrollees and their representatives agree to be bound by such terms and conditions by providing services to members/enrollees and/or submitting claims for payment for such services.

Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.