

Department of Origin: Integrated Healthcare Services	Effective Date: 09/13/22
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 09/13/22
Clinical Policy Document Bone Growth Stimulators (Osteogenic), Electrical and Ultrasonic	Replaces Effective Clinical Policy Dated: 09/14/21
Reference #: MC/F021	Page: 1 of 5

PURPOSE:

The intent of this clinical policy is to ensure services are medically necessary.

Please refer to the member’s benefit document for specific information. To the extent there is any inconsistency between this policy and the terms of the member’s benefit plan or certificate of coverage, the terms of the member’s benefit plan document will govern.

POLICY:

Benefits must be available for health care services. Health care services must be ordered by a provider. Health care services must be medically necessary, applicable conservative treatments must have been tried, and the most cost-effective alternative must be requested for coverage consideration.

GUIDELINES:

Medical Necessity Criteria - Must satisfy any of the following: I or II

- I. Electrical Bone Growth Stimulator (invasive or non-invasive [external]) – must satisfy any of the following: A - D
 - A. As treatment of members with failed spinal fusion (HCPCS E0748 [non-invasive]) – must satisfy all of the following: 1 and 2
 1. Previously failed spinal fusion (where a minimum of 6 months has elapsed since surgery); and
 2. Serial radiographs or other appropriate imaging studies confirm no evidence of progression of healing for 3 or more months during the latter portion of the 6-month period.
 - B. As an adjunct to spinal fusion surgery (HCPCS E0748 [non-invasive] or E0749 [invasive]) – must satisfy any of the following: 1 - 3
 1. Multi-level (two or more interspaces, three or more vertebrae) spinal fusion to be performed; or
 2. *Grade III or worse spondylolisthesis*; or
 3. Presence of risk factors for fusion failure – any of the following: a - f
 - a. Smoking; or
 - b. Diabetes; or
 - c. Renal disease; or
 - d. Obesity (BMI greater than or equal to 30); or
 - e. Alcoholism; or
 - f. Chronic steroid therapy.
 - C. Fracture non-union of the appendicular skeleton (includes bones of the shoulder girdle, upper extremities, pelvis, and lower extremities) (HCPCS E0747) – must satisfy all of the following: 1 and 2
 1. Fracture gap is less than or equal to 1 cm; and

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2. Serial radiographs or other appropriate imaging studies confirm no evidence of progression of healing for a minimum of 3 months prior to starting treatment with electrical bone growth stimulator despite appropriate fracture care.

D. Congenital pseudoarthrosis

II. Ultrasonic Bone Growth Stimulators (HCPCS E0760) – must satisfy any of the following: A - B

A. As an adjunct to conventional fracture management of fresh, closed fracture when any of the following are present: 1 - 5

1. Closed distal radius fracture (Colles'); or
2. Fifth metatarsal fracture (Jones'); or
3. Scaphoid/ navicular carpal fracture; or
4. Tibial diaphyseal fracture.
5. Fractures at high-risk for non-union due to any of the following: a - c
 - a. Poor vascular supply at site of fracture; or
 - b. Extensive soft tissue or vascular damage; or
 - c. Presence of comorbidities, which include any of the following: 1) – 7)
 - 1) Smoking; or
 - 2) Diabetes, renal disease, or any metabolic diseases; or
 - 3) Alcoholism; or
 - 4) Nutritional deficiency; or
 - 5) Obesity (BMI greater than or equal to 30); or
 - 6) Anemia; or
 - 7) Steroid therapy

B. Fracture non-union of the appendicular skeleton (includes bones of the shoulder girdle, upper extremities, pelvis, and lower extremities) - must satisfy all of the following: 1 - 2

1. Fracture gap is less than or equal to 1cm; and
2. Serial radiographs or other appropriate imaging studies confirm no evidence of progression of healing for 3 or more months prior to starting treatment with ultrasonic bone growth stimulator despite appropriate fracture care.

EXCLUSIONS (not limited to):

Refer to member's Certificate of Coverage or Summary Plan Description

The following are considered investigative (see Investigative List): I - II

- I. Electrical Bone Growth Stimulator
 - A. Avascular necrosis of the hip; or
 - B. Charcot arthropathy; or
 - C. Charcot foot; or
 - D. Draining osteomyelitis; or

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- E. Fresh fracture; or
- F. Synovial pseudoarthrosis; or
- G. Scapula or pelvis fracture; or
- H. Lunate fracture.

- II. Ultrasonic Bone Growth Stimulator
 - A. As an adjunct to bunionectomy; or
 - B. Fracture, failed fusion, or non-union of the axial skeleton (skull or vertebrae); or
 - C. Congenital pseudoarthrosis; or
 - D. Fresh fractures that require surgical intervention; or
 - E. Fresh fractures that are Grade II or III; or
 - F. Pathological fracture; or
 - G. Tibial stress fracture.

DEFINITIONS:

Electrical bone growth stimulator:

A stimulator utilizing electrical current to promote bone healing and may either be situated outside the skin or surgically implanted.

Fresh fracture:

Less than or equal to 7 days duration

Invasive stimulator:

A surgically implantable electrical bone growth stimulator that sends direct current to the fracture or non-fusion site to promote healing.

Long bones:

These are bones consisting of a diaphysis (shaft) and 2 epiphyses (ends), and are usually found in the extremities (eg, clavicle, humerus, radius, ulna, femur, tibia, fibula, metacarpals, metatarsals, phalanges).

Non-invasive stimulator:

An electrical bone growth stimulator comprised of a power supply and treatment coils placed outside of the skin on the fracture or non-fusion site. The three types of non-invasive stimulators are: Capacitive Coupling (CC) devices, Pulsed Electromagnetic Field (PEMF) devices, and Combined Magnetic Field (CMF) devices.

Pseudoarthrosis:

A condition in which a bone does not heal after fracture.

Spondylolisthesis:

A condition in which a vertebra usually located in the lower region of the spine slips from its original position and slides forward over the vertebra located below it.

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Spondylolisthesis Grades:

Grade I	25% of vertebral body has slipped forward
Grade II	50%
Grade III	75%
Grade IV	100%
Grade V	Vertebral body completely fallen off (ie, spondyloptosis)

Ultrasound bone growth stimulator:

A stimulator placed outside the skin over the fracture or non-fusion site and emit low-intensity ultrasound signals to the fracture or non-fusion site to promote healing.

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Prior Authorization: No

CODING:

CPT® or HCPCS

E0747 Osteogenesis stimulator, electrical, noninvasive, other than spinal applications (eg, OrthoLogic 1000)

E0748 Osteogenesis stimulator, electrical, noninvasive, spinal applications (eg, Spinal Stim)

E0749 Osteogenesis stimulator, electrical, surgically implanted (eg, SpF-2)

E0760 Osteogenesis stimulator, low intensity ultrasound, noninvasive (eg, Sonic Accelerated Fracture Healing System [SAFHS])

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REFERENCES:

1. Integrated Healthcare Services Process Manual: UR015 Use of Medical Policy and Criteria
2. Clinical Policy: MP/C009 Coverage Determination Guidelines
3. Centers for Medicare and Medicaid Services (CMS). National coverage determination (NCD) for osteogenic stimulators. 04/27/2005. Manual Section Number:150.2. Retrieved from <https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=65&ncdver=2&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=Minnesota&Keyword=osteogenic+stimulato&KeywordLookup=Title&KeywordSearchType=And&bc=gAAAACAAAAAAAAA%3d%3d&>. Accessed 06-02-22.
4. Kane WJ. Direct current electrical bone growth stimulation for spinal fusion. *Spine* 1988 Mar;13(3):363-5.
5. Minnesota Department of Human Services. Bone Growth Stimulators. MHCP Provider Manual. Revised 04-15-21. Retrieved from http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelect ionMethod=LatestReleased&dDocName=dhs16_149902#. Accessed 06-02-22.
6. Nerubay J, Marganit B, Bubis JJ, Tadmor A, Katznelson A. Stimulation of bone formation by electrical current on spinal fusion. *Spine* 1986 Mar;11(2):167-9.
7. Optimizing Outcomes with Fresh and Nonunion Fractures Using Low-Intensity Pulsed Ultrasound. *Journal of Managed Care Medicine*, 10(2 Supplement).
8. Sinai Hospital Web site. Nonunion. International Center for Limb Lengthening. Retrieved from http://www.lifebridgehealth.org/RIAO/NonunionsPseudarthrosis.aspx?cpsys_redirect=404 . Accessed 06-02-22.

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Nondiscrimination & Language Access Policy

Aspirus Health Plan, Inc. complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. *We* do not exclude people or treat them differently because of race, color, national origin, age, disability, or sex.

We will:

- Provide free aids and services to people with disabilities to communicate effectively with us, such as:
 - Qualified sign language interpreters
 - Written information in other formats (large print, audio, accessible electronic formats, other formats)
- Provide free language services to people whose primary language is not English, such as:
 - Qualified interpreters
 - Information written in other languages

If *you* need these services, contact *us* at the phone number shown on the inside cover of this *COC*, *your* id card, or aspirushealthplan.com.

If *you* believe that *we* have failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, *you* can file a grievance with:

Nondiscrimination Grievance Coordinator
Aspirus Health Plan, Inc.
PO Box 1062
Minneapolis, MN 55440
Phone: 1. 866.631.5404 (TTY: 1.866.631.8597)
Fax: 763.847.4010
Email: customerservice@aspirushealthplan.com

You can file a grievance in person or by mail, fax, or email. If *you* need help filing a grievance, the Nondiscrimination Grievance Coordinator is available to help *you*.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at:

U.S. Department of Health and Human Services
200 Independence Avenue, SW
Room 509F, HHH Building
Washington, D.C. 20201
1-800-368-1019, 800-537-7697 (TDD)

Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>.

Language Assistance Services

Albanian: KUJDES: Nëse flitni shqip, për ju ka në dispozicion shërbime të asistencës gjuhësore, pa pagesë. Telefononi në 1.866.631.5404 (TTY: 1.866.631.8597).

تنبيه: إذا كنت تتحدث اللغة العربية، فإن خدمات المساعدة اللغوية 1.866.631.5404 (رقم هاتف الصم والبك : 1.866.631.8597) متاحة لك مجاناً. اتصل بن اعلى رقم الهاتف
Arabic

French: ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1.866.631.5404 (ATS : 1.866.631.8597).

German: ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1.866.631.5404 (TTY: 1.866.631.8597).

Hindi: _यान द_ : य_द आप िहंदी बोलते ह_ तो आपके िलए मु_त म_ भाषा सहायता सेवाएं उपल_ध ह_। 1-800-332-650 (TTY: 1.866.631.8597) पर कॉल कर_।

Hmong: LUS CEEV: Yog tias koj hais lus Hmoob, cov kev pab txog lus, muaj kev pab dawb rau koj. Hu rau 1.866.631.5404 (TTY: 1.866.631.8597).

Korean: 주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1.866.631.5404 (TTY: 1.866.631.8597) 번으로 전화해 주십시오.

Polish: UWAGA: Jeżeli mówisz po polsku, możesz skorzystać z bezpłatnej pomocy językowej. Zadzwoń pod numer 1.866.631.5404 (TTY: 1.866.631.8597).

Russian: ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1.866.631.5404 (телетайп: 1.866.631.8597).

Spanish: ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.866.631.5404 (TTY: 1.866.631.8597).

Tagalog: PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nangwalang bayad. Tumawag sa 1.866.631.5404 (TTY: 1.866.631.8597).

Traditional Chinese: 注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1.866.631.5404 (TTY : 1.866.631.8597)

Vietnamese: CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1.866.631.5404 (TTY: 1.866.631.8597).

Pennsylvania Dutch: Wann du Deitsch (Pennsylvania German / Dutch) schwetzscht, kannscht du mitaus Koschte ebbergricke, ass dihr helft mit die englisch Schprooch. Ruf selli Nummer uff: Call 1.866.631.5404 (TTY: 1.866.631.8597).

Lao: ໂປດຊາບ: ຖ້າວ່າ ທ່ານເວົ້າພາສາ ລາວ, ການບໍລິການຊ່ວຍເຫຼືອດ້ານພາສາ, ໂດຍບໍ່ເສັຽຄ່າ, ແມ່ນມີພ້ອມໃຫ້ທ່ານ. ໂທສ 1.866.631.5404 (TTY: 1.866.631.8597).