



# MEDICAL POLICY STATEMENT

## Arkansas PASSE

Policy Name & Number	Date Effective
Implantable Spinal Cord Stimulator-AR PASSE-MM-1506	06/01/2024
Policy Type	
<b>MEDICAL</b>	

Medical Policy Statement prepared by CareSource and its affiliates are derived from literature based on and supported by clinical guidelines, nationally recognized utilization and technology assessment guidelines, other medical management industry standards, and published MCO clinical policy guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any Evidence of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other policies and procedures.

Medical Policy Statements prepared by CareSource and its affiliates do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination. According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

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A. Subject

**Implantable Spinal Cord Stimulator**

B. Background

Spinal cord (dorsal column) stimulation (SCS) is a pain relief technique that delivers a low-voltage electrical current to the spinal cord to block the sensation of pain. This technique is best suited for neuropathic pain. Common indications include, but are not limited to, failed back surgery syndrome, complex regional pain syndrome (ie, reflex sympathetic dystrophy), arachnoiditis, radiculopathies, phantom limb/stump pain, and peripheral neuropathy. SCS is generally not effective in treating nociceptive pain (resulting from irritation of the nerves) or central deafferentation pain (related to central nervous system damage from a stroke or spinal cord injury). SCS implantation is a two-stage process, with a trial phase performed before permanent implantation.

The first stage consists of a short trial (eg, 3-14 days) with a temporary percutaneous implantation of neurostimulator electrode(s) and external generator for assessing the patient's suitability for ongoing treatment with a permanent surgically implanted nerve stimulator. During the trial phase, one or two leads are placed via an epidural needle in the appropriate position. This can be done under light sedation in an office setting if all the sterility, equipment, professional training, and support personnel required for the proper surgery and follow up of the patient are available. If at least 50% pain relief is achieved during the trial phase, the temporary system may be transitioned to a permanent system. Performance and documentation of an effective trial is a prerequisite for permanent nerve stimulation.

In the permanent implantation stage, there are two different SCS systems routinely used. The first system uses percutaneous insertion of electrodes into the epidural space and subcutaneous connection to a neurostimulator. The second system involves the implantation of paddle-type leads into the epidural space after laminectomy and subcutaneous connection to a neurostimulator. Neurostimulators may be either implantable pulse generators, which use either a non-rechargeable or a rechargeable internal battery, or radio frequency devices, which receive energy in the form of radio frequency pulses from an external device powered by a rechargeable battery. The appropriate SCS system with up to 16 contacts/electrodes will depend on the underlying condition, the patient's pain patterns, the area of body affected, and the amount and intensity of stimulation required. Surgery for implantation of a permanent neurostimulator must be performed in an ambulatory surgical center or hospital.

Lumbar or thoracic dorsal column SCS has been proposed for the treatment of numerous other conditions (eg, diabetic neuropathies, phantom limb pain, movement disorders, ataxia, and brain lesions), however, there is insufficient evidence in the peer-reviewed published literature to support SCS for these conditions. There is also insufficient evidence to support the safety and efficacy of cervical placement of a spinal cord stimulator for any indication.

The MEDICAL Policy Statement detailed above has received due consideration as defined in the MEDICAL Policy Statement Policy and is approved.

### C. Definitions

- **Conservative Therapy** – A multimodality plan of care including both active and inactive conservative therapy.
  - **Active Conservative Therapies** – Actions or activities that strengthen muscle groups and target key spinal structures, including physical therapy, occupational therapy, and/or a physician supervised home exercise program (HEP).
    - **HEP** – A 6-week program requiring an exercise prescription and/or plan and a follow-up documented in the medical record after completion, or documentation of the inability to complete the HEP due to a stated physical reason (ie, increased pain, inability to physically perform exercises). Patient inconvenience or noncompliance without explanation does not constitute an inability to complete.
  - **Inactive Conservative Therapies** – Passive activities by the patient that aid in treating symptoms associated with pain, including rest, ice, heat, medical devices, TENS use, and/or pharmacotherapy.
    - **Transcutaneous Electrical Nerve Stimulator (TENS)** – A device that utilizes electrical current delivered through electrodes placed on the surface of the skin to decrease the patient’s perception of pain by inhibiting the transmission of afferent pain nerve impulses and/or stimulating the release of endorphins. Use, frequency, duration, and start dates must be documented in the medical record to be considered part of conservative therapy during the period of prior authorization request.
- **Implantable Spinal Cord Stimulator/Dorsal Column Stimulator (SCS)** – A pain relief device that delivers a low voltage electrical current to the spinal cord to block the sensation of pain.
  - **High Frequency Spinal Cord Stimulation** – Provides a higher frequency than traditional SCS, operating at a frequency of 10,000 Hz as opposed to traditional SCS operating in a 40 – 60 Hz range.
- **Visual Analog Scale (VAS)** – A tool used to measure pain using a numerical straight line scale between 0 – 10 describing pain from mild to severe.

### D. Policy

- I. Implantable Spinal Cord Stimulator
  - A. CareSource considers a preliminary trial (3-14 days) for implantable spinal cord stimulators for the treatment of chronic pain medically necessary when **ALL** the following criteria are met:
    1. The member has one of the following diagnoses:
      - a. failed back surgery syndrome
      - b. complex regional pain syndrome or reflex sympathetic dystrophy
      - c. neuropathic pain that is moderate to severe (5 or more on a 10-point Visual Analog Scale)
      - d. inoperable limb ischemia secondary to peripheral vascular disease
    2. Pain pathology is documented.
    3. Surgical intervention is not indicated.

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4. The member has undergone careful screening, evaluation, and diagnosis by a multidisciplinary team prior to implantation.
  5. The member has undergone a psychological evaluation by a licensed mental health provider (eg, a face-to-face assessment with or without psychological questionnaires and/or psychological testing) that reveals no evidence of an inadequately controlled behavioral health problem that would negatively impact the success of a SCS or contraindicate its placement, including:
    - a. substance use disorders
    - b. depression
    - c. psychosis
  6. Failure of conservative therapy, as evidenced by **ALL** the following:
    - a. documentation in the medical record of at least 6 months of active conservative therapy (see definition above) within the past 12 months OR inability to complete active conservative therapy due to contraindication, increased pain, or intolerance
    - b. documentation in the medical record of at least 6 months of inactive conservative therapy (see definition above) within the past 12 months
- B. CareSource considers a permanently placed SCS for the treatment of chronic pain medically necessary when the member has met **ALL** the criteria above (A.1-6), and at least a 50% reduction in pain was achieved during the trial period and is documented in the medical record.
- C. CareSource considers a preliminary trial (3-14 days) for implantable spinal cord stimulators for the treatment of chronic stable angina pectoris medically necessary when **ALL** the following criteria are met:
1. Member's angina pectoris is a Class III or Class IV on the New York Heart Association and Canadian Cardiovascular Society Functional Classifications (refer to table, below).
  2. Member has failed to obtain satisfactory improvement of symptoms with optimal pharmacological treatment, including use of antianginal medications such as long acting nitrates, beta-adrenergic blockers and calcium-channel antagonists.
  3. Member is not a candidate for revascularization procedure (coronary arter bypass graft or percutaneous transluminal coronary angioplasty).
  4. Member has undergone a psychological evaluation by a licensed mental health provider (eg, a face-to-face assessment with or without psychological questionnaires and/or psychological testing) that reveals no evidence of an inadequately controlled behavioral health problem that would negatively impact the success of a SCS or contraindicate its placement, including:
    - a. substance use disorders
    - b. depression
    - c. psychosis
- D. CareSource considers a permanently placed SCS for the treatment of chronic stable angina medically necessary when the member has met **ALL** the criteria above (C.1-4), and at least a 50% reduction in pain was achieved during the trial period and documented in the medical record.

**New York Heart Association and Canadian Cardiovascular Society Functional Classifications**

Functional Capacity	Objective Assessment
<b>Class I.</b> Patients with cardiac disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea, or anginal pain.	<b>A.</b> No objective evidence of cardiovascular disease.
<b>Class II.</b> Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea, or anginal pain.	<b>B.</b> Objective evidence of minimal cardiovascular disease.
<b>Class III.</b> Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, dyspnea, or anginal pain.	<b>C.</b> Objective evidence of moderately severe cardiovascular disease.
<b>Class IV.</b> Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of heart failure or the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.	<b>D.</b> Objective evidence of severe cardiovascular disease.

II. Contraindications

Implantable SCS are contraindicated in members with **ANY** of the following:

- A. active infection or sepsis
- B. coagulopathy
- C. major psychiatric disorders, including somatization
- D. active and untreated substance abuse disorder
- E. presence of other implanted programmable devices that may result in miscommunication between the devices impacting pump function (eg, cardiac pacemaker, defibrillator)

III. Exclusions

CareSource considers SCS for any of the following experimental and investigational:

- A. intra-operative motor evoked potential and somatosensory evoked potential use
- B. cervical placement of a SCS for any indication
- C. all other indications not mentioned above because its effectiveness for other indications has not been established, including (but not limited to):
  - 1. members in a chronic vegetative or minimally conscious state
  - 2. chronic cancer-related pain
  - 3. chronic pelvic pain (eg, chronic abdominal pain, chronic visceral pain)
  - 4. gait disorders including spinocerebellar ataxia
  - 5. irritable bowel syndrome
  - 6. Parkinson's disease
  - 7. sleep disorders

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8. sphincter of Oddi dysfunction
9. types of chronic non-malignant non-neuropathic pain not mentioned above
10. ventricular fibrillation and ventricular tachycardia

IV. High-Frequency Spinal Cord Stimulators

- A. CareSource considers high-frequency spinal cord stimulators an equal and effective alternative to standard spinal cord stimulators for the medically necessary indications listed above.
- B. Replacement of a functioning standard spinal cord stimulator with a high-frequency spinal cord stimulator is not considered medically necessary.

V. Removal and Replacement

- A. CareSource covers the replacement of a lumbar or thoracic spinal cord stimulator and/or battery/generator replacement medically necessary when the existing stimulator and/or battery/generator are no longer under warranty and cannot be repaired. Lead and electrode replacement are not generally required at the time of generator replacement due to end of battery life.
- B. Device interrogation reports with interpretation reports in the medical records must be acquired within a minimum 3 months of a prior authorization request and must be submitted with each prior authorization request for replacement.
- C. CareSource considers removal of an SCS medically necessary even where installation would not have been indicated.

E. Conditions of Coverage

NA

F. Related Policies/Rules

NA

G. Review/Revision History

	DATE	ACTION
<b>Date Issued</b>	05/10/2023	New policy, approved at Committee.
<b>Date Revised</b>	02/28/2024	Annual review: editorial changes and updated references. Approved at Committee.
<b>Date Effective</b>	06/01/2024	
<b>Date Archived</b>		

H. References

1. Abdi S. Complex regional pain syndrome in adults: treatment, prognosis, and prevention. UpToDate. Updated January 19, 2023. Accessed February 7, 2024. [www.uptodate.com](http://www.uptodate.com)
2. Bastiaens F, van de Wijert IH, Bronkhorst EM, et al. Factors predicting clinically relevant pain relief after spinal cord stimulation for patients with chronic low back and/or leg pain: a systematic review with meta-analysis and meta-regression. *Neuromodulation*. 2024; 27(1):70-82. doi:10.1016/j.neurom.2023.10.188

The MEDICAL Policy Statement detailed above has received due consideration as defined in the MEDICAL Policy Statement Policy and is approved.

3. Caylor J, Reddy R, Yin S, et al. Spinal cord stimulation in chronic pain: evidence and theory for mechanisms of action. *Bioelec Med*. 2019;5:12. doi:10.1186/s42234-019-0023-1
4. Chou R. Subacute and chronic low back pain: surgical treatment. UpToDate. Updated September 27, 2023. Accessed February 7, 2024. [www.uptodate.com](http://www.uptodate.com)
5. Colucci WS, Borlaug BA. Heart failure: clinical manifestations and diagnosis in adults. UpToDate. Updated April 20, 2022. Accessed February 7, 2024. [www.uptodate.com](http://www.uptodate.com)
6. Dombovy-Johnson ML, Hunt CL, Morrow MM, et al. Current evidence lacking to guide clinical practice for spinal cord stimulation in the treatment of neuropathic pain in spinal cord injury: a review of the literature and a proposal for future study. *Pain Pract*. 2020;20(3):325-335. doi:10.1111/papr.12855
7. Grider J, Manchikanti L, Carayannopoulos A, et al. Effectiveness of spinal cord stimulation in chronic spinal pain: a systematic review. *Pain Physician*. 2016;19:E33-E54. Accessed February 7, 2024. [www.painphysicianjournal.com](http://www.painphysicianjournal.com)
8. Health Technology Assessment: Spinal Cord Stimulation for Relief of Neuropathic Pain. Hayes; 2018. Updated March 27, 2023. Accessed February 7, 2024. [www.evidence.hayesinc.com](http://www.evidence.hayesinc.com)
9. Henson JV, Varhabhatla NC, Bebic Z, et al. Spinal cord stimulation for painful diabetic peripheral neuropathy: a systematic review. *Pain Ther*. 2021;10(2):895-908. doi:10.1007/s40122-021-00282-9
10. McKenzie-Brown AM, Pritzlaff SG. Spinal cord stimulation: placement and management. UpToDate. Updated September 14, 2023. Accessed February 7, 2024. [www.uptodate.com](http://www.uptodate.com)
11. Peng L, Min S, Zejun Z, et al. Spinal cord stimulation for cancer-related pain in adults. *Cochrane Database Syst Rev*. 2015;2015(6):CD009389. doi:10.1002/14651858.CD009389.pub3
12. Petersen EA. Spinal cord stimulation in painful diabetic neuropathy: an overview. *Diabetes Res Clin Pract*. 2023;206 Suppl 1:110760. doi:10.1016/j.diabres.2023.110760
13. Sdrulla AD, Guan Y, Raja SN. Spinal cord stimulation: clinical efficacy and potential mechanisms. *Pain Prac*. 2018;18(8):1048-1067. doi:10.1111/papr.12692
14. Sun L, Peng C, Joosten E, et al. Spinal cord stimulation and treatment of peripheral or central neuropathic pain: mechanisms and clinical application. *Neural Plasticity*. 2021;2021:5607898. doi:10.1155/2021/5607898
15. Waszak, PM, Modric M, Paturej A, et al. Spinal cord stimulation in failed back surgery syndrome: review of clinical use, quality of life and cost effectiveness. *Asian Spine J*. 2016;10(6):1195-1204. doi:10.4184/asj.2016.10.6.1195