*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: JanuaryMay 2023**
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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.

SPECIAL NOTE

- Unilateral procedures ~~radiofrequency denervation's~~ performed at the same level(s) on the right vs left;
  - If performed within ~~within~~ 1 month of each other ~~would be considered a~~are counted as~~s~~ one procedure ~~toward the total number of radiofrequency procedures allowed per 12 months.~~
  - ~~There is no~~A minimum timeframe is not required between denervation procedures~~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 follow-up information to be submitted~~.~~

See Legislative Requirements for specific mandates in the State of Washington

INDICATIONS

PARAVERTEBRAL FACET JOINT DENERVATION/RADIOFREQUENCY NEUROLYSIS [1, 2, 3, 4]

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, disc herniation or radiculitis~~1, 2~~
- Pain causing functional disability or average pain level of ≥ 6 on a scale of 0 to 10 [1-3]
- Duration of pain of at least **3 months**~~1, 3~~
  - For radiofrequency ablation following diagnostic medial branch blocks, a positive response to at least one local anesthetic block 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 local anesthetic, but with insufficient sustained relief (less than ~~2~~ 3 months ~~relief~~duration) [5] documented as: ~~1 3~~
  - Continued pain, after the diagnostic relief period, causing functional disability or average pain level of > 6 on a scale of 0 to 10 related to the requested spinal region. [5]
- ~~o~~

- Failure ~~to respond to non-operative~~of conservative t~~herapy~~reatment* ~~targeting the requested spinal region~~ for a minimum of six (6) weeks in the last six (6) months ~~unless~~ a ~~the medical reason this treatment cannot be done is clearly documented~~[1-3]

  NOTE: Failure of conservative treatment is defined as one of the following:

  - Lack of meaningful improvement after a full course of treatment; **OR**
  - Progression or worsening of symptoms during treatment; **OR**
  - Documentation of a medical reason the member is unable to participate in the treatment (*Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute 'inability to complete' treatment*)

IMAGING GUIDANCE [5, 6, 4]

The facet joint is commonly identified under image guidance by Computed tomography (CT) or Fluoroscopy. Medial Branch Blocks are commonly identified by Fluoroscopy.

NOTE: All procedures must be performed using fluoroscopic or CT guidance[6,7]

REPEAT PROCEDURES [5, 6, 4]

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 0-10[1-3] related to the requested spinal region.
- 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]
- A maximum of 2 facet denervation procedures may~~be~~ 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 follow-up information to be submitted.~~

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 (e.g., holding anticoagulation therapy on two separate dates creates undue risk for the patient).

EXCLUSIONS

These requests are excluded from consideration under this guideline:

- Radiofrequency denervation of the sacroiliac joint and/or sacral lateral branches (S1, S2, S3)

CONTRAINDICATIONS

FACET JOINT DENERVATION [1, 3]

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

LEGISLATIVE REQUIREMENTS

State of Washington

- Washington State Health Care Authority Health Technology Assessment – 20140321B – Facet Neurotomy [7]~~8-10~~
  - Facet Neurotomy is a **covered benefit with conditions** consistent with the criteria identified in the reimbursement determination
  - 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**.

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 Ghormley[14] 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]~~

THERAPEUTIC PARAVERTEBRAL FACET JOINT DENERVATION (RADIOFREQUENCY NEUROLYSIS):

~~**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.

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 Treatment **[4, 8]**

~~-~~Non-operative treatment should include a multimodality approach consisting of at least one (1)~~A combination of~~ active and one (1) inactive components targeting the affected spinal region.

- ~~Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy.~~ Active ~~modalities~~ components
  - ~~should be region-specific (targeting the cervical, thoracic, or lumbar spine) and consist of p~~Physical therapy
  - Physician-supervised home exercise program**
  - Chiropractic care~~.~~ ~~[3, 4, 20]~~
- Inactive ~~components~~Modalities
  - ~~-~~M~~can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, m~~edications (e.g., NSAIDs, steroids, analgesics)~~,~~
  - ~~i~~Injections~~,~~ (e.g., epidural steroid injection, selective nerve root block) ~~and diathermy.~~
  - Medical Devices (e.g., TENS unit, bracing)

**Home Exercise Program (HEP) [4, 9]

~~-~~The following two elements are required to meet ~~guidelines for completion of~~ conservative therapy guidelines for HEP:~~:~~

- 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 (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.~~

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POLICY HISTORY

Date	Summary
January 2023	• Added Legislative Language for the State of Washington • Added section on image guidance • Adjusted conservative treatment language in body and background sections • Reduced background • Added table of contents • Updated references
May 2023	• Moved RFA to RFA requirements to "Repeat Procedure" section
May 2022	• 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 denervation's performed at same level • Increased interval time 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

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Reviewed / Approved by NIA Clinical Guideline Committee

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