POLICY STATEMENT:

I. Based upon our criteria and assessment of the peer-reviewed literature, percutaneous radiofrequency facet denervation has been medically proven to be effective and therefore medically appropriate for mechanical spinal pain and for pain originating from the following areas:

A. Cervical Facet Joint Nerves;
B. Thoracic Facet Joint Nerves; or
C. Lumbar Facet Joint Nerves.

Patients must meet all the following criteria:

A. Conventional therapy has been unsuccessful; typically some combination of analgesics, nonsteroidal anti-inflammatory drugs, opioids, physiotherapy, acupuncture, chiropractic, transcutaneous electrical nerve stimulation (TENS), locally applied heat and exercise;
B. Symptoms including pain or decreased or absent mobility have lasted more than 6 months;
C. Symptoms were alleviated with a trial local anesthetic block/diagnostic facet injection; and
D. Repeat procedures on the nerve are medically appropriate when previous radiofrequency facet procedure achieved at least 50% pain relief lasting at least 30 days.

II. Based upon our criteria and assessment of the peer reviewed literature, pulsed radiofrequency denervation has not been medically proven to be effective and is investigational for all indications.

Refer to Corporate Medical Policy #11.01.03 regarding Experimental and Investigational Services.

Refer to Corporate Medical Policy #7.01.87 regarding Spinal Injections (Epidural and Facet Injections) for Pain Management.

DESCRIPTION:

The facet joints (zygapophyseal joints) are located at the posterior aspect of the spine and are designed to provide stability and control motion between the vertebrae. These small joints are prone to injury, deterioration, and inflammation. There are a number of proposed causes of facet joint syndrome. The facet joints may be irritated from trauma, repetitive movements, or arthritic changes. It is very common to develop degenerative changes in facet joints after trauma to the spine, as a result of an injury to the intervertebral disc or secondary to degenerative disc disease. If the intervertebral disc is damaged and the cushioning effect of the disc is lost, the facet joints at that level will undergo more stress, which may result in degeneration of the facet joint. Diagnosis of facet joint pain is confirmed by response (pain alleviation) to nerve blocks with a least a 50% improvement on 2 positive blocks being required.

Percutaneous radiofrequency facet denervation is a low-risk means of treating “mechanical” pain syndromes in previously unoperated patients with back and/or leg pain. Under local anesthesia, needle placement is made under fluoroscopy to the facet (zygapophyseal) joint. The cannula is then redirected until contact with the bone is lost. Following the removal of the guide needle stylet, a thermal monitoring electrode with an exposed tip is passed, and the guide needle pulled back on the electrode beyond the skin. Electrostimulation is then performed and a lesion is made using a radiofrequency lesion generator. Control of the temperature over the nerve roots permits selective denervation of
the pain conduction fibers. The nerves regenerate, and repeat procedures are effective though it is not known how many times the procedure can be repeated or if the duration of relief will change.

Pulsed radiofrequency consists of short bursts of electrical current of high voltage in the radio frequency range but without heating the tissue enough to cause coagulation. It is suggested as a possibly safer alternative to thermal radiofrequency facet denervation. Temperatures do not exceed 42°C at the probe tip vs. temperatures in the 60s C. reached in thermal radiofrequency denervation, and tissues may cool between pulses. It is postulated that transmission across small unmyelinated nerve fibers is disrupted but not permanently damaged, while large myelinated fibers are not affected.

**RATIONALE:**

Radiofrequency facet denervation as a procedure does not require FDA approval. Several RF generators and probes have been cleared for marketing through the FDA’s 510(k) process.

Peer-reviewed literature reporting small randomized, controlled studies of the efficacy and safety of radiofrequency facet denervation as well as evidence from larger case series is sufficient to permit conclusions that the technology provides significant and sustained relief of pain with minimal side effects in appropriately selected patients. There is very limited literature on pulsed radiofrequency denervation. The mechanism of its action not completely understood, and published data is insufficient to draw conclusions about its efficacy.

**CODES:**

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>64633</td>
<td>Destruction by neurolytic agent, paravertebral facet joint nerves(s) with imaging guidance (fluoroscopy or CT); cervical or thoracic, single facet joint</td>
</tr>
<tr>
<td>64634</td>
<td>cervical or thoracic each additional facet joint</td>
</tr>
<tr>
<td>64635</td>
<td>lumbar or sacral, single facet</td>
</tr>
<tr>
<td>64636</td>
<td>lumbar or sacral, each additional facet joint</td>
</tr>
</tbody>
</table>

**CPT:** None

**HCPCS:** None

**ICD9:**

- 723.1 Neck pain
- 723.3 Cervicobrachial pain
- 724.1 Thoracic spine pain
- 724.2 Lumbar pain
- 724.3 Sciatic pain
- 729.2 Radicular (spinal root) pain

**ICD10:**

- M53.1 Cervicobrachial syndrome
- M54.10 Radiculopathy, site unspecified
- M54.18 Radiculopathy, sacral and sacrococcygeal region
- M54.2 Cervicalgia

*Proprietary Information of Excellus Health Plan, Inc.*
M54.30-M54.32  Sciatica (code range)
M54.40-M54.42  Lumbago with sciatica (code range)
M54.5        Low back pain
M54.6        Pain in thoracic spine
M79.2        Neuralgia and neuritis, unspecified

REFERENCES:


*Levin JH. Prospective, double-blind, randomized placebo-controlled trials in interventional spine: what the highest quality literature tells us. Spine J 2008 Sep 11 [Epub ahead of print].


*key article*

**KEY WORDS:**
Denervation, Facet, Radiofrequency.

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**CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS**

There is currently a Local Coverage Determination that addresses Facet Joint Injections, Medial Branch Blocks, and Facet Joint Radiofrequency Neurotomy (L35936). Please refer to the following LCD web site for Medicare Members: [https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35936&ContrId=298&ver=20&ContrVer=1&CntrctrSelected=298*1&Cntrctr=298&name=National+Government+Services%2c+Inc.+(13201%2c+A+and+B+and+HHH+MAC%2c+J+-+K)&s=All&DocType=Active&bc=AggAAAQAAAAAA%3d%3d&](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35936&ContrId=298&ver=20&ContrVer=1&CntrctrSelected=298*1&Cntrctr=298&name=National+Government+Services%2c+Inc.+(13201%2c+A+and+B+and+HHH+MAC%2c+J+-+K)&s=All&DocType=Active&bc=AggAAAQAAAAAA%3d%3d&)