

# **Medical Policies**



Policy S-248

Number:

Policy Name: Nerve Ablation and Injection

Policy Type: Medical Policy Surgery

Subtype:

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

Date:

# Description

Nerve radiofrequency ablation (RFA) is a minimally invasive method that involves use of heat and coagulation necrosis to destroy tissue.

Nerve injections also known as nerve blocks are minimally invasive, this procedure involves the injection of an anesthetic agent and/or steroid to control pain and inflammation.

Nerve cryoablation is a procedure that uses cold to destroy/damage a nerve's myelin coating therefore blocking the pain signal.

## **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 processing, regardless of service date.

## Criteria

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

## Genicular Nerve Radiofrequency Ablation

The use of genicular nerve radiofrequency ablation is considered not medically necessary.

#### Procedure Code

64624

## Genicular Nerve Block/Injection

Intraoperative genicular nerve blocks may be considered medically necessary when used for post-operative pain management.

The use of genicular nerve blocks outside the intraoperative period are considered not medically necessary.

### **Procedure Code**

64454

## **Nerve Cryoablation**

The following uses of cryoablation are 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:

- Upper extremity distal/peripheral nerve cryoablation; or
- Lower extremity distal/peripheral nerve cryoablation; or
- Other truncal nerve cryoablation; or
- Nerve plexus cryoablation.

#### **Procedure Codes**

0440T	0441T	0442T
-------	-------	-------

## Sacroiliac Joint Radiofrequency Ablation

The use of sacroiliac joint radiofrequency ablation 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 Code**

64625

# **Professional Statements and Societal Positions Guidelines**

American Society of Pain and Neuroscience (2021)

The American Society of Pain and Neuroscience (2021) issued consensus guidelines using U.S. Preventive Services Task Force (USPSTF) grading criteria on the use of RFA to treat various pain conditions. The guidelines stated that genicular RFA may be used for the treatment of osteoarthritis-related and post-surgical knee joint

pain (Grade B) and may be selectively offered for the treatment of occipital neuralgia pain when greater or lesser nerves have been identified as the etiology of pain via diagnostic blocks (Grade C).

In 2021, the American Society of Pain and Neuroscience published practice a guideline on radiofrequency neurotomy.

All of the workgroup members utilized radiofrequency neurotomy in clinical practice. A consensus statement, based on Grade II-1 evidence (well-designed, controlled, nonrandomized clinical trial), was that 'lateral branch radiofrequency neurotomy may be used for the treatment of posterior sacral ligament and joint pain following positive response to appropriately placed diagnostic blocks.'

### American Academy of Orthopaedic Surgeons (2021)

In 2021, the American Academy of Orthopaedic Surgeons published a clinical practice guideline, endorsed by the American Association of Hip and Knee Surgeons and the American Physical Therapy Association, on management of osteoarthritis (OA) of the knee. The guideline did not specifically address RFA or cryoneurolysis but did include a guideline statement on denervation therapy that included various ablation techniques (e.g., RFA, cryoneurolysis, thermal ablation and chemical ablation). The guideline stated, 'denervation therapy may reduce pain and improve function in individuals with symptomatic osteoarthritis of the knee' (strength of recommendation: limited).

#### Association of Extremity Nerve Surgeons (2020)

The Association of Extremity Nerve Surgeons issued practice guidelines in 2020 which drew the following conclusions:

We do not recommend ablation in the primary treatment of Intermetatarsal Nerve Entrapment ('Morton's Neuroma'). Radiofrequency ablation has use in the lower extremity but must be done with caution as this procedure has the potential for thermal necrosis of the adjacent tissues. Judicious use of fluoroscopy and other visualization techniques is advised while utilizing radiofrequency ablation...further research in this technique is needed.

Cryoablation (cryotherapy) should be used with extreme caution, as the amount of literature in the lower extremity is limited. If cryotherapy is used, it should ideally be performed with an open technique rather than percutaneously for optimal results.

# **Diagnosis Codes**

Not Applicable

#### **CURRENT CODING**

#### CPT:

0440T	ABLTJ PERC CRYOABLTJ IMG GDN UXTR/PERPH NERVE	Medicaid Expansion
0441T	ABLTJ PERC CRYOABLTJ IMG GDN LXTR/PERPH NERVE	Medicaid Expansion
0442T	ABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRV	Medicaid Expansion

64454INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMGMedicaid Expansion64624DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMGMedicaid Expansion64625RADIOFREQUENCY ABLTJ NRV NRVTG SI JT W/IMG GDNMedicaid Expansion0440TABLTJ PERC CRYOABLTJ IMG GDN UXTR/PERPH NERVECommercial0441TABLTJ PERC CRYOABLTJ IMG GDN LXTR/PERPH NERVECommercial0442TABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRVCommercial64454INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMGCommercial64624DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMGCommercial64625RADIOFREQUENCY ABLTJ NRV NRVTG SI JT W/IMG GDNCommercial			
GENICULAR NERVE W/IMG  64625  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT Medicaid Expansion W/IMG GDN  0440T  ABLTJ PERC CRYOABLTJ IMG GDN Commercial UXTR/PERPH NERVE  0441T  ABLTJ PERC CRYOABLTJ IMG GDN Commercial LXTR/PERPH NERVE  0442T  ABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRV  Commercial  INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMG  64624  DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMG  64625  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT Commercial	64454	_	Medicaid Expansion
W/IMG GDN  0440T  ABLTJ PERC CRYOABLTJ IMG GDN UXTR/PERPH NERVE  0441T  ABLTJ PERC CRYOABLTJ IMG GDN LXTR/PERPH NERVE  0442T  ABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRV  64454  INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMG  64624  DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMG  64625  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT Commercial	64624		Medicaid Expansion
UXTR/PERPH NERVE  0441T  ABLTJ PERC CRYOABLTJ IMG GDN LXTR/PERPH NERVE  0442T  ABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRV  64454  INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMG  Commercial  Commercial  Commercial  Commercial  Commercial  Commercial  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT  Commercial	64625		Medicaid Expansion
LXTR/PERPH NERVE  0442T  ABLTJ PERC CRYOABLTJ IMG GDN NRV PLEX/TRNCL NRV  64454  INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMG  DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMG  64625  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT Commercial	0440T		Commercial
PLEX/TRNCL NRV  64454 INJECTION AA&/STRD GENICULAR NRV BRANCHES W/IMG  Commercial  Commercial  Commercial  Commercial  Commercial  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT  Commercial	0441T		Commercial
BRANCHES W/IMG  64624  DESTRUCTION NEUROLYTIC AGT GENICULAR NERVE W/IMG  Commercial  64625  RADIOFREQUENCY ABLTJ NRV NRVTG SI JT  Commercial	0442T		Commercial
GENICULAR NERVE W/IMG  64625 RADIOFREQUENCY ABLTJ NRV NRVTG SI JT Commercial	64454	_	Commercial
	64624		Commercial
	64625		Commercial

## References

- 1. El-Hakeim E, Elawamy A, Kamel E, et al. Fluoroscopic guided radiofrequency of genicular nerves for pain alleviation in chronic knee osteoarthritis: A single- blinded randomized controlled trial. *Pain Physician*. 2018;21:169-177.
- 2. Davis T, Loudermilk E, DePalma M, et al. Prospective, multicenter, randomized, crossover clinical trial comparing the safety and effectiveness of cooled radiofrequency ablation with corticosteroid injection in the management of knee pain from osteoarthritis. *Reg Anesth Pain Med.* 2018;43(1):84-91.
- 3. Kidd VD, Strum SR, Strum DS, et al. Genicular nerve radiofrequency ablation for painful knee arthritis: The why and the how. *JBJS Essent Surg Tech.* 2019;9(1):e10.
- 4. Kapural L, Lee N, Neal K, et al. Long-term retrospective assessment of clinical efficacy of radiofrequency ablation of the knee using a cooled radiofrequency system. *Pain Physician*. 2019;22(5):489.
- 5. Jamison DE, Cohen SP. Radiofrequency techniques to treat chronic knee pain: A comprehensive review of anatomy, effectiveness, treatment parameters, and patient selection. *J Pain Res.* 2018;11:1879.
- 6. Hayes Inc. Health Technology Assessment. *Cooled Radiofrequency Ablation with the Coolief Cooled RF* (Avanos Medical Inc.) System for Osteoarthritis of the Knee. Lansdale, PA.: Hayes, Inc.: 02/21/2020.
- 7. Hunter C, Davis T, Lourdermilk E, Kapural L, DePalma M. Cooled radiofrequency ablation treatment of the genicular nerves in the treatment of osteoarthritic knee pain: 18- and 24-Month results. *Pain Practice*. 2020;20(3):238-246.
- 8. Chen A, Mullen K, Casambre F, Visvabharathy V, Brown G. Thermal nerve radiofrequency ablation for the nonsurgical treatment of knee osteoarthritis: A systematic literature review. *J Am Acad Orthop Surg.* 2021;29(9):387-396.
- 9. Hayes, Inc. Hayes Health Technology Assessment. *Genicular Nerve Block for the Management of Knee Pain*. Lansdale, PA: Hayes, Inc.; 07/01/2021.

- 10. Hayes, Inc. Hayes Health Technology Assessment. *Radiofrequency Nerve Ablation for the Management of Osteoarthritis of the Knee*. Lansdale, PA: Hayes, Inc.; 12/22/2020.
- 11. Hayes, Inc. Hayes Health Technology Assessment. *Radiofrequency Ablation For Sacroiliac Joint Denervation For Chronic Low Back Pain*. Lansdale, PA: Hayes, Inc.; 08/26/2021.
- 12. Oladeji LO, Cook JL. Cooled radio frequency ablation for the treatment of osteoarthritis-related knee pain: Evidence, indications, and outcomes. *J Knee Surg.* 2019;32(1):65-71.
- 13. Jamison DE, Cohen SP. Radiofrequency techniques to treat chronic knee pain: A comprehensive review of anatomy, effectiveness, treatment parameters, and patient selection. *J Pain Res.* 2018;11:1879-1888.
- 14. Chen AF, Mullen K, Casambre F, Visvabharathy V, Brown GA. Thermal nerve radiofrequency ablation for the nonsurgical treatment of knee osteoarthritis: A systematic literature review. *J Am Acad Orthop Surg.* 2021;29(9):387-396.
- 15. Sarı S, Aydın ON, Turan Y, Özlülerden P, Efe U, Kurt Ömürlü İ. Which one is more effective for the clinical treatment of chronic pain in knee osteoarthritis: Radiofrequency neurotomy of the genicular nerves or intra-articular injection? *Int J Rheum Dis.* 2018;21(10):1772-1778.
- 16. Davis T, Loudermilk E, DePalma M, et al. Prospective, multicenter, randomized, crossover clinical trial comparing the safety and effectiveness of cooled radiofrequency ablation with corticosteroid injection in the management of knee pain from osteoarthritis. *Reg Anesth Pain Med.* 2018;43(1):84-91.
- 17. Xiao L, Shu F, Xu C, et al. Highly selective peripheral nerve radio frequency ablation for the treatment of severe knee osteoarthritis. *Exp Ther Med.* 2018;16(5):3973-3977.
- 18. Davis T, Loudermilk E, DePalma M, et al. Twelve-month analgesia and rescue, by cooled radiofrequency ablation treatment of osteoarthritic knee pain: Results from a prospective, multicenter, randomized, cross-over trial. *Reg Anesth Pain Med.* 2019 Feb 16:rapm-2018-100051.
- 19. Chen AF, Khalouf F, Zora K, et al. Cooled radiofrequency ablation provides extended clinical utility in the management of knee osteoarthritis: 12-month results from a prospective, multi-center, randomized, cross-over trial comparing cooled radiofrequency ablation to a single hyaluronic acid injection. *BMC Musculoskelet Disord*. 2020;21(1):363.
- 20. Elawamy A, Kamel EZ, Mahran SA, Abdellatif H, Hassanien M. Efficacy of genicular nerve radiofrequency ablation versus intra-articular platelet rich plasma in chronic knee osteoarthritis: A single-blind randomized clinical trial. *Pain Physician*. 2021;24(2):127-134.
- 21. Kim DH, Choi SS, Yoon SH, et al. Ultrasound-guided genicular nerve block for knee osteoarthritis: A double-blind, randomized controlled trial of local anesthetic alone or in combination with corticosteroid. *Pain Physician.* 2018;21(1):41-52.
- 22. Yilmaz V, Umay E, Gundogdu I, Aras B. The comparison of efficacy of single intraarticular steroid injection versus the combination of genicular nerve block and intraarticular steroid injection in patients with knee osteoarthritis: A randomised study. *Musculoskelet Surg.* 2021;105(1):89-96.
- 23. Cankurtaran D, Karaahmet OZ, Yildiz SY, Eksioglu E, Dulgeroglu D, Unlu E. Comparing the effectiveness of ultrasound guided versus blind genicular nerve block on pain, muscle strength with isokinetic device, physical function and quality of life in chronic knee osteoarthritis: A prospective randomized controlled study. *Korean J Pain.* 2020;33(3):258-266.
- 24. Fitzpatrick B, Cowling M, Poliak-Tunis M, Miller K. Effect of genicular nerve radiofrequency ablation for knee osteoarthritis: A retrospective chart review. *WMJ*. 2021;120(2):156-159.
- 25. Fonkoue L, Steyaert A, Kouame JK, et al. A comparison of genicular nerve blockade with corticosteroids using either classical anatomical targets vs revised targets for pain and function in knee osteoarthritis: A double-blind, randomized controlled trial. *Pain Med.* 2021;22(5):1116-1126.
- 26. Chen CH, Weng PW, Wu LC, Chiang YF, Chiang CJ. Radiofrequency neurotomy in chronic lumbar and sacroiliac joint pain: A meta- analysis. *Medicine (Baltimore)*. 2019;98(26):e16230.
- 27. Schmidt GL, Bhandutia AK, Altman DT. Management of sacroiliac joint pain. *J Am Acad Orthop Surg.* 2018;26(17):610-616.
- 28. Yang AJ, Wagner G, Burnham T, McCormick ZL, Schneider BJ. Radiofrequency ablation for chronic posterior sacroiliac joint complex pain: A comprehensive review. *Pain Med.* 2021;22(Suppl 1):S9-S13.

- 29. McLean BC, Nguyen CD, Newman DP. Cryoablation of the infrapatellar branch of the saphenous nerve identified by non-invasive peripheral nerve stimulator for the treatment of non-surgical anterior knee pain: A case series and review of the literature. 2020;12(6):e8747.
- 30. Thomson L, Aujla RS, Divall P, Bhatia M. Non-surgical treatments for Morton's neuroma: A systematic review. *Foot Ankle Surg.* 2020;26(7):736-743.
- 31. Lee DW, Pritzlaff S, Jung MJ, et al. Latest evidence-based application for radiofrequency neurotomy(LEARN): Best practice guidelines from the American Society of Pain and Neuroscience (ASPN). *[Pain Res.* 2021;14:2807-2831.
- 32. Carlone AG, Grothaus O, Jacobs C, Duncan ST. Is cooled radiofrequency genicular nerve block and ablation a viable option for the treatment of knee osteoarthritis?. *Arthroplast Today*. 2021;7:220-224.
- 33. Chen CM, Lee JH, Yang MY, et al. Navigation-assisted full-endoscopic radiofrequency rhizotomy versus fluoroscopy-guided cooled radiofrequency ablation for sacroiliac joint pain treatment: Comparative study. *Neurospine*. 2023;20(1):141-149.
- 34. American Academy of Orthopaedic Surgeons Management of Osteoarthritis of the Knee (Non-Arthroplasty) Evidence-Based Clinical Practice Guideline. https://www.aaos.org/oak3cpg Published August 30, 2021
- 35. McCormick ZL, Patel J, Conger A, et al. The safety of genicular nerve radiofrequency ablation. *PainMed*. 2021;22(2):518-519.
- 36. Kolasinski SL, Neogi T, Hochberg MC, et al. 2019 American College of Rheumatology/Arthritis Foundation guideline for the management of osteoarthritis of the hand, hip, and knee. *Arthritis Rheumatol*. 2020;72(2):220-233.
- 37. Chappell ME, Lakshman R, Trotter P, et al. Radiofrequency denervation for chronic back pain: A systematic review and meta-analysis. *BMJ Open*. 2020;10(7): e035540.
- 38. Barrett SL, Nickerson DS, Radar A, et al. The Association of Extremity Nerve Surgeons. Clinical Practice Guidelines V 2.0 2020. Accessed June 4, 2023. <a href="https://www.aens.us/images/aens/AENS%20CPG%20-%202.0%20-%20FINAL.pd">https://www.aens.us/images/aens/AENS%20CPG%20-%202.0%20-%20FINAL.pd</a>
- 39. Rodriguez-Patarroyo FA, Cuello N, Molloy R, Krebs V, Turan A, Piuzzi NS. A guide to regional analgesia for Total Knee Arthroplasty. *EFORT Open Rev.* 2021;6(12):1181-1192.

# **ND Committee Review**

Internal Medical Policy Committee 7-22-2020 New Policy Effective September 7, 2020

Internal Medical Policy Committee 7-20-2021 Annual Review *Effective September 6, 2021* 

Internal Medical Policy Committee 5-24-2022 Revision Effective July 4, 2022

- *Changed* Title
- Added Procedure Codes 0440T; 0441T; 0442T; 64454 and 64625

Internal Medical Policy Committee 7-26-2023 Revision - Effective September 04, 2023

- Updated language in statement under Genicular Nerve Block/Injection; and
- Added statements under Professional Statements and Societal Positions; and
- o Updated references; and
- *Updated* grammar.

Internal Medical Policy Committee 7-16-2024 Annual Review-no changes in criteria Effective September 2, 2024

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.