SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation

MCG Health
Ambulatory Care
25th Edition

AUTH: SHP Durable Medical Equipment 09 v3 (AC)

Link to Codes

Coverage

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.

Application to Products

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

Policy is applicable to all products.

Authorization Requirements

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

Pre-certification by the Plan is required.

Description of Item or Service

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

Bone Growth Stimulators is a therapy to accelerate healing of fractured bones, fusions, or delayed unions.

Electrical bone growth stimulator is a noninvasive device applied to the skin at the site of fracture which provides electrical stimulation for bone repair.

Exceptions and Limitations

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

- There is insufficient scientific evidence to support the medical necessity of non-spinal electrical Bone Growth Stimulators as they is not shown to improve health outcomes upon technology review for all of the following:
    - Fresh fractures

- Stress fractures
- Synovial pseudoarthroses
- Toe fracture

- There is insufficient scientific evidence to support the medical necessity of Whole Body Vibration for the promotion of bone growth as it is not shown to improve health outcomes upon technology review.
- There is insufficient scientific evidence to support the medical necessity of bone growth stimulators for uses other than those listed in the clinical indications for procedure section.

Clinical Indications for Procedure

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

- Bone growth stimulators are considered medically necessary for indications of **1 or more** of the following
  - Spinal Electrical or Ultrasonic Bone Growth Stimulation is considered medically necessary with **1 or more** of the following
    - When used as an adjunct to spinal fusion surgery for individuals at risk for pseudoarthritis with **1 or more** of the following
      - One or more previously failed spinal fusion(s)
      - Grade II or worse spondylolisthesis
      - Fusion to be performed at 2 levels or more
      - Current smoking habit
      - Diabetes or other metabolic diseases where bone growth is poor
      - Renal disease
      - Alcoholism
      - Obese individuals with BMI greater than 30
    - When used during single level spinal fusion and **2 or more** of the following
      - Active smoker or habitual smoker within the prior 6 months
      - Diabetes mellitus
      - Immunosuppressed individuals whose immunosuppression cannot be corrected
      - Individuals who cannot discontinue non-steroidal anti-inflammatory medications
      - Severe osteoporosis
      - Prior spinal fusion being extended by one level or more
      - Stable internal fixation of the fusion cannot be achieved
      - Active metabolic bone disease that cannot be corrected
      - Failed spinal fusion that has not healed within a minimum of 6 months after the original surgery
    - Spondylolysis (also known as pars inter-articularis fracture) when **1 or more** of the following occur:
      - Delay or non-union after 42 days
      - Failure of bracing treatment
  - Non-Spinal Electrical or Ultrasonic Bone Growth Stimulators may be considered medically necessary with **1 or more** of the following
    - Non-union fractures with **ALL** of the following
      - The date of the fracture or surgical treatment has been at least 42 days prior
      - Individual has a minimum of 2 sets of radiographs, obtained prior to starting treatment with the osteogenic stimulator, separated by a minimum of 90 days
    - Failed joint fusions with **ALL** of the following
      - The date of the fracture or surgical treatment has been at least 42 days prior
      - Individual has a minimum of 2 sets of radiographs, obtained prior to starting treatment with the osteogenic stimulator, separated by a minimum of 90 days
    - Failed arthrodesis with **ALL** of the following
      - The date of the fracture or surgical treatment has been at least 42 days prior
      - Individual has a minimum of 2 sets of radiographs, obtained prior to starting treatment with the osteogenic stimulator, separated by a minimum of 90 days
    - Congenital pseudoarthroses of the appendicular system with **ALL** of the following
      - The date of the fracture or surgical treatment has been at least 42 days prior

        - Individual has a minimum of 2 sets of radiographs, obtained prior to starting treatment with the osteogenic stimulator, separated by a minimum of 90 days
    - For the treatment of joint fusion secondary surgical arthrodesis (e.g. knee, ankle, subtalar, foot fusion) when performed immediately following revision surgery with **1 or more** of the following
        - Active smoker or habitual smoker within the prior 6 months
        - Diabetes mellitus
        - Immunosuppressed individuals whose immunosuppression cannot be corrected
        - Individuals who cannot discontinue non-steroidal anti-inflammatory medications
        - Severe osteoporosis
        - Stable internal fixation of the fusion cannot be achieved
        - Active metabolic bone disease that cannot be corrected
  - Electromagnetic or Ultrasonic bone growth stimulators are considered medically necessary with **ALL** of the following
    - Bone growth stimulator is being used as adjunctive treatment to cervical, thoracic, lumbar, sacral spine fusion.
    - Risk factors for fusion failure are present, as indicated by **1 or more** of the following
        - Comorbid condition associated with compromised bone healing (eg, diabetes, obesity, osteoporosis, current tobacco use)
        - Multilevel fusion
        - Previous failed fusion
        - Spondylolisthesis grade II or greater
- Non-spinal electrical or Ultrasonic Bone Growth Stimulators are **NOT COVERED** for **ANY** of the following
  - Fresh fractures
  - Stress fractures
  - Synovial pseudoarthroses
  - Toe fracture

Document History

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

- Revised Dates:
  - 2022: June (**Unarchived**)
  - 2021: November (**Archived**)
  - 2019: October
  - 2016: May
  - 2014: May, July
  - 2012: May
  - 2011: May, November
  - 2010: May
  - 2009: May
  - 2002: July
  - 2000: May, November
- Reviewed Dates:
  - 2019: December
  - 2018: July
  - 2017: November
  - 2016: June, December
  - 2015: May
  - 2013: May
  - 2010: June
  - 2008: January, May
  - 2007: April
  - 2005: February, November

- 2004: October
- 2002: June
- 1998: November
- 1994: February

- Effective Date: February 1991

Coding Information

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

- CPT/HCPCS codes covered if policy criteria is met:
  - CPT 20974 – Electrical stimulation to aid bone healing; noninvasive (nonoperative)
  - CPT 20975 – Electrical stimulation to aid bone healing; invasive (operative)
  - CPT 20979 - Low intensity ultrasound stimulation to aid bone healing, noninvasive (nonoperative)
  - HCPCS E0747 – Osteogenesis stimulator, electrical, noninvasive, other than spinal applications
  - HCPCS E0748 – Osteogenesis stimulator, electrical, noninvasive, spinal applications
  - HCPCS E0749 - Osteogenesis stimulator, electrical, surgically implanted
  - HCPCS E0760 - Osteogenesis stimulator, low intensity ultrasound, noninvasive
- CPT/HCPCS codes considered not medically necessary per this Policy:
  - None

References

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

References used include but are not limited to the following:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; Uptodate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2022). Retrieved May 20, 2022, from MCG 25th Edition: https://careweb.careguidelines.com/ed25/index.html

(2022). Retrieved May 20, 2022, from EncoderPro: https://www.encoderpro.com

(2022). Retrieved May 20, 2022, from American Academy of Orthopaedic Surgeons (AAOS): https://orthoinfo.aaos.org/en/diseases--conditions/nonunions

Bone Growth Stimulation: A Critical Analysis Review. (2017, Oct). Retrieved May 20, 2022, from Journal of Bone and Joint Surgery: https://www.researchgate.net/publication/319104836_Bone_Growth_Stimulation_A_Critical_Analysis_Review

DME Manual - Appendix B. (2022, Jan). Retrieved May 20, 2022, from DMAS DME: https://www.dmas.virginia.gov/for-providers/long-term-care/services/durable-medical-equipment/

General principles of definitive fracture management. (2021, Jun 21). Retrieved May 20, 2022, from UpToDate: https://www.uptodate.com/contents/general-principles-of-definitive-fracture-management?search=Bone%20Growth%20Stimulators&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

LCD Osteogenesis Stimulators (L33796). (2020, Jan 1). Retrieved May 20, 2022, from CMS LCD: https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=33796&ver=17&bc=0

NCD for Osteogenic Stimulators (150.2). (2005). Retrieved May 20, 2022, from CMS - NCD: https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=65

Noninvasive Electrical Bone Growth Stimulators For Acute, Delayed Union, And Nonunion Fractures - ARCHIVED Jul 30, 2021. (n.d.). Retrieved May 20, 2022, from Hayes 2: https://evidence.hayesinc.com/report/dir.electrical710

Codes

Return to top of *SHP Electric and Electromagnetic and Ultrasonic Bone Growth Stimulation - AC*

CPT® : 20974, 20975, 20979
HCPCS: E0747, E0748, E0749, E0760

MCG Health
Ambulatory Care 25th Edition