Bone Growth (Electronic and Ultrasonic) Stimulators

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

Enterprise Policy

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 (EBGS), and one is ultrasonic (UBGS):

- **Non-invasive electronic bone growth stimulators** are externally placed~~,~~ and use either pulsed electromagnetic fields (PEMF), direct current capacitive coupling, or combined electromagnetic field (CMF) 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. Non-invasive Electrical Bone Stimulation

PacificSource may consider non-invasive electrical bone stimulation to be medically necessary as a treatment for patients with failed spinal fusion (see definition below).

B. Invasive or Non-invasive Electronic Bone Growth Stimulators

PacificSource may consider invasive or non-invasive electrical bone stimulators to be medically necessary when **ALL** of the following criteria are met:

1. Adjunct to cervical or lumbar to prevent fusion failure; **AND**

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

a. One or more 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. Invasive, Non-invasive, or Semi-invasive Electronic Bone Growth Stimulators

PacificSource may consider invasive, non-invasive, or semi-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, to confirm no progression of healing

3. The fracture gap is one centimeter or less; **AND**

4. The patient can be adequately immobilized and is likely to comply with non-weight bearing.

II. Ultrasonic Bone Growth Stimulators

PacificSource may consider 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 follows Oregon Health Plan's Oregon Administrative Rules (OAR) 410-122-0510 criteria for Ultrasonic Bone Growth Stimulators (E0760) and Electronic Bone Growth Stimulators (E0747- E0748).

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.

20974 Electrical stimulation to aid bone healing; noninvasive (non-operative)-

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-

E0748 Osteogenesis stimulator, electrical, noninvasive, 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 - 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:** 11/1/2023

Policy type: Enterprise

Author(s):

Depts.: Health Services

Applicable regulation(s):

Commercial Ops: 11/2022

Government Ops: 12/2022