Intraosseous Basivertebral Nerve Ablation for low back pain

(i.e. Intracept system)

Date of Origin: 10/2026 **Last Review Date: 10/28/2026** **Effective Date: 1/1/2027**

Dates Reviewed: 10/2026

Developed By: Medical Necessity Criteria Committee

I. Description

Chronic low back pain (CLBP) or vertebrogenic pain is a debilitating condition frequently encountered in pain management. CLBP lasting more than six months, is one of the most common causes of disability, absenteeism from work and excessive consumption of healthcare resources worldwide. Low back pain in advanced osteopenia and osteoporosis continues to challenge providers in offering the best analgesia for this growing population. Pain management and disease altering therapy remain a difficult task leading to costly outcomes secondary to extensive medical therapy. Among many causes of CLBP, a few etiologies that exist are muscular related pain, facet joint pain, discogenic pain, spinal canal stenosis, failed back surgery syndrome and sacroiliitis. A common, yet misdiagnosed, pathologic cause of low back pain can be localized to vertebral endplate damage secondary to progressive disc degeneration, known as vertebrogenic back pain.

Evidence supports a modes and selectively applicable benefit rather than definitive effectiveness for all low back pain. A 225-patient sham-controlled trial found a 20.5-point improvement in the Oswestry Disability Index after basivertebral nerve ablation versus 15.2 points after sham treatment at three months. The between-group difference was below the trial's prespecified threshold for clinical significance. A study by Fras et al. demonstrated that human basivertebral nerve contains Substance P-positive nerve fibers, supporting its role as a nociceptive pathway within the vertebral body. These findings provided a biological basis for targeting the basivertebral nerve in patients with vertebrogenic low back pain. Becker et al conducted a prospective pilot study of 16 patients with chronic low back pain and Modic type 1 or 2 changes treated with basivertebral nerve ablation. At 12 months, significant improvements in disability, pain, and physical function were maintained compared with baseline, providing early clinical evidence supporting BVNA for vertebrogenic pain.

On another prospective pilot study of 16 patients with chronic vertebrogenic low back pain treated with basivertebral nerve ablation showed improvements in pain and disability through 12 months providing early clinical support for further investigation of the procedure[9].

The available evidence demonstrates clinically meaningful improvements in pain and function following implantation of the MISHA Knee System. However, evidence remains limited by nonrandomized comparative studies, a lack of completed randomized controlled trials, and limited long term safety and effectiveness data.

II. Criteria: CWQI HCS

A. Moda Health considers intraosseous nerve ablation for basivertebral chronic pain investigational and unproven therefore NOT covered for treatment of low back pain because current evidence is insufficient to establish long-term safety, efficacy, and improvement in net health outcomes.

III. Information Submitted with the Prior Authorization Request:

1. NA

IV. CPT or HCPC codes covered:

Codes	Description
64628	Thermal destruction of intraosseous basivertebral nerve, including all imaging guidance; first 2 vertebral bodies, lumbar or sacral
64629	Thermal destruction of intraosseous basivertebral nerve, including all imaging guidance; each additional vertebral body, lumbar or sacral (List separately in addition to code for primary procedure)
C9752	Destruction of intraosseous basivertebral nerve, first two vertebral bodies, including imaging guidance (e.g., fluoroscopy), lumbar/sacrum
C9753	Destruction of intraosseous basivertebral nerve, each additional vertebral body, including imaging guidance (e.g., fluoroscopy), lumbar/sacrum (list separately in addition to code for primary procedure)
22899	Unlisted procedure, spine [when used to report the Intracept procedure or cooled radiofrequency ablation]
27299	Unlisted procedure, pelvis or hip joint

V. CPT or HCPC codes NOT covered:

Codes	Description

V. Annual Review History

Review Date	Revisions	Effective Date
10/2026	New policy	1/1/2027

VI. References

1. Nowsu et al 2023: The Effectiveness of Intraosseous Basivertebral Nerve Ablation in the Treatment of Nonradiating Vertebrogenic Pain: A Systematic Review. Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10075185/
2. Lopez DJ, Peralta RA, Anijar, L 2025: Intraosseous Basivertebral Nerve Ablation in the Treatment of Vertebrogenic Back Pain Secondary to Advanced Osteopenia: A Case Report

3. Fischgrund JS, Rhyne A, Franke J, Sasso R, Kitchel S, Bae H, Yeung C, Truumees E, Schaufele M, Yuan P, Vajkoczy P, DePalma M, Anderson DG, Thibodeau L, Meyer B (2018).
4. Intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: a prospective randomized double-blind sham-controlled multi-center study.
5. Lorio M, Clerk-Lamalice O, Rivera M, Lewandrowski KU. ISASS Policy Statement 2022: Literature Review of Intraosseous Basivertebral Nerve Ablation. International Journal of Spine Surgery. 2022;16(6):1084-1094. This updated review summarizes available clinical trial data and long-term outcomes. Retrieved from https://www.ijssurgery.com/content/16/6/1084Sayed D, Naidu RK, Patel KV, et al. Best Practice Guidelines on the Diagnosis and Treatment of Vertebrogenic Pain with Basivertebral Nerve Ablation from the American Society of Pain and Neuroscience (ASPN). Journal of Pain Research. 2022;15:2801-2819. These guidelines provide recommendations regarding diagnosis, patient selection, and treatment considerations. Retrieved from https://pubmed.ncbi.nlm.nih.gov/36128549/
6. Becker S, Hadjipavlou A, Heggeness MH. Ablation of the basivertebral nerve for treatment of back pain: a clinical study. Spine J. 2017;17:218-23.
7. Fras C, Kravetz P, Mody D, Heggeness M. Substance P-containing nerves within the human vertebral body: an immunohistochemical study of the basivertebral nerve. Spine J. 2003;3:63–67.
8. Heggeness M, Becker S, Hadjipavlou A, et al. Ablation of the basivertebral nerve for the treatment of back pain: a pilot clinical study. Spine J. 2011;11:65S-66S.
9. Michalik A, Conger A, Smuck M, Maus T, McCormick Z. Intraosseous basivertebral nerve radiofrequency ablation for the treatment of vertebral body endplate low back pain: current evidence and future directions. Pain Med. 2021;22(Supplement_1):S24-S30.

Appendix 1 – Applicable Diagnosis Codes:

Codes	Description

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD):

Jurisdiction(s): 5, 8	NCD/LCD Document (s):

NCD/LCD Document (s):

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC