



MASSACHUSETTS

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## Medical Policy

### Intraosseous Basivertebral Nerve Ablation

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#### Policy Number: 485

BCBSA Reference Number: N/A

#### Related Policies

- Automated Percutaneous and Percutaneous Endoscopic Discectomy, #[231](#)
- Percutaneous Intradiscal Electrothermal Annuloplasty, Radiofrequency Annuloplasty and Biacuplasty #482
- Decompression of the Intervertebral Disc Using Laser Energy (Laser Discectomy) or Radiofrequency Coblation (Nucleoplasty), #[271](#)

#### Policy

##### Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Intraosseous radiofrequency ablation of the basivertebral nerve (e.g., Intracept® system) for the treatment of vertebrogenic back pain is considered **MEDICALLY NECESSARY** in individuals 18 and over when all of the following are met:

- Chronic lower back pain >6 months, **and**
- Refractory to optimal nonsurgical medical management including but not limited to physical therapy and chiropractic therapy, epidural or facet injection therapy, lumbar exercise and low impact exercise programs, home use of heat/cold therapies, pharmacotherapy, cognitive support and recovery assurance, **and**
- Modic type I or II changes on MRI, endplate hypointensity (Type 1) or hyperintensity (Type 2) on T1 images plus hyperintensity on T2 images (Type 1) involving in the endplates between L3 and S1 as evidenced by inflammation, edema, disruption, and fissuring of the endplate, vascularized fibrous tissues within the adjacent marrow, and changes to the vertebral body marrow including replacement of normal bone marrow by fat.

Intraosseous radiofrequency ablation of the basivertebral nerve (e.g., Intracept® system) for the treatment of vertebrogenic back pain is considered **INVESTIGATIONAL** when any of the following are present:

- Evidence on imaging (MRI, flexion/extension radiographs, etc.) indicating that pain may be due to another condition including but not limited to lumbar stenosis, spondylolisthesis, segmental instability, disc herniation, degenerative scoliosis, or facet arthropathy or effusion with clinically suspected facet joint pain, **or**

- Metabolic bone disease (eg, osteoporosis), treatment of spine fragility fracture, trauma/compression fracture, **or**
- History of or active spinal cancer, **or**
- Spine infection or active systemic infection, **or** |
- Bleeding diathesis, **or**
- Neurogenic claudication, lumbar radiculopathy or radicular pain due to neurocompression (eg, HNP, stenosis), as primary symptoms, **or**
- Radiographic evidence of:
  - Lumbar/lumbosacral disc extrusion or protrusion >5mm at levels L3-S1;
  - Lumbar/lumbosacral spondylolisthesis > Grade 2 at any level;
  - Lumbar/lumbosacral spondylolysis at levels L3-S1;
  - Lumbar/lumbosacral facet arthrosis/effusion correlated with facet-mediated pain at levels L3-S1
- Patients with severe cardiac or pulmonary compromise, **or**
- Patients with implantable pulse generators (eg, pacemakers, defibrillators) or other electronic implants unless, **or**
- Pregnancy, **or**
- BMI >40.

## Prior Authorization Information

### Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

### Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is required.
Commercial PPO and Indemnity	Prior authorization is required.

\*Prior Authorization Request Form: Intraosseous Basivertebral Nerve Ablation Intracept® system

This form must be completed and faxed to: Medical and Surgical: 1-888-282-0780; Medicare Advantage: 1-800-447-2994.

[Click here for Intraosseous Basivertebral Nerve Ablation Intracept® system Prior Authorization Request Form MP #486](#)

## Requesting Prior Authorization Using Authorization Manager

Providers will need to use [Authorization Manager](#) to submit initial authorization requests for services. Authorization Manager, available 24/7, is the quickest way to review authorization requirements, request authorizations, submit clinical documentation, check existing case status, and view/print the decision letter. For commercial members, the requests must meet medical policy guidelines.

To ensure the service request is processed accurately and quickly:

- Enter the facility's NPI or provider ID for where services are being performed.
- Enter the appropriate surgeon's NPI or provider ID as the servicing provider, *not* the billing group.

## Authorization Manager Resources

Refer to our [Authorization Manager](#) page for tips, guides, and video demonstrations.

## CPT Codes / HCPCS Codes / ICD Codes

*Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.*

*Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.*

*The following codes are included below for informational purposes only; this is not an all-inclusive list.*

**The above medical necessity criteria MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:**

#### **CPT Codes**

<b>CPT codes:</b>	<b>Code Description</b>
64628	Thermal destruction of intraosseous basivertebral nerve, first 2 vertebral bodies
64629	Thermal destruction of intraosseous basivertebral nerve, each additional vertebral body

### **Description**

#### **Discogenic Low Back Pain**

Discogenic low back pain is a common, multifactorial pain syndrome that involves low back pain without radicular symptom findings, in conjunction with radiologically confirmed degenerative disc disease.

#### **Treatment**

Typical treatment includes conservative therapy with physical therapy and medication management, with potential for surgical decompression in more severe cases.

Vertebral body endplates have been proposed as a source of lower back pain, caused by intraosseous nerves. The basivertebral nerve enters the posterior vertebral body and sends branches to the superior and inferior endplates. Vertebrogenic pain, transmitted via the basivertebral nerve, has been purported to occur with endplate damage or degeneration.

### **Summary**

#### **Summary of Evidence**

For individuals who have vertebrogenic back pain who receive intraosseous ablation of basivertebral nerves, the evidence includes 2 RCTs (the SMART and INTRACEPT trials). Relevant outcomes are symptoms, functional outcomes, QOL, and treatment-related morbidity. The SMART trial did not find a difference in the Oswestry Disability Index between patients treated with basivertebral nerve ablation or sham control at 3 months using an intent-to-treat analysis. Although the per protocol analysis showed a significant difference; results for the per protocol population at 12 months were not significantly different. Additionally, 73% of patients in this trial crossed over to the active treatment group at 12 months and therefore, long-term comparative data are not available. The INTRACEPT trial found a significant difference in the Oswestry Disability Index and other pain scores between patients treated with basivertebral nerve ablation and standard care at 3 months.

In a 2, 3, and 5 year randomized controlled trial and follow up study published by Fischgrund et al (2020), multiple health outcome measures including low back pain, opioid use over 30 days post procedure, activity levels and quality of life measures demonstrated improvement. Clinically meaningful outcomes in function and pain were demonstrated beyond the 5-year follow up period with half of the patients reporting a 75% or greater reduction in pain as well as reduced need for ongoing injections and opioid use. In patients with type I or II modic changes on MRI, who have not responded to medical standards of care including but not limited to physical therapy and chiropractic therapy, epidural or facet injection therapy, lumbar exercise and low impact exercise programs, home use of heat/cold therapies,

pharmacotherapy, cognitive support and recovery assurance, Intracept provides sustained clinical benefits and reductions in pain. The international Society for the Advancement of Spine Surgery designated a level 1 evidence grade for the available randomized controlled trials and recommends the use of BVNA in carefully selected patients with vertebrogenic low back pain who are refractory to medical management. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

## Policy History

Date	Action
2/2024	New medically necessary and investigational indications added for Intraosseous Basivertebral Nerve ablation (Intracept) procedure. 2/2024.

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

## References

1. Fischgrund JS, Rhyne A, Franke J, et al. Intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: a prospective randomized double-blind sham-controlled multi-center study. *Eur Spine J.* May 2018; 27(5): 1146-1156. PMID 29423885
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4. Lorio M, Clerk-Lamallice O, Beall DP, Julien T. International Society for the Advancement of Spine Surgery Guideline-Intraosseous Ablation of the Basivertebral Nerve for the Relief of Chronic Low Back Pain. *Int J Spine Surg.* 2020 Feb 29;14(1):18-25. doi: 10.14444/7002. PMID: 32128298; PMCID: PMC7043835.
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12. McCormick ZL, Conger A, Smuck M, Lotz JC, Hirsch JA, Hickman C, Harper K, Burnham TR. Magnetic Resonance Imaging Characteristics Associated with Treatment Success from Basivertebral Nerve Ablation: An Aggregated Cohort Study of Multicenter Prospective Clinical Trials Data. *Pain Med.* 2022 Jul 20;23(Suppl 2):S34-S49. doi: 10.1093/pm/pnac093. PMID: 35856328