Bone Growth (Electronic and Ultrasonic) Stimulators

LOB(s):	State(s):
☒ *Commercial* ☒ *Medicare*	☒ *Idaho* ☒ *Montana* ☒ *Oregon* ☒ *Washington* ☐ *Other:*
☒ *Medicaid*	☒ *Oregon* ☐ *Washington*

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 hasten the repair of bone fractures, or to facilitate the healing process induced by bone grafting, by promoting the body's natural bone repair process.

There are four types of bone growth stimulators, three of which are electronic, and one is ultrasonic:

- **Non-invasive electronic bone growth stimulators** are externally placed, and use either pulsed electromagnetic fields, direct current capacitive coupling, or combined electromagnetic field technology.
- **Semi-invasive electronic bone growth stimulators** use direct current electrical stimulation via a percutaneous cathode and anode placed in contact with the skin.
- **Invasive electronic bone growth stimulators** are used as an adjunct to non-cervical spinal fusion or 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**, are 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 to be medically necessary when the criteria outlined in Carelon Musculoskeletal Spine Surgery Guideline is met.

B. PacificSource considers **invasive** electrical bone stimulators to be medically necessary when **ALL** of the following criteria is met:

1. Adjunct to cervical or lumbar to prevent fusion failure

2. ONE of the following risk factors for failed fusion are present:

a. Previously failed lumbar or cervical 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** electrical bone stimulators medically necessary as treatment of fracture non-unions or congenital pseudoarthrosis. The diagnosis of fracture non-union must meet **ALL** of the following criteria:

1. At least 3 months have passed since the date of fracture

2. Radiologic imaging at least 90 days from date of fracture confirming healing has not progressed

3. The fracture gap is one centimeter or less

4. 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 410-122-0080 for adult members, 21 years and older when determining coverage of Osteogenesis stimulators. For members under the age of 21, PacificSource Community Solutions follows the EPSDT coverage requirements in OAR 410-151-0002 as well as the general coverage, limitations, and exclusions in OAR 410-122-0080.

PacificSource Community Solutions may cover noninvasive electrical osteogenesis stimulators (E0747 and E0749) 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 Guideline Note 173 of the OHP Prioritized list of Health Services.

For members under the age of 21, determination of non-coverage may only be made after a case-by-case review for EPSDT Medical Necessity and EPSDT Medical Appropriateness in accordance with OARs 410-151-0002.

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

Definitions

Failed spinal fusion - a spinal fusion, which has not healed at a minimum of 6 months after the original surgery, as evidenced by at least 2 serial x-rays at least 90 days apart.

References

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Appendix

Policy Number:

Effective: 11/1/2020 **Next review:** 6/1/2025

Policy type: Enterprise

Author(s):

Depts.: Health Services

Applicable regulation(s): OARs 410-122-0080, 410-122-0510, 410-141-3820, 410-141-3825, 410-151-0001, 410-151-0002.

Commercial Ops: 2/2025

Government Ops: 2/2025