

National Imaging Associates, Inc.	
Clinical guidelines: PARAVERTEBRAL FACET JOINT DENERVATION (RADIOFREQUENCY NEUROLYSIS)	Original Date: October 2012
CPT Codes: Cervical Thoracic Region: 64633, +64634 Lumbar Region: 64635, +64636	Last Revised Date: <u>May 2023</u> May 2022
Guideline Number: NIA_CG_302	Implementation Date: January 20<u>24</u>23

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

~~**Note:** Any injection performed at least two years from prior injections in the same region will be considered a new episode of care and the INITIAL injection requirements must be met for approval. Events such as surgery on the same spinal region or any new pathology would also prompt a new episode of care.~~

INDICATIONS FOR PARAVERTEBRAL FACET JOINT DENERVATION/RADIOFREQUENCY NEUROLYSIS

See [Legislative Requirements](#) for specific mandates in the State of Washington

For the treatment of facet-mediated pain ALL of the following must be met:

- Lack of evidence that the primary source of pain being treated is from sacroiliac joint pain, discogenic pain, sacroiliac joint pain, disc herniation or radiculitis^{1, 2}
- Pain causing functional disability or average pain levels of ≥ 6 on a scale of 0 to 10¹⁻³
- Duration of pain of at least **3 months**^{1, 3}
 - ~~ONE~~ ONE of the following:
 - ~~Positive response to one or two controlled~~ at least one local anesthetic blocks of the facet joint nerves (medial branch blocks), with at least 70% pain relief or improved ability to function for a minimal duration at least equal to that of the

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local anesthetic, but with insufficient sustained relief (less than 2-3 months relief) ¹⁻³; ~~AND a~~

- ~~Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented~~¹⁻³; ~~OR~~
- ~~Positive response to prior radiofrequency denervation procedures with at least 50% pain relief or improved ability to function for at least 4 months; AND the individual is engaged in ongoing non-operative conservative therapy* unless the medical reason this treatment cannot be done is clearly documented.~~^{1,3-5*}

NOTE: All procedures must be performed using fluoroscopic or CT guidance^{6, 7}

FREQUENCY OF INDICATIONS FOR REPEAT PROCEDURES

Facet joint denervation procedures may be repeated only as medically necessary. Each denervation procedure requires an authorization, and the following criteria must be met for repeat procedures:

- Positive response to prior radiofrequency denervation procedures with at least 50% pain relief or improved ability to function for at least 4 months^{1, 3-5}
- The individual continues to have pain causing functional disability or average pain level ≥ 6 on a scale of 0-10¹⁻³
- The individual is engaged in ongoing non-operative conservative therapy* unless the medical reason this treatment cannot be done is clearly documented.^{1, 3-5}
- ~~Repeat denervation procedures should not be performed more frequently than every 4 months with a~~ A maximum of 2 facet denervation procedures maybe be performed in a 12-month period **per spinal region**¹
 - Unilateral radiofrequency denervation's performed at the same level(s) on the right vs left within 1 month of each other would be considered as one procedure toward the total number of radiofrequency procedures allowed per 12 months. There is no minimum timeframe required between these procedures on the right vs left. Opposite side denervation procedures performed at the same level(s) within 1 month of the first side do not require ~~first side follow-up information~~ to be submitted. during the interval.

NOTE: It is generally considered **not medically necessary** to perform multiple interventional pain procedures on the same date of service. Documentation of a medical reason to perform injections in different regions on the same day can be provided and will be considered on a case-by-case basis (~~i.e. e.g.,~~ holding anticoagulation therapy on two separate dates creates undue risk for the patient). ~~Different types of injections in the same spinal region (cervical,~~

thoracic, or lumbar) should not be done on the same day with the exception of a facet injection and ESI performed in the same session for a synovial cyst.

EXCLUSIONS

These requests are excluded from consideration under this guideline:

- ~~Radiofrequency denervation of the sacroiliac joint and/or sacral lateral branches (S1, S2, S3) any nerves other than medial branch nerves (i.e., sacroiliac joint denervation, sacral lateral branch denervation, etc.)~~

CONTRAINDICATIONS FOR FACET JOINT DENERVATION

- Active systemic or spinal infection
- Skin infection at the site of needle puncture

LEGISLATIVE REQUIREMENTS

- Washington
 - Washington State Health Care Authority Health Technology Assessment – 20140321B – Facet Neurotomy⁸⁻¹⁰
 - Lumbar Facet Neurotomy is a **covered benefit** with the following conditions:
 - Patient(s) must be over 17 years of age, and:
 - Has at least six months of continuous low back pain referable to the facet joint
 - The pain is non-radicular pain
 - Condition is unresponsive to other therapies including conservative care
 - There are no other clear structural cause of back pain
 - There is no other pain syndrome affecting the spine.
 - For identification, diagnosis, and treatment:
 - Patient must be selected by at least 80% improvement in pain after each of two differential medial branch blocks, one short-acting; one long-acting
 - One or two joints per each intervention, with documented, clinically significant improvement in pain and/or function for six months before further neurotomy at any level.
 - Cervical Facet Neurotomy for cervical pain is a **covered benefit** with the following conditions:
 - Limited to C3 - 4, through C6 -7
 - Patient(s) over 17 years of age, and:

- Has at least six months of continuous neck pain referable to the facet joint
- The pain is non-radicular
- Condition is unresponsive to other therapies including conservative care
- There are no other clear structural cause of neck pain
- No other pain syndrome affecting the spine
- For identification, diagnosis, and treatment:
 - Patient must be selected by 100% improvement in pain after each of two differential medial branch blocks, one short-acting; one long-acting
 - One joint per each intervention, with documented, clinically significant improvement in pain and/or function for six months before further neurotomy at any level.
- Non-Covered Indicators
 - Facet Neurotomy for the thoracic spine is **not covered**.
 - Facet Neurotomy for headache is **not covered**.
- Washington State Health Care Authority oversees the Apple Health (Medicaid) program and the Public Employees Benefits Board (PEBB) Program.¹¹

BACKGROUND

Facet joints, (also called zygapophyseal joints or z-joints), posterior to the vertebral bodies in the spinal column and connecting the vertebral bodies to each other, are located at the junction of the inferior articular process of a more cephalad vertebra and the superior articular process of a more caudal vertebra. These joints provide stability and enable movement, allowing the spine to bend, twist, and extend in different directions. They also restrict hyperextension and hyperflexion.^{1, 12}

Facet joints are clinically important spinal pain generators in individuals with chronic spinal pain. In 15 – 45% individuals with chronic low back pain, facet joints have been implicated as a cause of the pain. Facet joints are considered as the cause of chronic spinal pain in 48% of individuals with thoracic pain and 54 – 67% of individuals with chronic neck pain.¹³ Facet joints may refer pain to adjacent structures, making the underlying diagnosis difficult as referred pain may assume a pseudoradicular pattern. Lumbar facet joints may refer pain to the back, buttocks, and lower extremities while cervical facet joints may refer pain to the head, neck, and shoulders.

Imaging findings are of little value in determining the source and location of ‘facet joint syndrome’, a term originally used by Ghormley¹⁴ in 1933, referring to back pain caused by pathology at the facet joints. Imaging studies may detect changes in facet joint architecture, but correlation between radiologic findings and symptoms is unreliable. Although clinical signs are also unsuitable for diagnosing facet joint-mediated pain, they may be of value in selecting individuals for controlled local anesthetic blocks of either the medial branches or the facet joint itself.¹⁵

Facet joints are known to be a source of pain with definitive innervations. Interventions used in the treatment of individuals with a confirmed diagnosis of facet joint pain include medial branch nerve blocks in the lumbar, cervical, and thoracic spine; and radiofrequency neurolysis (*see additional terminology*). The medial branch of the primary dorsal rami of the spinal nerves has been shown to be the primary innervations of facet joints. Substance P, a physiologically potent neuropeptide considered to play a role in the nociceptive transmission of nerve impulses, is found in the nerves within the facet joint.^{1, 16, 17}

Radiofrequency neurolysis is a minimally invasive treatment for cervical, thoracic, and lumbar facet joint pain. It involves using energy in the radiofrequency range to cause necrosis of specific nerves (medial branches of the dorsal rami), preventing the neural transmission of pain. The objective of radiofrequency neurolysis is to both provide relief of pain and reduce the likelihood of recurrence.¹⁸

Members of the American Society of Anesthesiologists (ASA) and the American Society of Regional Anesthesia and Pain Medicine (ASRA) have agreed that conventional or thermal radiofrequency ablation of the medial branch nerves to the facet joint should be performed for neck or low back pain.¹⁹ Radiofrequency neurolysis has been employed for over 30 years to treat facet joint pain. Prior to performing this procedure, shared decision-making between patient and physician must occur, and the patient must understand the procedure and its potential risks and results.

OVERVIEW

THERAPEUTIC PARAVERTEBRAL FACET JOINT DENERVATION (RADIOFREQUENCY NEUROLYSIS): Local anesthetic block is followed by the passage of radiofrequency current to generate heat and coagulate the target medial branch nerve. Traditional radiofrequency and cooled radiofrequency are included by this definition. Pulsed radiofrequency, cryo-ablation, or laser ablation are not included in this definition.

***Conservative Therapy** - Non-operative treatment should include a multimodality approach consisting of a combination of active and inactive components. Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy. Active modalities should be region-specific (targeting

the cervical, thoracic, or lumbar spine) and consist of physical therapy, a physician-supervised home exercise program**, or chiropractic care.^{3, 4, 20}

****Home Exercise Program (HEP)** - The following **two elements are required** to meet guidelines for completion of conservative therapy:

- Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor^{4, 5, 21} ; **AND**
- Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (~~i.e. e.g.~~, increased pain or inability to physically perform exercises). Closure of medical offices, closure of therapy offices, patient inconvenience, or noncompliance without explanation does not constitute “inability to complete” HEP.^{3, 4}

Terminology: Paravertebral Facet Joint Denervation, Radiofrequency Neurolysis, Destruction Paravertebral Facet Joint Nerve, Facet Joint Rhizotomy, Facet Neurolysis, Medial Branch Radiofrequency Neurolysis, Medial Branch Radiofrequency Neurotomy or Radiofrequency Denervation.

POLICY HISTORY

Date	Summary
2023	—
May 2022	<ul style="list-style-type: none"> Added note to clarify when INITIAL injection requirements must be met for approval Added region specific wording to conservative treatment requirement (e.g., conservative therapy targeting the requested spinal region) Clarified average pain levels Added Exclusions section, including Denervation of any nerves other than medial branch nerves (i.e., sacroiliac joint denervation, sacral lateral branch denervation, etc.) Increased interval time frame from 2 weeks to 1 month for unilateral rf denervations performed at same level Increased interval time from from 2 weeks to 1 month for 2nd side denervation procedures Updated Contraindication Section Clarified lack of medical necessity of performing multiple pain procedures on same DOS
June 2021	No change

October 2020	<ul style="list-style-type: none"> • Added to Frequency: Second side denervation procedures performed within 2 weeks of the first side do not require additional documentation during the interval. • Updated Home Exercise Program section to include: Closure of medical offices, closure of therapy offices, patient inconvenience, or noncompliance without explanation, does not constitute 'inability to complete' HEP • Modified: Pain causing functional disability or a pain level of ≥ 6 on a scale of 0 to 10 prior to each radiofrequency procedure, including radiofrequency procedures done unilaterally on different days
October 2019	Added: All procedures must be performed using fluoroscopic or CT guidance
November 2018	<ul style="list-style-type: none"> • Frequency: Changed limit to 'per region' instead of 'per facet joint' • Overview section: Removed examples of yoga, Tai Chi, aerobic exercise from HEP • Added and updated references

REFERENCES

1. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. Apr 2013;16(2 Suppl):S49-283.
2. Manchikanti L, Boswell MV, Singh V, et al. Comprehensive evidence-based guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician*. Jul-Aug 2009;12(4):699-802.
3. Summers J. International Spine Intervention Society Recommendations for treatment of Cervical and Lumbar Spine Pain. 2013.
4. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
5. Sculco AD, Paup DC, Fernhall B, Sculco MJ. Effects of aerobic exercise on low back pain patients in treatment. *Spine J*. Mar-Apr 2001;1(2):95-101. doi:10.1016/s1529-9430(01)00026-2
6. Weininger M, Mills JC, Rumboldt Z, Bonaldi G, Huda W, Cianfoni A. Accuracy of CT guidance of lumbar facet joint block. *AJR Am J Roentgenol*. Mar 2013;200(3):673-6. doi:10.2214/ajr.12.8829
7. Amrhein TJ, Joshi AB, Kranz PG. Technique for CT Fluoroscopy-Guided Lumbar Medial Branch Blocks and Radiofrequency Ablation. *AJR Am J Roentgenol*. Sep 2016;207(3):631-4. doi:10.2214/ajr.15.15694
8. Health technology reviews: facet neurotomy. Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. <http://hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/facet-neurotomy>
9. Facet neurotomy. Washington State Health Care Authority. Updated May 16, 2014. Accessed September 22, 2022. [http://hca.wa.gov/assets/program/052714_facet_final_findings_decision\[1\].pdf](http://hca.wa.gov/assets/program/052714_facet_final_findings_decision[1].pdf)
10. Facet neurotomy: assessing signals for update. Washington State Health Care Authority. Updated May 28, 2020. Accessed September 22, 2022. <http://hca.wa.gov/assets/program/facet-neurotomy-assessing-signals-update-20200528.pdf>
11. About the Health Care Authority (HCA). Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. <http://hca.wa.gov/about-hca>
12. Kim BY, Concannon TA, Barboza LC, Khan TW. The Role of Diagnostic Injections in Spinal Disorders: A Narrative Review. *Diagnostics (Basel)*. Dec 9 2021;11(12)doi:10.3390/diagnostics11122311
13. Manchikanti L, Boswell MV, Singh V, Pampati V, Damron KS, Beyer CD. Prevalence of facet joint pain in chronic spinal pain of cervical, thoracic, and lumbar regions. *BMC Musculoskelet Disord*. 2004;5:15-15. doi:10.1186/1471-2474-5-15
14. Ghormley RK. Low back pain: with special reference to the articular facets, with presentation of an operative procedure. *JAMA*. 1933;101(23):1773-1777.
15. Gellhorn AC, Katz JN, Suri P. Osteoarthritis of the spine: the facet joints. *Nat Rev Rheumatol*. 2013;9(4):216-224. doi:10.1038/nrrheum.2012.199

16. Kallakuri S, Li Y, Chen C, Cavanaugh JM. Innervation of cervical ventral facet joint capsule: Histological evidence. *World J Orthop*. Feb 18 2012;3(2):10-4. doi:10.5312/wjo.v3.i2.10
17. Li W, Gong Y, Liu J, et al. Peripheral and Central Pathological Mechanisms of Chronic Low Back Pain: A Narrative Review. *J Pain Res*. 2021;14:1483-1494. doi:10.2147/jpr.S306280
18. Lee DW, Pritzlaff S, Jung MJ, et al. Latest Evidence-Based Application for Radiofrequency Neurotomy (LEARN): Best Practice Guidelines from the American Society of Pain and Neuroscience (ASPN). *J Pain Res*. 2021;14:2807-2831. doi:10.2147/jpr.S325665
19. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology*. Apr 2010;112(4):810-33. doi:10.1097/ALN.0b013e3181c43103
20. American College of Radiology. ACR Appropriateness Criteria® Low Back Pain. American College of Radiology (ACR). Updated 2021. Accessed August 2, 2022. <https://acsearch.acr.org/docs/69483/Narrative/>
21. Durmus D, Unal M, Kuru O. How effective is a modified exercise program on its own or with back school in chronic low back pain? A randomized-controlled clinical trial. *J Back Musculoskelet Rehabil*. 2014;27(4):553-61. doi:10.3233/bmr-140481

ADDITIONAL RESOURCES

- ~~1. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology*. Apr 2010;112(4):810-33. doi:10.1097/ALN.0b013e3181c43103~~
- ~~2. Chou R, Atlas SJ, Stanos SP, Rosenquist RW. Nonsurgical interventional therapies for low back pain: a review of the evidence for an American Pain Society clinical practice guideline. *Spine (Phila Pa 1976)*. May 1 2009;34(10):1078-93. doi:10.1097/BRS.0b013e3181a103b1~~
- ~~3. Datta S, Lee M, Falco FJ, Bryce DA, Hayek SM. Systematic assessment of diagnostic accuracy and therapeutic utility of lumbar facet joint interventions. *Pain Physician*. Mar-Apr 2009;12(2):437-60.~~
- ~~4. Ghormley RK. Low back pain: with special reference to the articular facets, with presentation of an operative procedure. *JAMA*. 1933;101(23):1773-1777.~~
- ~~5. Henschke N, Kuijpers T, Rubinstein SM, et al. Injection therapy and denervation procedures for chronic low back pain: a systematic review. *Eur Spine J*. Sep 2010;19(9):1425-49. doi:10.1007/s00586-010-1411-0~~
- ~~6. Muhlner SB. Review article: radiofrequency neurotomy for the treatment of sacroiliac joint syndrome. *Curr Rev Musculoskelet Med*. Mar 2009;2(1):10-4. doi:10.1007/s12178-008-9038-z~~

~~Reviewed / Approved by NIA Clinical Guideline Committee~~

POLICY HISTORY

<u>Date</u>	<u>Summary</u>
<u>May 2023</u>	<ul style="list-style-type: none">• <u>Moved RFA to RFA requirements to "Repeat Procedure" section</u>
<u>May 2022</u>	<ul style="list-style-type: none">• <u>Added note to clarify when INITIAL injection requirements must be met for approval</u>• <u>Added region-specific wording to conservative treatment requirement (e.g., conservative therapy targeting the requested spinal region)</u>• <u>Clarified average pain levels</u>• <u>Added Exclusions section, including Denervation of any nerves other than medial branch nerves (i.e., sacroiliac joint denervation, sacral lateral branch denervation, etc.)</u>• <u>Increased interval time frame from 2 weeks to 1 month for unilateral rf denervation's performed at same level</u>• <u>Increased interval time from 2 weeks to 1 month for 2nd side denervation procedures</u>• <u>Updated Contraindication Section</u>• <u>Clarified lack of medical necessity of performing multiple pain procedures on same DOS</u>

Reviewed / Approved by NIA Clinical Guideline Committee

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