

Medical Policies



Policy Z-104

Number:

Policy Name: Basivertebral Nerve Ablation

Policy Type: Medical Policy Miscellaneous

Subtype:

Effective 09-15-2025 End Date: 11-02-2025

Date:

Description

Basivertebral nerve ablation is a minimally invasive radiofrequency ablative procedure that is intended to ablate or destroy the basivertebral nerve in the vertebral body to reduce chronic low back pain.

Policy Application

All claims submitted under this policy's section will be processed according to the policy effective date and associated revision effective dates in effect on the date of service.

Criteria

Coverage is subject to the specific terms of the member's benefit plan.

Basivertebral nerve ablation from L3 through S1 may be considered medically necessary when **ALL** of the following criteria have been met:

- The individual is skeletally mature; and
- The individual has chronic low back pain of at least six (6) months duration; and
- The individual has failed to respond to at least six (6) months of conservative treatment; and
- The individual's MRI demonstrates Modic change one (1) (MC1) or Modic change two (2) (MC2) in at least one (1) vertebral endplate at one (1) or more levels from L3 through S1.

The individual must receive at least 51 percent or greater benefit from the basivertebral nerve ablation prior to repeat procedure.

More than two (2) basivertebral nerve ablations per benefit year will be considered experimental/investigational and therefore non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

Basivertebral nerve ablation not meeting the criteria as indicated in this policy is considered experimental/investigational and therefore non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

Procedure Codes

64628	64629
-------	-------

Professional Statements and Societal Positions Guidelines

Not Applicable

Diagnosis Codes

Covered Diagnosis codes for Procedure Codes 64628 and 64629

M47.816	M47.817	M51.360	M51.361	M51.362	M51.369	M51.370
M51.371	M51.372	M51.379	M54.50	M54.51	M54.59	

CURRENT CODING

CPT:

64628	THERMAL DSTRJ INTRAOSSEOUS BVN 1ST 2 LMBR/SAC	Commercial
64629	THERMAL DSTRJ INTRAOSSEOUS BVN EA ADDL LMBR/SAC	Commercial
64628	THERMAL DSTRJ INTRAOSSEOUS BVN 1ST 2 LMBR/SAC	Medicaid Expansion
64629	THERMAL DSTRJ INTRAOSSEOUS BVN EA ADDL LMBR/SAC	Medicaid Expansion

References

- 1. Fischgrund JS, Rhyne A, Macadaeg K, Moore G, et al. Long-term outcomes following intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: 5-year treatment arm results from a prospective randomized double-blind sham-controlled multi-center study. *Eur Spine J.* 2020;29(8):1925-1934.
- 2. Fischgrund JS, Rhyne A, Franke J, Sasso R, 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.* 2018;27(5):1146-1156.
- 3. Fischgrund JS, Rhyne A, Franke J, Sasso R, et al. Intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: 2-year results from a prospective randomized double-blind sham-controlled multicenter study. *Int J Spine Surg.* 2019;13(2):110-119.
- 4. Khalil JG, Smuck M, Koreckij T, Keel J, et al; INTRACEPT trial investigators. A prospective, randomized, multicenter study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain. *Spine J.* 2019;19(10):1620-1632.
- 5. Smuck M, Khalil J, Barrette K, Hirsch JA, et al; INTRACEPT trial investigators. Prospective, randomized, multicenter study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: 12- month results. *Reg Anesth Pain Med.* 2021;46(8):683-693.
- 6. Markman JD, Rhyne AL, Sasso RC, Patel AA, et al. Association between opioid use and patient-reported outcomes in a randomized trial evaluating basivertebral nerve ablation for the relief of chronic low back pain. 2020;86(3):343-347.
- 7. Truumees E, Macadaeg K, Pena E, Arbuckle J 2nd, et al. A prospective, open- label, single-arm, multi-center study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain. *Eur Spine J.* 2019;28(7):1594-1602.
- 8. Urits I, Noor N, Johal AS, Leider J, et al. Basivertebral nerve ablation for the treatment of vertebrogenic pain. *Pain Ther.* 2021;10(1):39-53.
- 9. Tieppo Francio V, Sayed D. Basivertebral nerve ablation. 2021. In: StatPearls [Internet]. Treasure Island (FL): *StatPearls Publishing*; 2021.
- 10. De Vivo AE, D'Agostino G, D'Anna G, Al Qatami H, et al. Intra-osseous basivertebral nerve radiofrequency ablation (BVA) for the treatment of vertebrogenic chronic low back pain. 2021;63(5):809-815.
- 11. Kim HS, Adsul N, Yudoyono F, Paudel B, et al. Transforaminal epiduroscopic basivertebral nerve laser ablation for chronic low back pain associated with modic changes: A preliminary open-label study. Pain Res Manag. 2018;2018:6857983.
- 12. Lorio M, Clerk-Lamalice 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;14(1):18-25.
- 13. Michalik A, Conger A, Smuck M, Maus TP, McCormick ZL. Intraosseous basivertebral nerve radiofrequency ablation for the treatment of vertebral body endplate low back pain: Current evidence and future directions. *Pain Med.* 2021;22(Suppl 1):S24-S30.
- 14. Tieppo Francio V, Sherwood D, Twohey E, Barndt B, et al. Developments in minimally invasive surgical options for vertebral pain: Basivertebral nerve ablation a narrative review. *J Pain Res.* 2021;14:1887-1907.
- 15. Conger A, Schuster NM, Cheng DS, Sperry BP, et al. The effectiveness of intraosseous basivertebral nerve radiofrequency neurotomy for the treatment of chronic low back pain in patients with modic changes: A systematic review. *Pain Med.* 2021;22(5):1039-1054.
- 16. Hayes, Inc. Hayes Evolving Evidence Review. *Intracept intraosseous nerve ablation system (Relievant Medsystems Inc.) for treatment of adults with low back pain*. Lansdale, PA: Hayes, Inc.; 09/28/2023
- 17. Nwosu M, Agyeman WY, Bisht A, et al. The effectiveness of intraosseous basivertebral nerve ablation in the treatment of nonradiating vertebrogenic pain: a systematic review. *Cureus*. 2023;15(4):e37114.

- 18. Conger A, Burnham TR, Clark T, Teramoto M, McCormick ZL. The effectiveness of intraosseous basivertebral nerve radiofrequency ablation for the treatment of vertebrogenic low back pain: an updated systematic review with single-arm meta-analysis. *Pain Med.* 2022;23(Suppl 2):S50-S62.
- 19. McCormick ZL, Curtis T, Cooper A, Wheatley M, Smuck M. Low back pain- related healthcare utilization following intraosseous basivertebral nerve radiofrequency ablation: a pooled analysis from three prospective clinical trials. *Pain Med.* Published online August 29, 2023.

ND Committee Review

Internal Medical Policy Committee 11-23-2021 - Effective January 01, 2022

New policy for North Dakota with coding updates

- o Added: 64628, 64629
- *Removed:* Procedure Code 22899
- o Removed: Outpatient HCPCS (C codes) C9752 and C9753

Internal Medical Policy Committee 01-20-22 Coding update - Effective January 01, 2022

• Added Diagnosis code: 54.59

Internal Medical Policy Committee 9-12-2023 Annual Review -no changes in criteria

Internal Medical Policy Committee 1-16-2024 Revision - Effective March 04, 2024

- o Updated references; and
- o Added bullet: The individual is skeletally mature

Internal Medical Policy Committee 9-17-2024 Coding update - Effective October 01, 2024

- o Removed diagnosis codes M51.36 and M51.37; and
- Added diagnosis codes M51.360; M51.361; M51.362; M51.369; M51.370; M51.371; M51.372; M51.379; and
- Added Policy Application

Disclaimer

Current medical policy is to be used in determining a Member's contract benefits on the date that services are rendered. Contract language, including definitions and specific inclusions/exclusions, as well as state and federal law, must be considered in determining eligibility for coverage. Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information. Likewise, medical policy, which addresses the issue(s) in any specific case, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and the Company reserves the right to review and update medical policy periodically.