



PARAMOUNT

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Discogenic Pain Treatment

Policy Number: PG0026

Last Review: 06/01/2021

GUIDELINES

- **This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder terms, conditions, exclusions and limitations contract. It does not constitute a contract or guarantee regarding coverage or reimbursement/payment. Self-Insured group specific policy will supersede this general policy when group supplementary plan document or individual plan decision directs otherwise.**
- **Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards.**
- **This medical policy is solely for guiding medical necessity and explaining correct procedure reporting used to assist in making coverage decisions and administering benefits.**

SCOPE

Professional

Facility

DESCRIPTION

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.
- 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. Percutaneous discectomy describes techniques by which disc decompression is accomplished by the physical removal of disc material rather than its ablation.

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.

Most discogenic low back pain will resolve spontaneously or can be treated with conservative therapies, such as pharmacological therapy (e.g., analgesics, anti-inflammatory drugs, muscle relaxants), exercise, physical therapy, spinal manipulation, and acupuncture. Numerous alternative minimally invasive techniques and approaches have been proposed for the treatment of back and neck pain for patients with pain that persists despite conservative treatment.

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.

Description of Services, not all-inclusive:

Annulus Fibrosus Repair

The annulus fibrosus is a ring of fibrocartilage and fibrous tissue around the intervertebral disc, surrounding the nucleus pulposus of the spine. During a surgical discectomy or some other spine surgeries, an open pathway or hole (defect) is made in the annulus fibrosus, which is then left to heal. Annulus fibrosus repair systems are designed to reinforce or bridge material to form a strong flexible wall between the annulus and nucleus of the herniated region to close the defect and repair the annulus fibrosus of the intervertebral disc. Current annulus

fibrosus repair strategies include sutures, plugs, adhesives and hydrogels.

Percutaneous Discectomy Procedures

A discectomy is a procedure in which part of a herniated disc is removed. The goal of the surgery is to make the herniated disc stop pressing on and irritating the nerves which cause pain and weakness. There are a number of techniques described as “percutaneous discectomy,” including nucleoplasty, laser discectomy, Yeung Endoscopic Spinal Surgery (YESS), Transforaminal (TESSYS®) and Interlaminar (iLESSYS®) Endoscopic Surgical Systems. Variations on each of these techniques are numerous.

Automated Percutaneous Lumbar Discectomy (APLD)/Automated Percutaneous Nucleotomy

Automated percutaneous lumbar discectomy (APLD), also referred to as automated percutaneous nucleotomy, is a minimally-invasive surgical procedure used in the treatment of herniated lumbar intervertebral discs. In this procedure, a cannula is placed in the center of the disc under fluoroscopic guidance using a posterolateral approach. A probe connected to an automated cutting and aspiration device is then introduced through the cannula. The disc is then aspirated until no more nuclear material is obtained.

Nucleoplasty

Nucleoplasty [also known as percutaneous disc decompression (PDD) or percutaneous plasma discectomy] is a percutaneous method of decompressing herniated vertebral discs that uses bipolar radiofrequency energy for ablating soft tissue and thermal energy for coagulating the soft tissue, combining both approaches to decompress the disc and thermally alter the disc tissue, which uses x-ray images (fluoroscopy) for guidance to insert a specialized catheter to reach the disc nucleus. Radiofrequency energy is used to ablate (coablate) nuclear material and create small channels within the disc. This is thought to decompress the disc, reducing the pressure both inside the disc and on nerve roots. Typically, individuals are awake during the procedure.

Laser Discectomy

Laser discectomy [also known as laser disc decompression (PLDD), laser assisted disc decompression (LADD) or percutaneous endoscopic discectomy, with or without laser (PELD)] is a minimally-invasive procedure proposed as an alternative to discectomy or microdiscectomy. This procedure is performed under local anesthesia since an individual’s cooperation is required during the procedure. The disc space is punctured with a cannula and the tip of the needle is placed into the center of the disc. A second cannula is placed on the opposite lateral side of the disc. Parts of the nucleus pulposus are removed to allow for examination. The remaining disc material is vaporized using a laser.

Yeung Endoscopic Spinal Surgery (YESS)

Yeung endoscopic spinal surgery (YESS) [also known as arthroscopic microdiscectomy (AMD) or percutaneous endoscopic discectomy (PELD)], is a minimally-invasive discectomy procedure designed to relieve symptoms caused by herniated discs pressing on nerves. The YESS system uses an endoscopic approach to selectively remove the nucleus pulposus within annular tears. The Yeung Endoscopic Spine System (Richard Wolf Instruments Corporation, IL) is a specialized endoscope developed for percutaneous spinal endoscopy and discectomy. This endoscope has multichannel inflow and outflow ports, allowing visualization through one port and suction or other therapeutic services through the working port. The YESS is also used for other spinal procedures, including arthroscopic microdiscectomy, radiofrequency ablation, injection of intraoperative steroids, and laser disc decompression and ablation. Selective Endoscopic Discectomy™ (SED), performed with the YESS endoscope, is used to shrink and remove herniated discs.

Transforaminal (TESSYS®) and Interlaminar Endoscopic Surgical Systems

The TESSYS® approach focuses on the endoscopic visualization of the foramen and a transforaminal approach in order to resect the herniated disc. The surgeon performs a foraminoplasty through which neural elements can be decompressed. Disc material is removed completely and directly through the foramen, which is gradually widened using specialized reamers and instruments. The iLESSYS® method uses endoscopic interlaminar access for the removal of herniated discs or the treatment of lumbar spinal stenosis. Generally, all lumbar levels can be treated with either approach.

Thermal Intradiscal Procedures (TIPs)

Percutaneous thermal intradiscal procedures (TIPs) involve the insertion of a catheter(s)/probe(s) in the spinal disc

under fluoroscopic guidance for the purpose of producing or applying heat and/or disruption within the disc to relieve low back pain. A number of electrothermal intradiscal procedures have been introduced to treat discogenic low back pain; they rely on various probe designs to introduce radiofrequency (RF) energy into the disc. In general, percutaneous thermal intradiscal procedures (TIPs) involve the insertion of a catheter or probe into the spinal disc, under fluoroscopic guidance, to produce or apply heat within the disc to relieve low back pain (LBP). TIPs is thought to remove unwanted tissue, such as herniated discs; create a seal to limit expression of matrix components; shrink collagen tissue; and destroy nociceptors. Although not intended to be an all-inclusive list, three types of TIPs have been used: Intradiscal Electrothermal Therapy (IDET), Intradiscal Biacuplasty (IDB) or Biacuplasty, and Percutaneous Intradiscal Radiofrequency Thermocoagulation (PIRFT).

Intradiscal Electrothermal Therapy (IDET)

Intradiscal electrothermal therapy (IDET) is one type of TIP. Since degeneration of the intervertebral disc can be the source of severe LBP, IDET has been proposed as an alternative treatment to spinal fusion for those individuals with symptomatic internal disc disruption, who are nonresponsive to conservative medical care. IDET is a minimally invasive, outpatient procedure, during which individuals are administered local anesthesia and mild sedation. Under x-ray imaging (fluoroscopy), a disposable flexible catheter and a heating element are inserted into the spinal disc, directly to the annulus fibrosus, the outer component of the intervertebral discs. IDET destroys the nerve fibers and “toughens” the disc tissue, sealing any small tears. The heating of the electrode denatures the collagen of the annulus and coagulates the nerve endings with the goal of alleviating pain.

Intradiscal Biacuplasty (IDB) or Biacuplasty

Intradiscal biacuplasty (IDB) or biacuplasty is a modification of IDET that aims to destroy the nerve fibers that generate pain sensations. IDB is a minimally invasive outpatient procedure that requires local anesthesia or mild sedation. IDB uses radiofrequency energy to heat the tissue, while circulating water is used to cool the tissue near the disc. This bilateral approach is intended to facilitate controlled lesioning between the electrodes in the disc.

Percutaneous Intradiscal Radiofrequency Thermocoagulation (PIRFT)

Percutaneous intradiscal radiofrequency thermocoagulation (PIRFT) is a minimally invasive method similar to IDET. PIRFT is also known as intradiscal electrothermal annuloplasty (IEA), intradiscal radiofrequency thermomodulation, radiofrequency (RF) annuloplasty, or radiofrequency posterior annuloplasty. Compared with IDET, PIRFT uses a radiofrequency probe that is placed into the center of the disc, rather than around the annulus. The device is activated for 90 seconds at a temperature of 70° Celsius. PIRFT does not ablate the disc material, but instead alters the biomechanics of the disc or destroys nociceptive pain fibers.

A variety of radiofrequency (RF) coagulation devices are cleared for marketing by the U.S. Food and Drug Administration (FDA), some of which are designed for disc nucleotomy. The following are examples of devices that have U.S. Food and Drug Administration’s (FDA) 510(k) approval:

- IDET™, Oratec Nucleotomy Catheter
- SpineCATH™ Intradiscal Catheter
- Radionics RF Disc Catheter Electrode System (Radionics Inc./Tyco Healthcare)
- DiscTRODE™ RF catheter electrode system (Valleylab/Tyco Healthcare) for use with the RFG-3CPlus™ RF lesion generator (Radionics/Tyco Healthcare)
- TransDiscal™ System (Baylis Medical) for biacuplasty
- Pain Management Cooled Probe (Baylis Medical)
- Pain Management Generator-TD (Baylis Medical) with multi-radiofrequency (Multi-RF) mode for use in conjunction with FDA approved probes such as the TransDiscal probe or Baylis Pain Management Cooled Probe to create radiofrequency lesions in nervous tissue.
- Duocool Pain Management Probe (Baylis Medical)

POLICY

HMO, PPO, & Individual Marketplace

- **The following Discogenic Pain Treatment procedures are unproven and not medically necessary due to insufficient evidence of efficacy:**
 - **Annulus fibrosus repair following spinal surgery**

- Percutaneous discectomy and decompression procedures for treating discogenic pain
- Thermal intradiscal procedures (TIPs) for treating discogenic pain
- Procedures (22526, 22527, 62287, 0274T, 0275T, 0627T, 0628T, 0629T, 0630T, S2348) are non-covered.

Elite/ProMedica Medicare Plan

- The following Discogenic Pain Treatment procedures are unproven and not medically necessary due to insufficient evidence of efficacy:
 - Annulus fibrosus repair following spinal surgery
 - Percutaneous discectomy and decompression procedures for treating discogenic pain
 - Thermal intradiscal procedures (TIPs) for treating discogenic pain
 - Procedures (22526, 22527, 62287, 0274T, 0627T, 0628T, 0629T, 0630T, S2348) are non-covered.
- Per CMS NCD-150.13 procedure 0275T is covered when part of a clinical trial, prior authorization not required.

Advantage

- Discogenic Pain Treatment Procedures 22526, 22527, 62287 and 0275T require prior authorization
- Procedures 0274T, 0627T, 0628T, 0629T, 0630T, S2348 are non-covered

COVERAGE CRITERIA

HMO, PPO, Individual Marketplace, Elite/ProMedica Medicare Plan

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.

The following procedures are unproven and not medically necessary due to insufficient evidence of efficacy (this list may not be all-inclusive):

- Annulus fibrosus repair following spinal surgery
- Percutaneous discectomy and decompression procedures for treating discogenic pain
 - Percutaneous lumbar discectomy (manual or automated [APLD] and/or MILD)
 - Percutaneous laser discectomy (PLD)
 - Laser-assisted disc decompression (LADD)
 - Percutaneous laser disc decompression (PLDD)
 - Percutaneous nucleotomy
 - Percutaneous endoscopic discectomy
 - Endoscopic laser percutaneous discectomy or LASE
 - Intradiscal glucocorticoid injection for the treatment of low back pain (LBP)
 - Intradiscal implantation of combined autologous adipose-derived mesenchymal stem cells and hyaluronic acid for the treatment of discogenic LBP
 - Intradiscal implantation of stromal vascular fraction plus platelet rich plasma for the treatment of degenerative disc disease (DDD)
 - Intradiscal infiltration with plasma rich in growth factors for the treatment of LBP
 - Intradiscal injection of autologous bone marrow concentrate for the treatment of DDD
 - Intradiscal injections of bone marrow aspirate for the treatment for discogenic LBP
 - Intradiscal injection of gelified ethanol (DiscoGel) for the treatment of cervical disc herniations, neck pain, and LBP
 - Intradiscal injection of hydrogel (GelStix) for the treatment of lumbar DDD
 - Intradiscal injection of methylene blue for the treatment of LBP
 - Intradiscal pulsed radiofrequency for the treatment of discogenic neck pain
 - MR-guided percutaneous intradiscal thermotherapy (MRgPIT) for the treatment of lumbar DDD
- Thermal intradiscal procedures (TIPs) for the treatment of chronic discogenic back pain (this list may not be all-inclusive):

- Intradiscal electrothermal therapy (IDET)
- Intradiscal thermal annuloplasty (IDTA)
- Intradiscal electrothermal annuloplasty (IEA)
- Intradiscal thermal annuloplasty (IDTA)
- Percutaneous intradiscal radiofrequency thermocoagulation (PIRFT)
- Percutaneous radiofrequency thermomodulation
- Coblation percutaneous disc decompression
- Nucleoplasty (also known as percutaneous radiofrequency thermomodulation or percutaneous plasma discectomy)
- Annulo-Nucleoplasty (the Disc-FX procedure)
- Radiofrequency annuloplasty (RA)
- Intradiscal biacuplasty (IDB)
- Percutaneous (or plasma) disc decompression (PDD)
- Targeted disc decompression (TDD)

TIPs may also be identified or labeled based on the name of the catheter/probe that is used (e.g., SpineCath, discTRODE, Accuthem, or TransDiscal electrodes).

Percutaneous annuloplasty (e.g., intradiscal electrothermal annuloplasty, intradiscal radiofrequency annuloplasty, or intradiscal biacuplasty) for the treatment of chronic discogenic back pain is considered not medically necessary.

Elite/ProMedica Medicare Plan

For claims with dates of service on or after January 9, 2014, Percutaneous Image-guided Lumbar Decompression (PILD) for Lumbar Spinal Stenosis (LSS) (0275T) is a covered service only when billed as part of a clinical trial per CMS NCD-150.13.

Advantage

While there is insufficient evidence in the published medical literature to demonstrate the safety, efficacy and long-term outcomes of Percutaneous & Endoscopic Spinal Surgery and Thermal Intradiscal Procedures (22526, 22527, 62287 and 0275T), The Ohio Department of Medicaid requires this procedure be reviewed for medical necessity. Therefore, it may be covered with a prior authorization for Advantage members.

Procedures 0274T, 0627T, 0628T, 0629T, 0630T, S2348 are non-covered for Advantage.

CODING/BILLING INFORMATION

The inclusion or exclusion of a code in this section does not necessarily indicate coverage. Codes referenced in this clinical policy are for informational purposes only.

Codes that are covered may have selection criteria that must be met.

Payment for supplies may be included in payment for other services rendered.

CPT CODES	
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 the use of an endoscope, with discography and/or epidural injections(s) at the treated levels(s), when performed, single or multiple levels, lumbar
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 (eg, fluoroscopic, CT), with or without the use of an endoscope, 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 (eg, fluoroscopic, CT), with or without the use of an endoscope,

	single or multiple levels, unilateral or bilateral; lumbar
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)
HCPCS CODE	
S2348	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, using radiofrequency energy, single or multiple levels, lumbar

Paramount reserves the right to review and revise our policies periodically when necessary. When there is an update, we will publish the most current policy to <https://www.paramounthealthcare.com/services/providers/medical-policies/> .

REVISION HISTORY EXPLANATION

ORIGINAL EFFECTIVE DATE: 09/15/2004

Date	Explanation & Changes
12/01/06	<ul style="list-style-type: none"> Added new procedure codes 22526 and 22527
11/30/07	<ul style="list-style-type: none"> Added code 62287
07/01/10	<ul style="list-style-type: none"> Procedures 0062T and 0063T were deleted, added S2348
03/18/13	<ul style="list-style-type: none"> Updated to deny these services "EM" for Advantage members (Medicaid Appendix DD with fee listed)
01/15/14	<ul style="list-style-type: none"> Percutaneous intradiscal electrothermal annuloplasty (22526, 22527) may now be covered with prior authorization for Advantage members per The Ohio Department of Medicaid Changed name of medical policy from Intradiscal Electrothermal/Any Method Annuloplasty (IDET), Percutaneous Intradiscal Radiofrequency Thermocoagulation (PIRFT) to Thermal Intradiscal Procedures Policy reviewed by the Technology Assessment Working Group (TAWG) and updated to reflect most current clinical evidence
05/13/14	<ul style="list-style-type: none"> Approved by Medical Policy Steering Committee as revised
08/22/14	<ul style="list-style-type: none"> Changed name of medical policy from Thermal Intradiscal Procedures to Minimally Invasive Treatment of Back and Neck Pain Procedure code 62287 may now be covered with prior authorization for Advantage members per The Ohio Department of Medicaid Policy reviewed and updated to reflect most current clinical evidence per the Technology Assessment Working Group (TAWG).
05/21/15	<ul style="list-style-type: none"> Policy reviewed and updated to reflect most current clinical evidence per the Technology Assessment Working Group (TAWG)
05/27/16	<ul style="list-style-type: none"> Added code 0274T to policy as non-covered for all product lines Added code 0275T to policy as non-covered for HMO, PPO, Individual Marketplace & Advantage and covered without prior authorization only when part of a clinical trial for Elite Policy reviewed and updated to reflect most current clinical evidence per the Technology Assessment Working Group (TAWG)
06/23/17	<ul style="list-style-type: none"> Policy reviewed and updated to reflect most current clinical evidence per the Technology Assessment Working Group (TAWG)
12/18/2020	<ul style="list-style-type: none"> Medical policy placed on the new Paramount Medical Policy Format

06/01/2021	<ul style="list-style-type: none"> • Changed medical policy title name from Minimally Invasive Treatment of Back and Neck Pain to Discogenic Pain Treatment • Policy reviewed and updated to reflect most current clinical evidence • Added codes 0627T, 0628T, 0629T, 0630T • Denial criteria maintained
06/14/2022	<ul style="list-style-type: none"> • Effective 7/1/2021 procedure 0275T is covered for Advantage, per ODM Appendix DD, prior authorization required-to determine medical necessity

REFERENCES/RESOURCES

Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services

Ohio Department of Medicaid

American Medical Association, *Current Procedural Terminology (CPT®)* and associated publications and services

Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets

Hayes, Inc.

Industry Standard Review