



CLINICAL GUIDELINES

CMM-308: Intradiscal Procedures

Version 1.0

Effective July 1, 2021



Definitions

- **Intradiscal procedures** are minimally invasive surgical procedures that can include:
 - ◆ The percutaneous placement of an intradiscal probe into the suspected painful disc(s) and through the use of radiofrequency energy or electrothermal energy, produce heat to either coagulate and/or disrupt (shrink) type I collagen within the disc for decompression of the disc material (TIPs)
 - ◆ The injection of agents into the nucleus pulposus or annulus of the disc to decompress disc material
 - ◆ Percutaneous procedures to decompress disc material using indirect/direct visualization.
- The goal of intradiscal procedures is to treat symptomatic patients with discogenic pain attributed to annular disruption of contained herniated disc, to seal annular tears or fissures, or to destroy nociceptors for the purpose of relieving pain.
- Thermal intradiscal techniques include those that use single or multiple probes/catheters, that utilize a resistance coil or other delivery system technology, are flexible or rigid, and are placed within the nucleus pulposus, the nuclear-annular junction or within the annulus.
- Intradiscal procedures include, but are not limited to:
 - ◆ Annulo-nucleoplasty (The Disc-FX procedure)
 - ◆ Cervical intradiscal radiofrequency lesioning
 - ◆ Coblation percutaneous disc decompression
 - ◆ Intradiscal biacuplasty (IDB)/intervertebral disc biacuplasty/cooled radiofrequency
 - ◆ Intradiscal electrothermal annuloplasty (IEA)
 - ◆ Intradiscal electrothermal therapy (IDET)
 - ◆ Intradiscal thermal annuloplasty (IDTA)
 - ◆ Nucleoplasty (also known as percutaneous radiofrequency thermomodulation or percutaneous plasma discectomy)
 - ◆ Percutaneous (or plasma) disc decompression (PDD)
 - ◆ Percutaneous intradiscal radiofrequency thermocoagulation (PIRFT)/intradiscal radiofrequency thermomodulation/percutaneous radiofrequency thermomodulation
 - ◆ Radiofrequency annuloplasty (RA)
 - ◆ Targeted disc decompression (TDD)
 - ◆ Intradiscal injections (not an all-inclusive list) (e.g., methylene blue, hyaluronate, ozone, oxygen/ozone, bone marrow concentrate, chymopapain, platelet rich plasma (PRP), mesenchymal stem cells, glucocorticoids, hyaluronidase, growth factors, etc.)

Non-indications

- Based on the lack of conclusive scientific evidence demonstrating the clinical efficacy of intradiscal procedures and the potential to expose patients to serious adverse side effects or complications, the use of intradiscal procedures is considered **experimental, investigational, or unproven** because their effectiveness has not been established.

Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required. Pre- authorization requirements vary by individual payor.	
CPT®	Code Description/Definition
22526	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; single level
22527	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; 1 or more additional levels (list separately in addition to code for primary procedure)
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
62292	Injection procedure for chemonucleolysis, including discography, intervertebral disc, single or multiple levels, lumbar
0232T	Injection(s), platelet rich plasma, any site, including image guidance, harvesting and preparation when performed
0274T	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 (e.g., fluoroscopy, CT), single or multiple levels, unilateral or bilateral; cervical or thoracic
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 (e.g., fluoroscopy, CT), single or multiple levels, unilateral or bilateral; lumbar
0481T	Injection(s), autologous white blood cell concentrate (autologous protein solution), any site, including image guidance, harvesting and preparation, when performed
0627T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with fluoroscopic guidance, lumbar; first level
+0628T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with fluoroscopic guidance, lumbar; each additional level (List separately in addition to code for primary procedure)
0629T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with CT guidance, lumbar; first level
+0630T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with CT guidance, lumbar; each additional level (List separately in addition to code for primary procedure)

S2348	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, using radiofrequency energy, single or multiple levels, lumbar
This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the individual payor (health insurance company, etc.) and is based on the member/patient/client/beneficiary's policy or benefit entitlement structure as well as any third party payor guidelines and/or claims processing rules. Providers are strongly urged to contact each payor for individual requirements if they have not already done so.	

References

1. Akeda K, Ohishi K, Masuda K, et al. Intradiscal injection of autologous platelet-rich plasma releasate to treat discogenic low back pain: a preliminary clinical trial. *Asian Spine J*. 2017;11(3): 380-389.
2. Airaksinen O, Brox J, Cedraschi C, et al; On behalf of the COST B13 Working Group on Guidelines for Chronic Low Back Pain. Chapter 4 European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J*. 2006 Mar;15(Supplement 2):s192-s300.
3. American College of Occupational and Environmental Medicine. *Occupational Medicine Practice Guideline*, 2nd Ed. 2008.
4. American Medical Association. *Current Procedural Terminology*—Professional Edition.
5. Andersson G, Mekhail N, Block J. Treatment of intractable discogenic low back pain. A systematic review of spinal fusion and intradiscal electrothermal therapy (IDET). *Pain Physician*. 2006;9:237-48.
6. Appleby D, Andersson G, Totta M. Meta-analysis of the efficacy and safety of intradiscal electrothermal therapy (IDET). *Pain Med*. 2006;7(4):308-16.
7. Barendse G, van Den Berg S, Kessels A et al. Randomized controlled trial of percutaneous intradiscal radiofrequency thermocoagulation for chronic low back pain: lack of effect from a 90 second 70 C lesion. *Spine* 2001;26(3):287-92.
8. Bogduk N, Karasek M. Two-year follow-up of a controlled trial of intradiscal electrothermal annuloplasty for chronic low back pain resulting from internal disc disruption, *Spine J*. 2002 Sep-Oct;2(5):343-50.
9. Boswell M, Trescot A, Datta S, et al American Society of Interventional Pain Physicians.
10. Interventional techniques: evidence-based practice guidelines in the management of chronic spinal pain. *Pain Physician*. 2007;10:7-111.
11. Chou L, Lew H, Coelho P, Slipman C. Intradiscal electrothermal annuloplasty. *Am J Phys Med Rehabil*. 2005;84(7):538-49.
12. Chou R. American Pain Society; American College of Physicians. Nonpharmacologic therapies for acute and chronic low back pain: a review of the evidence for a clinical practice guideline. Recommendations on surgery and interventional treatments. American Pain Society 27th Annual Scientific Meeting: Symposium 312. Presented May 8, 2008.
13. Cohen S, Williams S, Kurihara C, et al. Nucleoplasty With or Without Intradiscal Electrothermal Therapy (IDET) as a Treatment for Lumbar Herniated Disc. *J Spinal Disord Tech*. 2005 Feb;18:S119-S124.
14. Dall'olio M, Princiotta C, Cirillo L, et al. Oxygen-ozone therapy for herniated lumbar disc in patients with subacute partial motor weakness due to nerve root compression. *Intervent Neuroradiology*. 2014;20:547-554. doi: 10.15274/INR-2014-10078.
15. Davis T, Delamarter R, Sra P, et al. The IDET procedure for chronic discogenic low back pain, *Spine*. 2004 Apr 16;29(7):752-6.
16. Derby R, Baker R, Lee C, Anderson P. Evidence-informed management of chronic low back pain with intradiscal electrothermal therapy. *Spine J*. 2008;8:80-95.
17. Freeman B, Fraser R, Cain C, et al. A randomized, double-blind, controlled trial. Intradiscal electrothermal therapy versus placebo for the treatment of chronic discogenic low back pain. *Spine*. 2005;30(21):2369-77.
18. Freeman B. IDET: a critical appraisal of the evidence. *Eur Spine J*. 2006 Jul 26.
19. Gerszten P, Welch W, McGrath P et al. A prospective outcomes study of patients undergoing intradiscal electrothermy (IDET) for chronic low back pain. *Pain Physician* 2002;5(4):360-364
20. Gibson J, Waddell G. Surgery for degenerative lumbar spondylosis: updated Cochrane Review. *Spine*. 2005 Oct 15;30(20):2312-20.
21. Grewal H, Grewal BS, Patel R. Nonsurgical interventions for low back pain. *Prim Care Office Pract*. 2012;517-523.
22. Hashemi M, Poorfarokh M, Mohajerani SA, et al. Injection of intradiscal O2-O3 to reduce pain and disability of patients with low back pain due to prolapsed lumbar disk. *Anesth Pain Med*. 2014;4(5):

- e19206. doi: 10.5812/aapm.19206.
23. Heary R. Intradiscal electrothermal annuloplasty: the IDET procedure. *J Spinal Disord.* 2001;14(4):353-60.
 24. Kallewaard JW, Geurts JW, Kessels A, et al. Efficacy, safety, and predictors of intradiscal methylene blue injection for discogenic low back pain: results of a multicenter prospective clinical series. *Pain Practice.* 2016;16(4): 405-412.
 25. Kapural L, Hayek S, Malak O, et al. Intradiscal thermal annuloplasty versus intradiscal radiofrequency ablation for the treatment of discogenic pain: a prospective matched trial. *Pain Med* 2005;6(6):425-31.
 26. Kapural L, Mekhail N, Korunda Z, Basali A. Intradiscal thermal annuloplasty for the treatment of lumbar discogenic pain in patients with multilevel degenerative disc disease. *Anesth Analg.* 2004;99:472-6.
 27. Karasek M, Bogduk N. Twelve-month follow-up of a controlled trial of intradiscal thermal annuloplasty for back pain due to internal disc disruption. *Spine* 2000;25(20):2601-2607.
 28. Kirchner F, Anitua E. Intradiscal and intra-articular facet infiltrations with plasma rich in growth factors reduce pain in patients with chronic low back pain. *J Craniovertebr Junction Spine.* 2016;7(4): 250-256. doi: 10.4103/0974-8237.193260.
 29. Kloth D, Fenton D, Andersson G, Block J. Intradiscal electrothermal therapy (IDET) for the treatment of discogenic low back pain: patient selection and indications for use. *Pain Physician.* 2008;11:659-68.
 30. Kristen C, Robert S, Michelle P. Effects of the intradiscal implantation of stromal vascular fraction plus platelet rich plasma in patients with degenerative disc disease. *J Transl Med.* 2017;15:12. doi: 10.1186/s12967-016-1109-0.
 31. Kumar H, Ha DH, Eun-Jong L, et al. Safety and tolerability of intradiscal implantation of combined autologous adipose-derived mesenchymal stem cells and hyaluronic acid in patients with chronic discogenic low back pain: 1-year follow-up of a phase 1 study. *Stem Cell Res Ther.* 2017;8:262. doi: 10.1186/s13287-017-0710-3.
 32. Levi D, Horn S, Tyszko S, et al. Intradiscal platelet-rich plasma injection for chronic discogenic low back pain: preliminary results from a prospective trial. *Pain Medicine.* 2016;17: 1010-1022. doi: 10.1093/pm/pnv053.
 33. Lutz C, Lutz G, Cooke P. Treatment of chronic lumbar discogenic pain with intradiscal electrothermal therapy: a prospective outcome study. *Arch Phys Med Rehabil* 2003;84: 23-28.
 34. Magalhaes F, Dotta L, Sasse A, et al. Ozone therapy as a treatment for low back pain secondary to herniated disc: a systematic review and meta-analysis of randomized controlled trials. *Pain Physician.* 2012; 15:E115-E129.
 35. Monfett M, Harrison J, Boachie-Adjei K, et al. Intradiscal platelet-rich plasma (PRP) injections for discogenic low back pain: an update. *International Orthop.* 2016;40: 1321-1328. doi: 10.1007/s00264-016-3178-3.
 36. Nguyen C, Boutron I, Baron G, et al. Intradiscal glucocorticoid injection for patients with chronic low back pain associated with active discopathy: a randomized trial. *Ann Intern Med.* 2017;166(8):547-556. doi: 10.7326/M16-1700. Epub 2017 Mar 21.
 37. Pauza K, Howell S, Dreyfuss P, et al. A randomized, placebo-controlled trial of intradiscal electrothermal therapy (IDET) for the treatment of discogenic low back pain. *Spine J.* 2004;4(1):27-35.
 38. Pettine K, Suzuki RK, Sand TT, et al. Autologous bone marrow concentrate intradiscal injection for the treatment of degenerative disc disease with three-year follow-up. *International Ortho.* 2017;41:2097-2103. doi: 10.1007/s00264-017-3560-9.
 39. Saal J, Saal J. Intradiscal electrothermal therapy for the treatment of chronic discogenic low back pain. *Clin Sports Med.* 2002;21(1):167-87.

40. Saal J, Saal JS Intradiscal electrothermal treatment for chronic discogenic low back pain: a prospective outcome study with minimum 1-year follow-up. *Spine* 2000 Oct 15;25(20):2622-7.
41. Saal J, Saal J. Intradiscal electrothermal treatment for chronic discogenic low back pain: prospective outcome study with a minimum 2-year follow-up, *Spine* 2002 May 1;27(9):966-73; discussion 973-4.
42. Saal J, Saal J. Management of chronic discogenic low back pain with a thermal intradiscal catheter. A preliminary report. *Spine* 2000 Feb 1;25(3):382-8.
43. Stanos S. New Clinical Practice Guidelines on Low Back Pain. *APS Bulletin*, 2007;18(2).
44. Urrútia G, Kovacs F, Nishishinya M, Olabe J. Percutaneous thermocoagulation intradiscal techniques for discogenic low back pain. *Spine*. 2007;32(10):1146-54.
45. Webster B, Verma S, Pransky G, Outcomes of workers' compensation claimants with low back pain undergoing intradiscal electrothermal therapy, *Spine*. 2004 Feb 15;29(4):435-41.
46. Wetzel F, McNally T, Phillips F. Intradiscal electrothermal therapy used to manage chronic discogenic low back pain: new directions and interventions. *Spine*. 2002;27(22):2621-6.
47. Wetzel F, McNally T. Treatment of chronic discogenic low back pain with intradiscal electrothermal therapy. *J Am Acad Orthop Surg*. 2003 Jan-Feb;11(1):6-11.
48. Workloss Data Institute. Official Disability Guidelines.
49. Yang C, Zhang L, Sun Z, et al. Acute prevertebral abscess secondary to intradiscal oxygen-ozone chemonucleolysis for treatment of a cervical disc herniation. *Journ of International Medical Research*. 2018;46(6):2461-2465. doi: 10.1177/0300060518764186.
50. Zhang X, Hao J, Hu Z, et al. Clinical evaluation and magnetic resonance imaging assessment of intradiscal methylene blue injection for the treatment of discogenic low back pain. *Pain Physician*. 2016;19:E1189-E1195.