

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

Investigational or experimental services are not covered. This includes any drug, device, procedure, or service provided under the investigational arm of a clinical trial or clinical study. These services are excluded from coverage under benefits.

Note: Percutaneous Intradiscal Electrothermal Annuloplasty, Radiofrequency Annuloplasty, Biacuplasty and Intraosseous Basivertebral Nerve Ablation is addressed separately in medical policy 00077.

Note: Facet Radiofrequency Denervation is addressed separately in medical policy 00199.

Note: Spinal Cord and Dorsal Root Ganglion Stimulators is addressed separately in medical policy 00260.

Note: Sacroiliac Joint Fusion (Percutaneous/Minimally Invasive Techniques) is addressed separately in medical policy 00558.

Services Are Considered Investigational

Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.

Based on review of available data, the Company considers radiofrequency ablation of peripheral nerves to treat pain associated with knee osteoarthritis or plantar fasciitis to be **investigational**.*

Based on review of available data, the Company considers cryoneurolysis of peripheral nerves to treat pain associated with knee osteoarthritis or total knee arthroplasty to be **investigational**.*

Based on review of available data, the Company considers radiofrequency ablation or cryoneurolysis of peripheral nerves to treat pain associated with occipital neuralgia or cervicogenic headache to be **investigational**.*

Based on review of available data, the Company considers diagnostic block performed before planned ablation to be **investigational**.*

Based on review of available data, the Company considers ablation of peripheral nerves to treat non-cancer pain in all other conditions, with the exception of facet joint pain (see medical policy 00199) to be **investigational**.*

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

Background/Overview

Nerve Radiofrequency Ablation

Nerve radiofrequency ablation (RFA) is a minimally invasive method that involves the use of heat and coagulation necrosis to destroy tissue. A needle electrode is inserted through the skin and into the tissue to be ablated. A high-frequency electrical current is applied to the target tissue and a small sphere of tissue is coagulated around the needle by the heat generated. It is theorized that the thermal lesioning of the nerve destroys peripheral sensory nerve endings, resulting in the alleviation of pain. Cooled RFA is a variation of nerve RFA using a water-cooled probe that applies more energy at the desired location without excessive heat diffusing beyond the area, causing less tissue damage away from the nerve (see Table 1). The goal of ablating the nerve is the same.

RFA is also distinguished from pulsed radiofrequency (RF) treatment, which has been investigated for different types of pain. The mechanism of action of pulsed RF treatment is uncertain but it is thought not to destroy the nerve. It does produce some degree of nerve destruction but is thought to cause less damage than standard RFA. Some studies refer to pulsed RF treatment as ablation.

For the indications assessed in this medical policy, nerve RFA should be distinguished from RF energy applied to areas other than the nerve to cause tissue damage. Some individuals have been treated for plantar fasciitis with a fasciotomy procedure using an RF device. This procedure does not ablate a specific nerve.

Table 1. Types of Radiofrequency Ablation

Type	Procedure	Tissue Temperature	Key Differences
Standard RFA	Electrode tip provides thermal energy for 90 – 130 seconds	70 – 90° C	Longer term pain relief but with more adjacent thermal tissue injury and limitation in size and shape of lesion.
Pulsed RFA	Non-ablative - provides 20 ms pulses every 30 seconds	42° C	Limits tissue damage but results in shorter duration of pain relief.
Cooled RFA	Water circulates through RF electrode to cool the tip	60° C	Larger lesion with limited thermal injury to tissue. Longer term pain relief.

RF: radiofrequency; RFA: radiofrequency ablation.

Adapted from Oladeji et al (2019)

Cryoneurolysis

Cryoneurolysis is being investigated to alleviate pain. Temperatures of -20° to -100°C applied to a nerve cause Wallerian (anterograde axonal) degeneration, with disruption of nerve structure and conduction but maintenance of the perineural and epineural elements of the nerve bundle. Wallerian

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

degeneration allows complete regeneration and recovery of nerve function in about 3 to 5 months. The iovera cryoablation system is a portable handheld device that applies percutaneous and targeted delivery of cold to superficial peripheral nerves.

FDA or Other Governmental Regulatory Approval

U.S. Food and Drug Administration (FDA)

A number of RF generators and probes for the peripheral nervous system have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. Some examples are listed in Table 2.

In 2017, the COOLIEF[®] Cooled Radiofrequency Probe (Avanos, previously known as Halyard Health) was cleared for marketing by the FDA through the 510(k) process to be used in conjunction with a radiofrequency generator to create lesions in nervous tissue (K163461). One of the indications is specifically for "creating radiofrequency lesions of the genicular nerves for the management of moderate to severe knee pain of more than 6 months with conservative therapy, including medication, in patients with radiologically-confirmed osteoarthritis (grade 2-4) and a positive response ($\geq 50\%$ reduction in pain) to a diagnostic genicular nerve block."

Table 2. Radiofrequency and Cryoneurolysis Devices

Device	Manufacturer	Clearance	Date	FDA Product Code
SInergy [®] †/Baylis Pain Management Probe	Kimberly-Clark/Baylis	K053082	2005	GXD
NeuroTherm [®] † NT 2000	NeuroTherm	K111576	2011	GXD
iovera	Pacira (formerly Myoscience)	K133453	2014	GXH
COOLIEF [®] † Cooled Radiofrequency Kit	Avanos (formerly Halyard Health)	K163236	2016	GXI
COOLIEF [®] † Cooled RF Probe	Avanos (formerly Halyard Health)	K163461	2017	GXI
Rulo [™] † Radiofrequency Lesion Probe	Epimed International	K190256	2019	GXI
Intrasept Intraosseous Nerve Ablation System	Relievant Medsystems, Inc	K222281	2022	GXI
Apex 6 Radiofrequency Lesion Generator	RF Innovations, Inc	K220122	2023	GXD

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

Rationale/Source

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. Food and Drug Administration approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, technology evaluation centers, reference to regulations, other plan medical policies, and accredited national guidelines.

Description

Radiofrequency ablation (RFA) and cryoneurolysis of nerves have been proposed as treatments for several different types of pain. RFA has been used to treat a number of clinical pain syndromes such as trigeminal neuralgia as well as cervical and lumbar pain. This review evaluates the application of RFA and cryoneurolysis in peripheral sites distant from the spine.

Summary of Evidence

For individuals who have knee osteoarthritis (OA) who receive radiofrequency ablation (RFA) of peripheral nerves, the evidence includes systematic reviews of randomized controlled trials (RCTs), RCTs with 24 to 200 individuals, and non-randomized comparative studies with up to 12 months of follow-up. Relevant outcomes include symptoms, functional outcomes, and quality of life (QOL). Knee OA is a common disorder in older adults. RFA of the genicular nerves has the potential to alleviate pain and improve function in this population, and might also delay or eliminate the need for total knee arthroplasty (TKA). At this time, there is high heterogeneity in methods and comparators. The systematic reviews generally found that RFA had a benefit on pain, function, and composite scores compared to the control treatments at 3 and 6-month follow-up; however, most estimates were determined to have moderate to high heterogeneity. The network meta-analysis compared multiple RFA modalities and found that cooled RFA had significantly improved efficacy for pain and function through 6 months follow-up compared with traditional or pulsed RFA. A small, double-blind RCT of bipolar RFA with genicular nerve block compared to genicular nerve block and sham RFA found no differences between groups for visual analog score (VAS) pain or the Western Ontario and McMaster Universities Arthritis Index (WOMAC) scores through 12 months follow-up. Given that OA of the knee is a common condition; adequately powered studies, preferably blinded with active and sham controls and follow-up of at least 12 months, is needed to determine the benefits and potential harms of this treatment. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have knee OA or TKA who receive cryoneurolysis of peripheral nerves, the evidence includes 2 RCTs with a total of 304 participants, a comparative, retrospective cohort study of 57 participants, and a registry study of 140 individuals. Relevant outcomes include symptoms, functional outcomes, and QOL. In one RCT, cryoneurolysis in individuals with knee OA resulted in a greater decrease in WOMAC pain score, WOMAC total score, and VAS score at 30 days compared with sham-treated controls. However, subsequent measurements showed no significant benefit of cryoneurolysis on WOMAC score at 60 days or VAS scores at 60 or 90 days. Another RCT investigated cryoneurolysis compared to standard of care for patients with knee OA who were planning to undergo TKA. Cryoneurolysis resulted in a lower rate of opioid consumption, a

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

reduction in numeric rating scale (NRS) pain scores, and Knee injury and Osteoarthritis Outcome Score for Joint Replacement (KOOS JR) functional performance at 12 weeks post discharge. The retrospective cohort study reported superiority of cryoneurolysis on the KOOS JR and Short Form-12 item (SF-12) mental score at 1 year follow-up; no significant differences were observed on the SF-12 physical score at 1 year follow-up or for any outcome at earlier 3 month assessment. A registry study found improved pain and lowered opioid use with cryoneurolysis prior to TKA; however, functional outcomes through 6 months were similar. Several technical issues including the optimal number of applications for each nerve, the duration of treatment, and the duration of thawing before moving the cannula have not been resolved. The most effective method for determining probe insertion location (eg, ultrasound-guided or based on anatomic landmarks) also needs to be established. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have plantar fasciitis who receive RFA of peripheral nerves, the evidence includes 2 RCTs and a meta-analysis. Relevant outcomes include symptoms, functional outcomes, and QOL. The meta-analysis pooled evidence from 2 RCTs and did not demonstrate a significant improvement in pain outcomes compared to the control group. The analysis revealed significant heterogeneity, and the overall quality of evidence was graded as low. One of the randomized trials only evaluated 17 individuals, and assessment of randomized outcomes was limited to 4 weeks post-treatment. A second RCT evaluated 36 individuals out to 12 weeks. Both trials found RFA associated with pain reduction, but to be more confident in the efficacy of this treatment, controlled trials with larger samples and longer follow-up would be necessary. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have occipital neuralgia or cervicogenic headache who receive RFA or cryoneurolysis of peripheral nerves, the evidence includes RCTs and systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, and QOL. No RCTs of RFA for chronic occipital neuralgia have been identified. Three RCTs of RFA for a cervicogenic headache have been published, none of which were high quality. Pain is a subjective, patient-reported measure that is particularly susceptible to a placebo effect. Randomized trials with sham or active-controls are needed to evaluate the efficacy of this treatment. One controlled trial found a temporary benefit of cryoneurolysis for cervicogenic headache, but the effect was not significantly better than injection of corticosteroid and local anesthetic. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Supplemental Information

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

American Academy of Orthopaedic Surgeons et al

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 patients with symptomatic osteoarthritis of the knee" (strength of recommendation: limited).

American College of Rheumatology and Arthritis Foundation

The 2019 Guidelines from the American College of Rheumatology and the Arthritis Foundation gave a conditional recommendation for radiofrequency ablation for the treatment of knee OA. The recommendation was based on evidence of a potential analgesic benefit, but the studies used heterogeneous techniques and there was a lack of long-term safety data.

American College of Foot and Ankle Surgeons

The American College of Foot and Ankle Surgeons (2018) issued consensus guidelines on the diagnosis and treatment of acquired infracalcaneal heel pain. The safety and efficacy of bipolar radiofrequency were listed as uncertain (neither appropriate nor inappropriate).

American Society of Pain and Neuroscience

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).

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

There is no national coverage determination. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers.

Ongoing and Unpublished Clinical Trials

Some currently ongoing and unpublished trials that might influence this review are listed in Table 3.

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

Table 3. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date
<i>Ongoing</i>			
NCT05920382	Radiofrequency Ablation for the Treatment of Post-knee Arthroplasty Chronic Pain	86	Dec 2027
NCT02915120	Ultrasound-Guided Pulsed Radiofrequency Of The Genicular Nerves In The Treatment Of Patients With Osteoarthritis Knee Pain: Randomized, Double-Blind, Placebo-Controlled Trial	142	Dec 2024
NCT06173830	Comparison of the Effectiveness of Physical Therapy With Ultrasound-Guided Radiofrequency Ablation of the Genicular Nerve in Patients With Chronic Knee Osteoarthritis	68	Apr 2024
NCT05840276	Cryoneurolysis Prior to Total Knee Arthroplasty for the Management of Postoperative Pain; A Randomized, Sham-controlled, Trial	100	Aug 2025
CT06094660	Patients With Knee Pain Caused by Osteoarthritis: Comparison of Conservative Medical Management With RadioFrequency Ablation or Chemical Neurolysis of the Genicular Nerves With Phenol	192	Nov 2026
<i>Unpublished</i>			
NCT04145011 ^a	A Prospective, Multi-center, Randomized, Single Blind Clinical Trial Comparing COOLIEF* Cooled Radiofrequency to Conventional Radiofrequency Ablation of the Genicular Nerves in the Management of Knee Pain in an Osteoarthritic Patient Population	153	Oct 2022

NCT: national clinical trial.

^a Industry sponsored or partially sponsored.

References

1. Chua NH, Vissers KC, Sluijter ME. Pulsed radiofrequency treatment in interventional pain management: mechanisms and potential indications-a review. *Acta Neurochir (Wien)*. Apr 2011; 153(4): 763-71. PMID 21116663
2. Oladeji LO, Cook JL. Cooled Radio Frequency Ablation for the Treatment of Osteoarthritis-Related Knee Pain: Evidence, Indications, and Outcomes. *J Knee Surg*. Jan 2019; 32(1): 65-71. PMID 30396206

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

3. 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. PMID 30271194
4. Michael JW, Schlüter-Brust KU, Eysel P. The epidemiology, etiology, diagnosis, and treatment of osteoarthritis of the knee. *Dtsch Arztebl Int.* Mar 2010; 107(9): 152-62. PMID 20305774
5. Chen AF, Mullen K, Casambre F, et al. Thermal Nerve Radiofrequency Ablation for the Nonsurgical Treatment of Knee Osteoarthritis: A Systematic Literature Review. *J Am Acad Orthop Surg.* May 01 2021; 29(9): 387-396. PMID 32701684
6. Choi WJ, Hwang SJ, Song JG, et al. Radiofrequency treatment relieves chronic knee osteoarthritis pain: a double-blind randomized controlled trial. *Pain.* Mar 2011; 152(3): 481-487. PMID 21055873
7. Sarı S, Aydın ON, Turan Y, et al. 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.* Oct 2018; 21(10): 1772-1778. PMID 27515095
8. Ray D, Goswami S, Dasgupta S, Ray S, Basu S: Intra-articular hyaluronic acid injection versus RF ablation of genicular nerve for knee osteoarthritis pain: A randomized, open-label, clinical study. *Indian J Pain* 2018;1:36-39.
9. 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.* Jan 2018; 43(1): 84-91. PMID 29095245
10. El-Hakeim EH, Elawamy A, Kamel EZ, et al. Fluoroscopic Guided Radiofrequency of Genicular Nerves for Pain Alleviation in Chronic Knee Osteoarthritis: A Single-Blind Randomized Controlled Trial. *Pain Physician.* Mar 2018; 21(2): 169-177. PMID 29565947
11. Shen WS, Xu XQ, Zhai NN, et al. Radiofrequency Thermocoagulation in Relieving Refractory Pain of Knee Osteoarthritis. *Am J Ther.* 2017; 24(6): e693-e700. PMID 26938761
12. 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.* Nov 2018; 16(5): 3973-3977. PMID 30344675
13. Liu J, Wang T, Zhu ZH. Efficacy and safety of radiofrequency treatment for improving knee pain and function in knee osteoarthritis: a meta-analysis of randomized controlled trials. *J Orthop Surg Res.* Jan 15 2022; 17(1): 21. PMID 35033150
14. Wu L, Li Y, Si H, et al. Radiofrequency Ablation in Cooled Monopolar or Conventional Bipolar Modality Yields More Beneficial Short-Term Clinical Outcomes Versus Other Treatments for Knee Osteoarthritis: A Systematic Review and Network Meta-Analysis of Randomized Controlled Trials. *Arthroscopy.* Jul 2022; 38(7): 2287-2302. PMID 35157969
15. Hunter C, Davis T, Loudermilk E, et al. Cooled Radiofrequency Ablation Treatment of the Genicular Nerves in the Treatment of Osteoarthritic Knee Pain: 18- and 24-Month Results. *Pain Pract.* Mar 2020; 20(3): 238-246. PMID 31605667
16. 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.* Jun 09 2020; 21(1): 363. PMID 32517739

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

17. Lyman J, Khalouf F, Zora K, et al. Cooled radiofrequency ablation of genicular nerves provides 24-Month durability in the management of osteoarthritic knee pain: Outcomes from a prospective, multicenter, randomized trial. *Pain Pract.* Jul 2022; 22(6): 571-581. PMID 35716058
18. Elawamy A, Kamel EZ, Mahran SA, et al. Efficacy of Genicular Nerve Radiofrequency Ablation Versus Intra-Articular Platelet Rich Plasma in Chronic Knee Osteoarthritis: A Single-Blind Randomized Clinical Trial. *Pain Physician.* Mar 2021; 24(2): 127-134. PMID 33740345
19. Malaithong W, Tontisirin N, Seangrungs R, et al. Bipolar radiofrequency ablation of the superomedial (SM), superolateral (SL) and inferomedial (IM) genicular nerves for chronic osteoarthritis knee pain: a randomized double-blind placebo-controlled trial with 12-month follow-up. *Reg Anesth Pain Med.* Dec 21 2022; 48(4): 151-60. PMID 36543391
20. Ma Y, Chen YS, Liu B, et al. Ultrasound-Guided Radiofrequency Ablation for Chronic Osteoarthritis Knee Pain in the Elderly: A Randomized Controlled Trial. *Pain Physician.* Mar 2024; 27(3): 121-128. PMID 38506679
21. Anwar S, Vardhan S, Aggarwal A, et al. Safety and Efficacy of Platelet-Rich Plasma versus Genicular Nerve Radiofrequency Ablation in Knee Osteoarthritis: An Open-Label, Prospective, Randomized, Clinical Trial. *Pain Physician.* May 2025; 28(3): 207-215. PMID 40464885
22. Kapural L, Minerali A, Sanders M, et al. Cooled Radiofrequency Ablation Provides Prolonged Pain Relief Compared to Traditional Radiofrequency Ablation: A Real-World, Large Retrospective Clinical Comparison from a Single Practice. *J Pain Res.* 2022; 15: 2577-2586. PMID 36068792
23. Wu BP, Grits D, Foorsov V, et al. Cooled and traditional thermal radiofrequency ablation of genicular nerves in patients with chronic knee pain: a comparative outcomes analysis. *Reg Anesth Pain Med.* Aug 03 2022. PMID 35922077
24. McCormick ZL, Patel J, Conger A, et al. The Safety of Genicular Nerve Radiofrequency Ablation. *Pain Med.* Feb 23 2021; 22(2): 518-519. PMID 33517427
25. Radnovich R, Scott D, Patel AT, et al. Cryoneurolysis to treat the pain and symptoms of knee osteoarthritis: a multicenter, randomized, double-blind, sham-controlled trial. *Osteoarthritis Cartilage.* Aug 2017; 25(8): 1247-1256. PMID 28336454
26. Mihalko WM, Kerkhof AL, Ford MC, et al. Cryoneurolysis before Total Knee Arthroplasty in Patients With Severe Osteoarthritis for Reduction of Postoperative Pain and Opioid Use in a Single-Center Randomized Controlled Trial. *J Arthroplasty.* May 2021; 36(5): 1590-1598. PMID 33279353
27. Nygaard NB, Koch-Jensen C, Vaegter HB, et al. Efficacy of Cryoneurolysis on Chronic Pain in Patients with Knee Osteoarthritis: A Double-blinded Randomized Controlled Sham Trial. *Anesthesiology.* Jun 01 2025; 142(6): 1114-1126. PMID 39883054
28. Lung BE, Karasavvidis T, Sharma AK, et al. Cryoneurolysis Is a Safe, Effective Modality to Improve Rehabilitation after Total Knee Arthroplasty. *Life (Basel).* Aug 29 2022; 12(9). PMID 36143381
29. Mont MA, Lin JH, Spitzer AI, et al. Cryoneurolysis Associated With Improved Pain, Function, and Sleep in Patients Following total Knee Arthroplasty: Use of a New Real-World Registry. *J Arthroplasty.* Jan 2025; 40(1): 92-101.e3. PMID 38942249
30. Gabriel RA, Ilfeld BM. Novel Methodologies in Regional Anesthesia for Knee Arthroplasty. *Anesthesiol Clin.* Sep 2018; 36(3): 387-401. PMID 30092936

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

31. Guimarães JS, Arcanjo FL, Leporace G, et al. Effects of therapeutic interventions on pain due to plantar fasciitis: A systematic review and meta-analysis. Clin Rehabil. Jun 2023; 37(6): 727-746. PMID 36571559
32. Wu YT, Chang CY, Chou YC, et al. Ultrasound-Guided Pulsed Radiofrequency Stimulation of Posterior Tibial Nerve: A Potential Novel Intervention for Recalcitrant Plantar Fasciitis. Arch Phys Med Rehabil. May 2017; 98(5): 964-970. PMID 28209507
33. Landsman AS, Catanese DJ, Wiener SN, et al. A prospective, randomized, double-blinded study with crossover to determine the efficacy of radio-frequency nerve ablation for the treatment of heel pain. J Am Podiatr Med Assoc. 2013; 103(1): 8-15. PMID 23328847
34. Kurtoglu A, Kochai A, Inanmaz ME, et al. Effectiveness of radiofrequency ablation for treatment of plantar fasciitis. Medicine (Baltimore). Mar 25 2022; 101(12): e29142. PMID 35357356
35. Cozzarelli J, Sollitto RJ, Thapar J, et al. A 12-year long-term retrospective analysis of the use of radiofrequency nerve ablation for the treatment of neurogenic heel pain. Foot Ankle Spec. Dec 2010; 3(6): 338-46. PMID 20817845
36. Grandhi RK, Kaye AD, Abd-Elseyed A. Systematic Review of Radiofrequency Ablation and Pulsed Radiofrequency for Management of Cervicogenic Headaches. Curr Pain Headache Rep. Feb 23 2018; 22(3): 18. PMID 29476360
37. Ducic I, Felder JM, Fantus SA. A systematic review of peripheral nerve interventional treatments for chronic headaches. Ann Plast Surg. Apr 2014; 72(4): 439-45. PMID 24374395
38. Kvarstein G, Högström H, Allen SM, et al. Cryoneurolysis for cervicogenic headache - a double blinded randomized controlled study. Scand J Pain. Dec 18 2019; 20(1): 39-50. PMID 31675351
39. 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. Feb 2020; 72(2): 220-233. PMID 31908163
40. Schneider HP, Baca JM, Carpenter BB, et al. American College of Foot and Ankle Surgeons Clinical Consensus Statement: Diagnosis and Treatment of Adult Acquired Infracalcaneal Heel Pain. J Foot Ankle Surg. 2018; 57(2): 370-381. PMID 29284574
41. 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). J Pain Res. 2021; 14: 2807-2831. PMID 34526815

Policy History

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

05/05/2016	Medical Policy Committee review
05/18/2016	Medical Policy Implementation Committee approval. New policy.
11/01/2016	Coding update
01/01/2017	Coding update: Removing ICD-9 Diagnosis Codes
05/04/2017	Medical Policy Committee review
05/17/2017	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
05/03/2018	Medical Policy Committee review

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

05/16/2018	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
11/08/2018	Medical Policy Committee review
11/21/2018	Medical Policy Implementation Committee approval. Title changed from “Radiofrequency Ablation of Peripheral Nerves to Treat Pain” to “Ablation of Peripheral Nerves to Treat Pain”. Added four investigational statements as follows: cryoneurolysis of peripheral nerves to treat pain associated with knee osteoarthritis (OA) or total knee arthroplasty is considered to be investigational; radiofrequency ablation (RFA) of peripheral nerves to treat pain associated with occipital neuralgia or cervicogenic headache is considered to be investigational; diagnostic block performed before radiofrequency ablation (RFA) is considered to be investigational; and ablation of peripheral nerves to treat pain in all other conditions, with the exception of facet joint pain is considered to be investigational.
11/07/2019	Medical Policy Committee review
11/13/2019	Medical Policy Implementation Committee approval. Replaced “radiofrequency ablation” with “planned ablation”, so that diagnostic block before any ablation is investigational.
04/02/2020	Medical Policy Committee review
04/08/2020	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/01/2021	Medical Policy Committee review
04/14/2021	Medical Policy Implementation Committee approval. Cryoneurolysis was added to the investigational statement on occipital neuralgia or cervicogenic headache.
05/24/2021	Coding update
10/01/2021	Coding update
11/29/2021	Coding update
12/20/2021	Coding update
04/07/2022	Medical Policy Committee review
04/13/2022	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/06/2023	Medical Policy Committee review
04/12/2023	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
08/02/2023	Coding update
04/04/2024	Medical Policy Committee review
04/10/2024	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
12/12/2024	Coding update
04/03/2025	Medical Policy Committee review
04/09/2025	Medical Policy Implementation Committee approval. Added a <i>Note</i> referencing medical policy 00077 at the beginning of the policy. Added non-cancer to specify pain in all other conditions in the last investigational statement.
10/01/2025	Coding update
04/02/2026	Medical Policy Committee review

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

04/10/2026 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

Next Scheduled Review Date: 04/2027

Coding

The five character codes included in the Louisiana Blue Medical Policy Coverage Guidelines are obtained from Current Procedural Terminology (CPT®)†, copyright 2025 by the American Medical Association (AMA). CPT is developed by the AMA as a listing of descriptive terms and five character identifying codes and modifiers for reporting medical services and procedures performed by physician.

The responsibility for the content of Louisiana Blue Medical Policy Coverage Guidelines is with Louisiana Blue and no endorsement by the AMA is intended or should be implied. The AMA disclaims responsibility for any consequences or liability attributable or related to any use, nonuse or interpretation of information contained in Louisiana Blue Medical Policy Coverage Guidelines. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein. Any use of CPT outside of Louisiana Blue Medical Policy Coverage Guidelines should refer to the most current Current Procedural Terminology which contains the complete and most current listing of CPT codes and descriptive terms. Applicable FARS/DFARS apply.

CPT is a registered trademark of the American Medical Association.

Codes used to identify services associated with this policy may include (but may not be limited to) the following:

Code Type	Code
CPT	0440T, 0441T, 0442T, 64405, 64450, 64454, 64624, 64632, 64640
HCPCS	C9809
ICD-10 Diagnosis	C00-D49.9, M17.0-M17.9, M67.A01, M67.A02, M67.A09, M72.20, M72.21, M72.22

*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

- A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or

Ablation of Peripheral Nerves to Treat Pain

Policy # 00503

Original Effective Date: 05/18/2016

Current Effective Date: 05/01/2026

- B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
1. Consultation with technology evaluation center(s);
 2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
 3. Reference to federal regulations.

‡ Indicated trademarks are the registered trademarks of their respective owners.

NOTICE: If the Patient's health insurance contract contains language that differs from the BCBSLA Medical Policy definition noted above, the definition in the health insurance contract will be relied upon for specific coverage determinations.

NOTICE: Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.

NOTICE: Federal and State law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage.

NOTICE: If an authorization for an ongoing course of treatment has been provided to a member and the member changes from one health plan to another health plan (e.g., a member moves from carrier A to Louisiana Blue), Louisiana Blue may honor the previous health plan's authorization for the same service under the same type of in-network benefit for a 90-day transition period. Documentation of the authorization for the ongoing course of treatment from the previous health plan must be provided to us by the member or their provider and the services provided for the course of treatment must otherwise be a covered service under the Louisiana Blue health plan. This provision does not apply to medications covered under the plan's pharmacy benefit.