



MEDICAL COVERAGE GUIDELINES  
SECTION: MEDICINE

ORIGINAL EFFECTIVE DATE: 07/28/16  
LAST REVIEW DATE: 10/16/18  
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## NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN

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Non-Discrimination Statement and Multi-Language Interpreter Services information are located at the end of this document.

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Medical Coverage Guideline must be read in its entirety to determine coverage eligibility, if any.

This Medical Coverage Guideline provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide BCBSAZ complete medical rationale when requesting any exceptions to these guidelines.

The section identified as "Description" defines or describes a service, procedure, medical device or drug and is in no way intended as a statement of medical necessity and/or coverage.

The section identified as "Criteria" defines criteria to determine whether a service, procedure, medical device or drug is considered medically necessary or experimental or investigational.

State or federal mandates, e.g., FEP program, may dictate that any drug, device or biological product approved by the U.S. Food and Drug Administration (FDA) may not be considered experimental or investigational and thus the drug, device or biological product may be assessed only on the basis of medical necessity.

Medical Coverage Guidelines are subject to change as new information becomes available.

For purposes of this Medical Coverage Guideline, the terms "experimental" and "investigational" are considered to be interchangeable.

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## **NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)**

### **Description:**

Neuroablation is a procedure designed to destroy neural tissue for the treatment of chronic pain. A lesion is created on the nerve to interrupt the nerve impulse/pathway thus preventing the pain signal from traveling to the brain. Neuroablation may also be referred to as neurotomy, rhizotomy or denervation.

Direct visual rhizotomy (DVR) is an endoscopic, ultra-minimally invasive procedure that has been investigated for the treatment of low back pain. In DVR, the nerve root branches that transmit pain are cut under direct vision to permanently eliminate pain. In neuroablation, the nerve pathway is interrupted but not permanently severed.

Neuroablation methods addressed in this guideline include:

Chemodenervation (chemical)	Administration of alcohol, phenol or high-concentration local anesthetics around the nerve
Cryodenervation (cryoneurolysis, cryoablation)	Involves the use of extreme cold to destroy abnormal tissue
Laser denervation	Involves the removal of material from a solid (or occasionally liquid) surface by irradiating it with a laser beam
Non-pulsed radiofrequency denervation (radiofrequency rhizotomy)	Application of heat to the nerve
Pulsed radiofrequency denervation (radiofrequency rhizotomy)	Application of short bursts of electrical current of high voltage in the radiofrequency range but without heating the tissue enough to cause coagulation



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## NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)

### Criteria:

For cryosurgery, cryoablation, cryotherapy and cryoneurolysis for foot disorders, see BCBSAZ Medical Coverage Guideline #O589, "*Foot Disorder Treatments*".

For cryoneurolysis of peripheral nerves, see BCBSAZ Medical Coverage Guideline #O983, "*Ablation of Peripheral Nerves to Treat Pain*".

### Chemodenervation, Cryodenervation and Non-Pulsed Radiofrequency Neuroablation:

- Initial neuroablation by chemodenervation, cryodenervation, or non-pulsed radiofrequency is considered **medically necessary** for **ANY** of the following indications:
  1. Chronic pain of the spine with documentation of **ALL** of the following:
    - Severe segmental pain of the spine (zygapophyseal/facet joint pain origin); radicular pain may or may not be present
    - Pain has limited activities of daily living for three (3) months or greater
    - Pain has **not** responded to 3 months of comprehensive pain management and other conservative treatments, such as medication and/or physical therapy, or trigger point injection
    - The source of pain is not attributed solely to: disc herniation, spinal stenosis, spinal instability at the level of intended ablation, nerve root compression due to disc herniation, bone spur or tumor at the level of intended ablation
    - Pain was successfully relieved (reduced by at least 75 - 100%) as documented in record which may include percent change in analog pain scale with one or two trial diagnostic nerve block/facet joint injections at the proposed targeted site
  2. Severe cancer pain that has not responded to pharmacological pain management
  3. Trigeminal neuralgia (tic douloureux) that has not responded to pharmacological pain management
- Repeat neuroablation by chemodenervation, cryodenervation or non-pulsed radiofrequency for chronic pain of the spine, severe cancer pain and trigeminal neuralgia is considered **medically necessary** when a minimum of six months has elapsed since the previous successful treatment.



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## NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)

Criteria: (cont.)

**Chemodenervation, Cryodenervation and Non-Pulsed Radiofrequency Neuroablation:** (cont.)

- Neuroablation by chemodenervation, cryodenervation, or non-pulsed radiofrequency for all other indications not previously listed or if above criteria not met is considered ***experimental or investigational*** based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome, and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives, and
  4. Insufficient evidence to support improvement outside the investigational setting.

These indications include, *but are not limited to:*

- Radiofrequency denervation of the sacroiliac joint
- Radiofrequency ablation of the sacral nerves S1-S4

**Other Neuroablation Methods:**

- Neuroablation by all other methods not previously listed for treatment of chronic pain is considered ***experimental or investigational*** based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome, and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

These methods include, *but are not limited to:*

- Laser denervation
- Pulsed radiofrequency denervation



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## NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)

**Criteria:** (cont.)

**Direct Visual Rhizotomy (DVR):**

- Direct visual rhizotomy (DVR) for treatment of pain is considered ***experimental or investigational*** based upon:
  1. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes, and
  2. Insufficient evidence to support improvement of the net health outcome, and
  3. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives.

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**Resources:**

Literature reviewed 12/19/17. We do not include marketing materials, poster boards and non-published literature in our review.

The BCBS Association Medical Policy Reference Manual (MPRM) policy is included in our guideline review. References cited in the MPRM policy are not duplicated on this guideline.

1. 6.01.23 BCBS Association Medical Policy Reference Manual. Diagnosis and Treatment of Sacroiliac Joint Pain. Re-issue date 10/13/2016, issue date 02/18/2000.
2. 7.01.116 BCBS Association Medical Policy Reference Manual. Facet Joint Denervation. Re-issue date 11/09/2017, issue date 03/12/2009.
3. Bellini M, Barbieri M. Percutaneous cryoanalgesia in pain management: a case-series. *Anaesthesiology intensive therapy*. 2015;47(4):333-335.
4. Berk C, Constantoyannis C, Honey CR. The treatment of trigeminal neuralgia in patients with multiple sclerosis using percutaneous radiofrequency rhizotomy. *Can J Neurol Sci*. 2003 Aug 2003;30(3):220-223.
5. California Technology Assessment Forum. Radiofrequency Neurotomy for the Treatment of Chronic Pain from the Upper Cervical (C2-3) Spine. *Blue Shield of California Foundation*. 06/20/2007.
6. External Consultant Review. *Physiatry*. 12/2008.
7. External Consultant Review. *Anesthesiology*. 09/18/2006.

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## **NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)**

### **Resources:** (cont.)

8. External Consultant Review. *Anesthesiology*. 05/06/2007.
9. Gocer AI, Cetinalp E, Tuna M, Ildan F, Bagdatoglu H, Hacıyakupoglu S. Percutaneous radiofrequency rhizotomy of lumbar spinal facets: the results of 46 cases. *Neurosurg Rev*. 1997;20(2):114-116.
10. Gusmao S, Magaldi M, Arantes A. [Trigeminal radiofrequency rhizotomy for the treatment of trigeminal neuralgia: results and technical modification]. *Arq Neuropsiquiatr*. 2003 Jun 2003;61(2B):434-440.
11. Gusmao S, Oliveira M, Tazinaffo U, Honey CR. Percutaneous trigeminal nerve radiofrequency rhizotomy guided by computerized tomography fluoroscopy. Technical note. *J Neurosurg*. 2003 Oct 2003;99(4):785-786.
12. Ilfeld BM, Preciado J, Trescot AM. Novel cryoneurolysis device for the treatment of sensory and motor peripheral nerves. *Expert review of medical devices*. Aug 2016;13(8):713-725.
13. InterQual® Care Planning Procedures. Neuroablation, Percutaneous.
14. Lord SM, Barnsley L, Wallis BJ, McDonald GJ, Bogduk N. Percutaneous radio-frequency neurotomy for chronic cervical zygapophyseal-joint pain. *N Engl J Med*. 1996 Dec 5 1996;335(23):1721-1726.
15. Lord SM, Bogduk N. Radiofrequency procedures in chronic pain. *Best Pract Res Clin Anaesthesiol*. 2002 Dec 2002;16(4):597-617.
16. Manchikanti L, Pampati S, Cash KA. Making sense of the accuracy of diagnostic lumbar facet joint nerve blocks: an assessment of the implications of 50% relief, 80% relief, single block, or controlled diagnostic blocks. *Pain Physician*. Mar-Apr 2010;13(2):133-143.
17. Mikeladze G, Espinal R, Finnegan R, Routon J, Martin D. Pulsed radiofrequency application in treatment of chronic zygapophyseal joint pain. *Spine J*. 2003 Sep-Oct 2003;3(5):360-362.
18. Niemisto L, Kalso E, Malmivaara A, Seitsalo S, Hurri H. Radiofrequency denervation for neck and back pain (Cochrane Review). 31 October 2002 2002.



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### Resources: (cont.)

19. Slipman CW, Bhat AL, Gilchrist RV, Issac Z, Chou L, Lenrow DA. A critical review of the evidence for the use of zygapophysial injections and radiofrequency denervation in the treatment of low back pain. *Spine J.* 2003 Jul-Aug 2003;3(4):310-316.
20. Stolker RJ, Vervest AC, Groen GJ. The treatment of chronic thoracic segmental pain by radiofrequency percutaneous partial rhizotomy. *J Neurosurg.* 1994 Jun 1994;80(6):986-992.
21. UpToDate.com. Overview of the Treatment of Chronic Non-Cancer Pain. 08/15/2016.
22. Yin W, Willard F, Carreiro J, Dreyfuss P. Sensory stimulation-guided sacroiliac joint radiofrequency neurotomy: technique based on neuroanatomy of the dorsal sacral plexus. *Spine.* 2003 Oct 15 2003;28(20):2419-2425.



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## NEUROABLATION AND OTHER PROCEDURES FOR TREATMENT OF CHRONIC PAIN (cont.)

### Non-Discrimination Statement:

Blue Cross Blue Shield of Arizona (BCBSAZ) complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex. BCBSAZ provides appropriate free aids and services, such as qualified interpreters and written information in other formats, to people with disabilities to communicate effectively with us. BCBSAZ also provides free language services to people whose primary language is not English, such as qualified interpreters and information written in other languages. If you need these services, call (602) 864-4884 for Spanish and (877) 475-4799 for all other languages and other aids and services.

If you believe that BCBSAZ has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability or sex, you can file a grievance with: BCBSAZ's Civil Rights Coordinator, Attn: Civil Rights Coordinator, Blue Cross Blue Shield of Arizona, P.O. Box 13466, Phoenix, AZ 85002-3466, (602) 864-2288, TTY/TDD (602) 864-4823, [crc@azblue.com](mailto:crc@azblue.com). You can file a grievance in person or by mail or email. If you need help filing a grievance BCBSAZ's Civil Rights Coordinator is available to help you. You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at: U.S. Department of Health and Human Services, 200 Independence Avenue SW., Room 509F, HHH Building, Washington, DC 20201, 1-800-368-1019, 800-537-7697 (TDD). Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>

### Multi-Language Interpreter Services:

Spanish: Si usted, o alguien a quien usted está ayudando, tiene preguntas acerca de Blue Cross Blue Shield of Arizona, tiene derecho a obtener ayuda e información en su idioma sin costo alguno. Para hablar con un intérprete, llame al 602-864-4884.

Navajo: Díí kwe'é atah nilinígíí Blue Cross Blue Shield of Arizona haada yit'éego bina'idilkidgo éí doodago Háida bíjá anilyeedígíí t'áadoo le'é yina'idilkidgo beehaz'áanii hólo díí t'áa hazaadk'ehjí háká a'doowołgo bee haz'ą doo baqah ilinígóó. Ata' halne'ígíí kojį' bich'į' hodilnih 877-475-4799.

Chinese: 如果您，或是您正在協助的對象，有關於插入項目的名稱 Blue Cross Blue Shield of Arizona 方面的問題，您有權利免費以您的母語得到幫助和訊息。洽詢一位翻譯員，請撥電話 在此插入數字 877-475-4799。

Vietnamese: Nếu quý vị, hay người mà quý vị đang giúp đỡ, có câu hỏi về Blue Cross Blue Shield of Arizona quý vị sẽ có quyền được giúp và có thêm thông tin bằng ngôn ngữ của mình miễn phí. Để nói chuyện với một thông dịch viên, xin gọi 877-475-4799.

Arabic:

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