

# MVP/Preferred Care BENEFIT INTERPRETATION MANUAL

## Bone Growth Stimulator

### Type of Policy

Durable Medical Equipment

### Codes

CPT 4 Procedure codes-20974, 20975, 20979

E0748, E0749, E0747, E0760

ICD 9 Procedure codes- 99.86,78.9x

ICD Diagnosis Code: 715.98,730.28,733.82,755.50,755.60,905.5

### Evidence Basis for Policy

**Some proven benefit.** This rating indicates that there are reasonably good data to support its use in the cited application(s). Further research is required to clarify clinical indications, contraindications, dosage/duration, comparison with alternative technologies, and/or impact on clinical outcomes.

### Description

Electrical Bone Stimulators administer an electrical current to facilitate the healing process of a bone fracture or enhance the union of a fracture or bone fusion that has not healed in the normal amount of time. The device can be invasive (implanted) or placed noninvasive (externally).

Ultrasound bone stimulators provide a non-thermal , low-intensity pulsed ultrasound to the fracture site to stimulate bone growth and regeneration..

### Indications/Criteria

**Non-invasive electrical** bone growth stimulation is considered medically appropriate for:

- the treatment of long bone non-union fractures in members who will comply with non-weight bearing and whose fracture gap is 1 cm. or less;
- the treatment of infantile non-union fractures;
- the treatment of failed joint fusion where a minimum of nine (9) months has elapsed since the last surgery;
- congenital pseudoarthroses; and
- when used as an adjunctive therapy with spinal fusion for members considered at high risk for pseudoarthrosis. This includes, but is not limited to, those with the following conditions:

- one or more previous failed spinal fusions;
- grade II or worse spondylolisthesis;
- fusion to be performed at more than one level; or
- disease process or condition which interfere with the healing process (i.e. diabetes, renal disease, alcoholism, smoking).

**Invasive (implantable) bone growth stimulation** is considered medically appropriate for:

- non-union of long bone fractures;
- when used as an adjunctive therapy with spinal fusion for members considered at high risk for pseudoarthrosis. This includes, but is not limited to, those with the following conditions:
  - one or more previous failed spinal fusion grade II or worse spondylolisthesis;
  - fusion to be performed at more than one (1) level; or
  - disease process or condition which interfere with the healing process ( i.e. diabetes, renal disease, alcoholism, smoking).

**Ultrasonic Bone Growth Stimulators** are indicated as medically reasonable and necessary for the non-invasive treatment of the following:

- established non-union fractures, excluding skull and vertebra, without prior surgical intervention; and
- for accelerating the time to a healed fracture for fresh, closed, posteriorly displaced distal radius fractures and fresh, closed or grade one (1) open tibial diaphysis in skeletally mature individuals when these fractures are orthopedically managed by closed reduction and cast immobilization.

### **Exclusions/Limitations**

- Bone growth stimulators are not covered for any reason other than those listed in *Indications/Criteria*.
- A long bone is limited to a clavicle, humerus, radius, ulna, femur, tibia, fibula, metacarpal, or metatarsal.
- A nonunion of long bone fractures for noninvasive, invasive and ultrasound devices is considered to exist when serial radiographs have confirmed that fracture healing has ceased for three (3) or more months prior to starting treatment with a bone stimulator. A minimum of two sets of radiographs separated by 90 days with multiple views of the fracture site must be sent with written documentation by the physician stating that there has been no clinically significant evidence of fracture healing between the two sets of radiographs.
- Both Invasive (implantable) and Non-Invasive electrical bone growth stimulation methods are contraindicated in:
  - pregnant or nursing women ;
  - fractures of children's epiphysis;
  - severe osteoporosis;
  - systemic disorders ( i.e. lupus, multiple sclerosis, etc.); and/or
  - members with demand pacemakers unless consultation and monitoring with cardiologist occurs.

- Invasive (implantable) electrical stimulation methods are also contraindicated in the presence of:
  - pathological fracture due to malignant tumors, or
  - active osteomyelitis.
- Non-invasive electrical stimulation methods are also contraindicated in:
  - non union fractures when the fracture gap is >one (1) cm; or
  - members who are uncooperative, and/or have mental or physical conditions that preclude compliance.
- Ultrasonic bone stimulators:
  - are not indicated in non-union fractures of the skull, vertebrae and those that are tumor-related;
  - may not be used concurrently with non-invasive electric bone growth stimulators;
  - may not be used in pregnant or nursing women;
  - are contraindicated in members with active implantable devices, such as cardiac pacemakers without evaluation by the attending cardiologist or physician;
  - may not be used for more than one treatment period of twenty (20) minutes each day; and
  - may not be used in patients  $\leq 17$  or  $\geq 86$  years of age.

**DME is a contract exclusion of the Healthy New York and Vermont Compcare contracts.**

***Vermont Compcare contract and the Healthy New York contract provide DME benefits with the diagnosis of Breast cancer and diabetes only, otherwise DME is a contract exclusion.***

## **Vermont HDHP POS Out of plan**

### **References**

HAYES Directory (2001, April) Electrical bone growth stimulation, invasive. Available on-line to subscribers: [hayesinc.com/subscribers](http://hayesinc.com/subscribers).

HAYES Directory , Updated Search (2003, October) Electrical bone growth stimulation, non-invasive. Available on-line to subscribers: [hayesinc.com/subscribers](http://hayesinc.com/subscribers).

HAYES Directory (2003, October) Ultrasound bone growth stimulation. Available on-line to subscribers: [hayesinc.com/subscribers](http://hayesinc.com/subscribers).

Health Technology Assessment Information Service, (1999), Electrical bone growth stimulation for the lower leg. ECRI Hotline. Available on-line to subscribers: [ecri.org](http://ecri.org).

Health Care Financing Administration, Medicare Coverage Policy~Decisions (2000), Ultrasound stimulation for nonunion fracture healing (#CAG-00022). Available on-line: [hcfa.gov/coverage/8b3%2Dbb2.htm](http://hcfa.gov/coverage/8b3%2Dbb2.htm).

Medicare Program Memorandum Transmittal AB-00-05, (2000) , Expanded coverage of the electrical osteogenic stimulator for fracture healing. Effective for services performed on or after 4/1/2000. Available: [ihshealth.com](http://ihshealth.com).

TriCenturion LLC Regional Medical Review Policies (RMRPs). 14.07 Osteogenic Stimulators (Effective date 2002, 01, July). Available on-line: [tricenturion.com/content/dmerc/0602\\_14\\_07osteogenesis\\_stimulators.cfm](http://tricenturion.com/content/dmerc/0602_14_07osteogenesis_stimulators.cfm).

**Approval(s) & Revision(s)**

Medical:

Review:

Surgical Advisory Team:

Approval:

Medical Director Sign-off

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**Note:** For Preferred Care authorization requirements refer to Appendix A and Appendix B in the Referral/Precertification/Prior Authorization/Notification Administrative Policy. You may also refer to the "Prior Authorization/Precertification of Certain Prescription Drugs" for information on drugs that require precertification and prior authorization.. Both policies are available on the *easyLink* for Providers at [www.preferredcare.org](http://www.preferredcare.org).