BLUE CROSS OF NORTHEASTERN PA "BCNEPA" MEDICAL POLICY BULLETIN	**MANUAL:** MEDICAL POLICY
	REFERENCE NO.: MPO-490-0025
EFFECTIVE DATE April 1, 2014	**SUBJECT:** Electrical Bone Growth Stimulator

Blue Cross of Northeastern Pennsylvania ("BCNEPA") Medical Policy

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical policy and claims payment policy are applied. Policies are provided for informational purposes only and are developed to assist in administering plan benefits and do not constitute medical advice. Treating providers are solely responsible for medical advice and treatment. Policies are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and information are constantly changing and BCNEPA may review and revise its medical policies periodically. Also, due to the rapid pace of changing technology and the advent of new medical procedures, BCNEPA may not have a policy to address every procedure. In those cases, BCNEPA may review other sources of information including, but not limited to, current medical literature and other medical resources, such as Technology Evaluation Center Assessments (TEC) published by the Blue Cross Blue Shield Association. BCNEPA may also consult with health care providers possessing particular expertise in the services at issue.

I. DESCRIPTION:

Electrical stimulation of a non-united fracture is a procedure whereby electrodes are placed either at the fracture site or around the fracture site and an electrical current is delivered to the fracture.

II. BENEFIT POLICY STATEMENT:

BCNEPA makes decisions on coverage based on Policy Bulletins, benefit plan documents, and the member's medical history and condition. Benefits may vary based on product line, group or contract, therefore, Member benefits must be verified. In the event of a conflict between the Member's benefit plan document and topics addressed in Medical Policy Bulletins (i.e., specific contract exclusions), the Member's benefit plan document always supersedes the information in the Medical Policy Bulletins. BCNEPA determines medical necessity only if the benefit exists and no contract exclusions are applicable.

Benefits are determined by the terms of the Member's specific benefit plan document [i.e., the Fully Insured policy, the Administrative Services Only (ASO) agreement applicable to the Self-Funded Plan Participant, or the Individual Policy] that is in effect at the time services are rendered.

III. MEDICAL POLICY STATEMENT:

Coverage is subject to the terms, conditions, and limitations of the member's contract.

Electrical Bone Growth Stimulation of the Appendicular Skeleton

A. BCNEPA will provide coverage for electrical bone growth stimulation when medically necessary.

1. Noninvasive electrical bone growth stimulation may be considered medically necessary as treatment of fracture non-unions or congenital pseudoarthroses in the appendicular skeleton. The diagnosis of fracture non-union must meet ALL of the following guidelines:

    a) At least three (3) months have passed since the date of fracture; and

    b) Serial radiographs have confirmed that no progressive signs of healing have occurred; and

    c) The fracture gap is one cm or less; and

    d) The patient can be adequately immobilized and is of an age where likely to comply with non-weight bearing.

2. Noninvasive electrical bone growth stimulation is considered not medically necessary as a treatment of fracture non-unions or congenital pseudoarthroses in the appendicular skeleton when all of the above guidelines have not been met.

3. BCNEPA will not provide coverage for applications of electrical bone growth stimulation that are considered investigational including, but not limited to, immediate post-surgical treatment after appendicular skeletal surgery, or for the treatment of fresh fractures, delayed union, or failed arthrodesis (See Definition).

4. BCNEPA will not provide coverage for implantable and semi-invasive electrical bone growth stimulators as these are considered investigational.

Electrical Stimulation of the Spine as an Adjunct to Spinal Fusion Procedures

B. BCNEPA will provide coverage for electrical bone growth stimulation when medically necessary.

1. Invasive and non-invasive methods of electrical bone growth stimulation may be considered medically necessary as an adjunct to lumbar spinal fusion surgery in patients at high risk for fusion failure, defined as any one of the following criteria:

    a) One or more previous failed fusion(s);

    b) Grade III or worse spondylolisthesis;

    c) Fusion to be performed at more than one level;

    d) Current smoking habit;

    e) Diabetes;

    f) Renal disease;

    g) Alcoholism; and

    h) Steroid use.

2. Invasive and non-invasive methods of electrical bone growth stimulation are considered not medically necessary as an adjunct to lumbar spinal fusion surgery in patients not meeting criteria for high risk fusion failure.

3. Noninvasive electrical bone stimulation may be considered medically necessary as a treatment of patients with failed lumbar spinal fusion. Failed spinal fusion is defined as a spinal fusion that has not healed at a minimum of 6 months after the original surgery, as evidenced by serial x-rays over a course of 3 months.

4. BCNEPA will not provide coverage for semi-invasive electrical stimulation as an adjunct to lumbar fusion surgery and for failed lumbar fusion since this is considered investigational.

5. BCNEPA will not provide coverage for invasive, semi-invasive and non-invasive electrical stimulation as an adjunct to cervical fusion surgery and for failed cervical spine fusion since this is considered investigational.

Ultrasound Accelerated Fracture Healing Device

C. BCNEPA will provide coverage for low-intensity ultrasound treatment when medically necessary.

1. Low-intensity ultrasound treatment may be considered medically necessary when used as an adjunct to conventional management (i.e., closed reduction and cast immobilization) for the treatment of fresh, closed fractures in skeletally mature individuals. Candidates for ultrasound treatment are those at high risk for delayed fracture healing or nonunion. These risk factors may include either locations of fractures or patient comorbidities including:

   a) Patient comorbidities:

      - Diabetes
      - Steroid therapy
      - Osteoporosis
      - History of alcoholism
      - History of smoking

   b) Fracture locations:

      - Jones fracture
      - Fracture of navicular bone in the wrist (also called the scaphoid)
      - Fracture of metatarsal
      - Fractures associated with extensive soft tissue or vascular damage

2. Low-intensity ultrasound treatment may be considered medically necessary as a treatment of delayed union of bones.

3. Low intensity ultrasound treatment may be considered medically necessary as a treatment of fracture nonunions of bones.

4. BCNEPA will not provide coverage for other applications of low intensity ultrasound treatment including, but not limited to, treatment of congenital pseudarthroses, open fractures, fresh surgically-treated closed fractures, stress fractures, arthrodesis or failed arthrodesis, since these applications are considered investigational.

IV. DEFINITIONS:

Electrical Bone Growth Stimulation: The following methods of electrical bone growth stimulation:

1. Non-invasive
2. Invasive
3. Semi-invasive

Non-invasive (Non-Operative) Procedure: Uses an external power supply and externally applied coils that produce pulsed electromagnetic fields (PEMFs), which generate a current through the site where bone growth is desired.

Invasive (Operative) Procedure: Uses a current generator that is surgically implanted in an intramuscular or subcutaneous space connected to an electrode that is implanted within the bone fragments which are hoped to be fused. The power source is removed in a second surgical procedure once it has discharged.

Semi-Invasive or Percutaneous Procedure: Uses an external power supply and electrodes that are inserted through the skin and into the bone where growth is desired.

Long Bone: The single long bone in the thigh and forearm and the two long bones in the leg and arm.

Delayed Union: A decelerating healing process as determined by serial x-rays, together with a lack of clinical and radiologic evidence of union, bony continuity, or bone reaction at the fracture site for no less than 3 months from the index injury or the most recent intervention.

Non-union: Failure of progression of fracture-healing for at least 3 consecutive months (and at least 6 months following the fracture) accompanied by clinical symptoms of delayed/nonunion (pain, difficulty weight bearing).

Osteogenic Stimulator: A device that provides electrical stimulation to augment bone repair. A noninvasive stimulator is characterized by an external power source, which is attached to a coil or electrodes placed on the skin or on a cast or brace over a fracture or fusion site.

Multilevel Level Fusion: One which involves three (3) or more vertebrae (e.g., L3-L5, L4-S1, etc).

Appendicular Skeleton: Includes the bones of the shoulder girdle, upper extremities, pelvis, and lower extremities.

Ultrasonic Osteogenic Stimulator: Is a noninvasive device that emits low intensity, pulsed ultrasound. The ultrasound signal is applied to the skin surface at the fracture location via ultrasound, conductive, coupling gel in order to accelerate the healing time of the fracture. The device is intended for use with cast immobilization.

Fresh Fracture: A fracture is most commonly defined as “fresh” for 7 days after the fracture occurs. Most fresh closed fractures heal without complications with the use of standard fracture care, i.e., closed reduction and cast immobilization.

-PLEASE SEE CODING ON NEXT PAGE-

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BCNEPA CODING

Covered procedure codes are dependent upon meeting criteria of the policy and appropriate diagnosis code.
Benefits are determined by the Member's fully insured policy or the administrative services only agreement applicable to the Self-Funded plan Participant that is in effect at the time services are rendered.

PROCEDURE CODES

20974	20975	20979	E0747	E0748	E0749	E0760