



Bone Growth (Electronic and Ultrasonic) Stimulators

LOB(s): <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Medicare <input checked="" type="checkbox"/> Medicaid	State(s): <input checked="" type="checkbox"/> Idaho <input checked="" type="checkbox"/> Montana <input checked="" type="checkbox"/> Oregon <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Oregon
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Enterprise Policy

PacificSource is committed to assessing and applying current regulatory standards, widely-used treatment guidelines, and evidenced-based clinical literature when developing clinical criteria for coverage determination. Each policy contains a list of sources (references) that serves as the summary of evidence used in the development and adoption of the criteria. The evidence was considered to ensure the criteria provide clinical benefits that promote patient safety and/or access to appropriate care. Each clinical policy is reviewed, updated as needed, and readopted, at least annually, to reflect changes in regulation, new evidence, and advancements in healthcare.

Clinical Guidelines are written when necessary to provide guidance to providers and members in order to outline and clarify coverage criteria in accordance with the terms of the Member's policy. This Clinical Guideline only applies to PacificSource Health Plans, PacificSource Community Health Plans, and PacificSource Community Solutions in Idaho, Montana, Oregon, and Washington. Because of the changing nature of medicine, this list is subject to revision and update without notice. This document is designed for informational purposes only and is not an authorization or contract. Coverage determinations are made on a case-by-case basis and subject to the terms, conditions, limitations, and exclusions of the Member's policy. Member policies differ in benefits and to the extent a conflict exists between the Clinical Guideline and the Member's policy, the Member's policy language shall control. Clinical Guidelines do not constitute medical advice nor guarantee coverage.

Background

Electronic or ultrasound bone growth stimulators are used to promote the body's natural bone-healing processes in the treatment of fractures and bone grafting procedures. There are four types of bone growth stimulators, three of which are electronic, and one is ultrasonic:

- **Non-invasive electronic bone growth stimulators** - Externally placed and use pulsed electromagnetic fields, direct current capacitive coupling, or combined electromagnetic field technology.
- **Semi-invasive electronic bone growth stimulators** - Use direct current electrical stimulation via percutaneous cathode and anode leads placed through the skin to deliver stimulation to the treatment site.
- **Invasive electronic bone growth stimulators** - Used as an adjunct to non-cervical spinal (lumbar) fusion, procedures, and for non-union fractures. The implanted device uses direct current, and the power source is removed in a second surgical procedure when the stimulation is completed.
- **Ultrasonic bone growth stimulators, using low intensity pulsed ultrasound** - Used to accelerate healing of fractures or osteotomy.

Requested Bone Growth Stimulator Devices must be FDA approved for the area of intended use.

Criteria

Commercial

I. Electronic Bone Growth Stimulators

- A. PacificSource considers **non-invasive** electrical bone stimulation for spinal surgery to be medically necessary when the criteria outlined in Carelon Musculoskeletal Spine Surgery Guideline is met.
- B. PacificSource considers **invasive** electrical bone stimulators for spinal surgery to be medically necessary when **ALL** of the following criteria is met:
 - 1. Adjunct lumbar (non-cervical) spinal fusion to prevent fusion failure
 - 2. **ONE** of the following risk factors for failed fusion are present:
 - a. Previously failed lumbar spinal fusion(s)
 - b. Grade III or higher spondylolisthesis
 - c. Fusion to be performed at more than one level
 - d. Current smoker
 - e. Diabetes
 - f. Renal disease
 - g. History or high risk for malnutrition.
- C. PacificSource considers invasive, non-invasive, or semi-invasive electrical bone stimulators medically necessary as treatment of fracture non-unions or congenital pseudoarthrosis when **ALL** of the following criteria is met:
 - 1. Diagnosis of fracture non-union or congenital pseudoarthrosis
 - 2. At least 3 months have passed since the date of fracture
 - 3. Radiologic imaging at least 90 days from date of fracture confirming healing has not progressed
 - 4. The fracture gap is one centimeter or less
 - 5. The patient can be adequately immobilized and is likely to comply with non-weight bearing

II. Ultrasonic Bone Growth Stimulators

- A. PacificSource considers ultrasonic bone growth stimulators to be medically necessary when **ALL** of the criteria outlined in MCG ACG: A-0414, Bone Growth Stimulator, Ultrasonic is met.

Medicaid

PacificSource Community Solutions (PCS) follows the general coverage, limitations, and exclusions outlined in OARs 410-141-3820, 410-141-3825, and 410-120-1200 and Excluded Services Guideline Note E2 of the Health Evidence Review Commission (HERC) Prioritized List of Health Services; or OAR 410-122-0510 for coverage of bone growth stimulators.

PacificSource Community Solutions may cover noninvasive electrical osteogenesis stimulators (E0747) and noninvasive ultrasonic osteogenesis stimulators when the criteria in OAR 410-122-0510 is met.

PacificSource Community Solutions follows NCD 150.2 for coverage of surgically implanted electrical osteogenesis stimulators (E0749).

PacificSource Community Solutions considers noninvasive (non-operative) low intensity ultrasound stimulation to aid bone healing (20979) to have insufficient evidence of effectiveness per Excluded Services Guideline Note E2 of the Health Evidence Review Commission (HERC) Prioritized List of Health Services.

PacificSource Community Solutions (PCS) follows the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) coverage requirements in OAR 410-151-0000 through 410-151-0003 for EPSDT beneficiaries. Relevant coverage guidance, including but not limited to OAR 410-122-0510 and Excluded Services Guideline Note E2 may be used to assist in informing a determination of medical necessity and medical appropriateness during the individual case review. A case-by-case review for EPSDT Medical Necessity and EPSDT Medical Appropriateness as defined in OAR 410-151-0001 is required prior to denying. Refer to the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) policy for details.

Medicare

PacificSource Medicare follows NCD 150.2 for coverage of Osteogenesis Stimulators.

Exclusion: An ultrasonic osteogenesis stimulator will be denied as not medically necessary if it is used with other noninvasive osteogenesis stimulators.

Coding Information

The following list of codes are for informational purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

- 20975 Electrical stimulation to aid bone healing; invasive (operative)
- 20979 Low intensity ultrasound stimulation to aid bone healing, noninvasive (non-operative)
- E0747 Osteogenesis stimulator, electrical, noninvasive, other than spinal applications
- E0749 Osteogenesis stimulator, electrical, surgically implanted
- E0760 Osteogenesis stimulator, low intensity ultrasound, non-invasive

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HCPCS® codes, descriptions and materials are copyrighted by Centers for Medicare and Medicaid Services (CMS).

Definitions

Failed spinal fusion - Failure to achieve solid bony fusion at least 6 months after the index spinal fusion surgery, demonstrated by lack of radiographic progression on serial imaging obtained at least 90 days apart, with absence of bridging bone at the intended fusion site.

References

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Appendix

Policy Number:

Effective: 11/1/2020

Next review: 6/1/2027

Policy type: Enterprise

Author(s):

Depts.: Health Services

Applicable regulation(s): 42 CFR § 422.101(b-c); OARs 410-122-0080, 410-122-0510, 410-141-3820, 410-141-3825, 410-151-0001, 410-151-0002

OPs Approval: 4/2026