



CLINICAL GUIDELINES

CMM-603: Electrical and Low Frequency Ultrasound Bone Growth Stimulation (Spine) Guidelines

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eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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Clinical guidelines for medical necessity review of Comprehensive Musculoskeletal Management Services.

CMM-603: Electrical and Low Frequency Ultrasound Bone Growth Stimulation (Spine)

CMM-603.1: General Guidelines**CMM-603.2: Indications****CMM-603.3: Non-Indications****CMM-603.4: Procedure (CPT®) Codes****CMM-603.5: References**

CMM-603.1: General Guidelines

Application of Guideline

- The determination of medical necessity for the performance of electrical bone growth stimulation is always made on a case-by-case basis.
- For prior authorization requirements, see **CMM-600.1: Prior Authorization Requirements**.
- For the purposes of this guideline, the following timeframes apply:
 - ◆ Invasive electrical bone growth stimulation refers to electrical bone growth stimulation inserted at the time of the surgery
 - ◆ Non-invasive electrical bone growth stimulation refers to electrical bone growth stimulation inserted beginning at any time from the time of surgery until up to 6 months after surgery
 - ◆ **Note:** Please see below for timeframe exceptions related to **Urgent/Emergent Conditions/Indications**

Urgent/Emergent Indications/Conditions

- The presence of urgent/emergent indications/conditions warrants definitive surgical treatment. Confirmatory advanced imaging studies are required.
- Urgent/emergent indications/conditions for spine fusion surgery are exceptions to the above timeframes for invasive and non-invasive electrical bone growth stimulation excluding primary or metastatic neoplastic disease. Please see Urgent/Emergent Indications/Conditions in the following guidelines:
 - ◆ For anterior cervical fusion, see **CMM 601.1: General Guidelines**
 - ◆ For posterior cervical fusion, see **CMM-604.1 General Guidelines**
 - ◆ For lumbar fusion, see **CMM-609.1: General Guidelines**

CMM-603.2: Indications

Associated with an Approved Spinal Fusion Surgery

Invasive or noninvasive electrical bone growth stimulation is considered **medically necessary** when **ALL** of the following criteria are met:

- Performed for an associated approved spinal fusion surgery
- The individual is high risk for pseudarthrosis within the first 6 months after surgery as evidenced by the presence of **ONE or MORE** of the following risk factors for fusion failure:
 - ◆ Alcohol Use Disorder (AUD)
 - ◆ Body mass index (BMI) > 30
 - ◆ Diabetes, renal disease, or other metabolic diseases when bone healing is likely to be compromised
 - ◆ Glucocorticoid dependent
 - ◆ Meyerding Grade III or worse lumbar/lumbosacral spondylolisthesis
 - ◆ Multi-level spinal fusion including three (3) or more vertebrae

- ◆ Nutritional deficiency/malnutrition
- ◆ One or more previously failed spinal fusion(s)
- ◆ Osteoporosis defined as T-score of ≤ -2.5 on a recent (within one year) DEXA
- ◆ Severe anemia
- ◆ Smoking history
- ◆ Immunocompromised status

Treatment for Individuals with Failed Spinal Fusion

Noninvasive electrical bone growth stimulation is considered **medically necessary** as a treatment for individuals with failed spinal fusion when **BOTH** of the following criteria are met:

- A minimum of 6 months has passed since the date of the original surgery
- Serial plain X-rays or appropriate imaging studies confirm there is no evidence of progression of healing/consolidation of the spinal fusion for 3 months during the later portion of the 6 month post-fusion surgery period.

CMM-603.3: Non-Indications

Not Medically Necessary

- Invasive and non-invasive electrical bone growth stimulation performed without meeting the requirements listed in the General Guidelines and the Indications sections are considered **not medically necessary**.

Experimental, Investigational, or Unproven (EIU)

- Invasive and non-invasive electrical bone growth stimulation is considered **experimental, investigational, or unproven (EIU)** for **ALL** of the following:
 - ◆ Acute or chronic lumbar spondylolysis (pars interarticularis defect) with or without spondylolisthesis
 - ◆ Failed cervical or lumbar disc arthroplasty
 - ◆ Spinal malignancy
 - ◆ As non-surgical treatment of an established pseudarthrosis
- Semi-invasive electrical bone growth stimulation and low-intensity ultrasound stimulation is considered **experimental, investigational, or unproven (EIU)** for **ANY** spinal indication due to a lack of sufficient evidence of their effectiveness.

CMM-603.4: Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required.	
CPT®	Code Description/Definition
20974	Electrical stimulation to aid bone healing; noninvasive (nonoperative)
20975	Electrical stimulation to aid bone healing; invasive (operative)
20979	Low intensity ultrasound stimulation to aid bone healing, noninvasive (nonoperative)

HCPSC Codes	Code Description/Definition
E0748	Osteogenesis stimulator; electrical, noninvasive, spinal applications
E0749	Osteogenesis stimulator; electrical, surgically implanted
E0760	Osteogenesis stimulator; low intensity ultrasound, non-invasive
This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules.	

CMM-603.5: References

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