

# **CIGNA MEDICAL COVERAGE POLICIES - MUSCULOSKELETAL CMM-615: Electrical and Low Frequency US Bone Growth Stimulation Spine**

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**EviCore**  
By EVERNORTH

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## **Instructions for use**

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by EviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

These guidelines include procedures EviCore does not review for Cigna. Please refer to the [Cigna CPT code list](#) for the current list of high-tech imaging procedures that EviCore reviews for Cigna.

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# CMM-615.1: General Guidelines

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# CMM-615.1: General Guidelines

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## 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 additional timing and documentation 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 applied beginning at any time from the time of surgery until up to six (6) months after surgery for fusions at risk of failure and after six (6) months after surgery for fusions that have failed.
  - **Criteria exception:** 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. **Imaging findings noted in the applicable procedure section(s) are required.**
  - The above timeframes for invasive and non-invasive electrical bone growth stimulation are not applicable to confirmed urgent/emergent indications/conditions for spine fusion surgery. See the Urgent/Emergent Indications/Conditions section of the applicable General 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**.
    - For thoracic or thoracolumbar fusion, see **CMM-614.1: General Guidelines**.

## Health Equity Considerations

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following:

safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

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# CMM-615.2: Indications

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# CMM-615.2: Indications

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## Associated with an Approved Spinal Fusion Surgery

Invasive or non-invasive electrical bone growth stimulation is considered **medically necessary** when ALL of the following criteria have been met:

- Performed for an associated approved spinal fusion surgery
- The individual is high risk for pseudoarthrosis within the first six (6) months after surgery as evidenced by the presence of ANY 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 spondylolisthesis
  - multi-level spinal fusion including three (3) or more vertebrae
  - nutritional deficiency/malnutrition
  - one or more previously failed spinal fusion(s)
  - osteoporosis or osteopenia (T-score of < -1.0) on a recent (within one year) DEXA
  - severe anemia
  - smoking history
  - immunocompromised status

## Treatment for Individuals with Failed Spinal Fusion

Non-invasive electrical bone growth stimulation is considered **medically necessary** as a treatment for individuals with failed spinal fusion when BOTH of the following criteria have been met:

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

# CMM-615.3: Non-Indications

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## CMM-615.3: Non-Indications

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### Not Medically Necessary

- Invasive and non-invasive electrical bone growth stimulation performed without meeting the criteria in the **General Guidelines** (when applicable for urgent/emergent conditions) and the criteria in the applicable **Indications** section are considered **not medically necessary**.
- Invasive and non-invasive electrical bone growth stimulation are considered **not medically necessary** 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 pseudoarthrosis
- Low-intensity ultrasound bone growth stimulation is considered **not medically necessary** based on a lack of sufficient evidence of efficacy.

### Experimental, Investigational, or Unproven (EIU)

- Semi-invasive electrical bone growth stimulation is considered **experimental, investigational, or unproven** for ANY spinal indication based on a lack of sufficient evidence of efficacy.

# Codes (CMM-615)

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## Codes (CMM-615)

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The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.

Code	Code Description/Definition
<b>20974</b>	Electrical stimulation to aid bone healing; noninvasive (nonoperative)
<b>20975</b>	Electrical stimulation to aid bone healing; invasive (operative)
<b>20979</b>	Low intensity ultrasound stimulation to aid bone healing, noninvasive (nonoperative)
<b>E0748</b>	Osteogenesis stimulator; electrical, noninvasive, spinal applications
<b>E0749</b>	Osteogenesis stimulator; electrical, surgically implanted
<b>E0760</b>	Osteogenesis stimulator; low intensity ultrasound, non-invasive

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1. ECRI Institute. Hotline Response [database online]: *Electrical bone growth stimulation to enhance cervical vertebrae fusion*. Plymouth Meeting, PA. ECRI Institute. Jan 2007.
2. Foley KT, Mroz TE, Arnold PM, et al. Randomized, prospective, and controlled clinical trial of pulsed electromagnetic field stimulation for cervical fusion. *Spine J*. 2008;8(3):436-42. doi:10.1016/j.spinee.2007.06.006
3. Hills JM, Khan I, Archer KR, et al. Metabolic and endocrine disorders in pseudarthrosis. *Clin Spine Surg*. 2019;32(5):E252-E257. doi:10.1097/bsd.0000000000000788.4.
4. Hotta S. *Health Technology Assessment Review No. 8: Electrical Bone-Growth Stimulation and Spinal Fusion*. Agency for Health Care Policy and Research (AHCPR). AHCPR Pub No. 94-0014. 1994.
5. Kaiser MG, Eck JC, Groff MW, et al. Guideline update for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 17: Bone growth stimulators as an adjunct for lumbar fusion. *J Neurosurg Spine*. 2014;21(1):133-139. doi:10.3171/2014.4.SPINE14326.
6. Khalid SI, Nunna RS, Maasarani S, et al. Association of osteopenia and osteoporosis with higher rates of pseudarthrosis and revision surgery in adult patients undergoing single-level lumbar fusion. *Neurosurg Focus*. 2020;49(2):E6. doi:10.3171/2020.5.focus20289.
7. Koslosky E, Gendelberg D. Classification in Brief. *Clin Orthop Relat Res*. 2020;478(5):1125-1130. doi:10.1097/corr.0000000000001153.
8. Mooney V, A randomized double-blind prospective study of the efficacy of pulsed electromagnetic fields on interbody lumbar fusions. *Spine*. 1990;15(7):708-712. doi:10.1097/00007632-199007000-00016.
9. North American Spine Society (NASS). *Coverage Policy Recommendations: Electrical Stimulation for Bone Healing: Defining Appropriate Coverage Positions*. Oct 2016. © North American Spine Society. Burr Ridge, IL. Available at: [www.spine.org](http://www.spine.org).
10. National Coverage Determination (NCD) 150.2. *Osteogenic Stimulators*. Version 2. Implementation 08/01/2005. Available at: <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=65>.
11. Simmons JW Jr, Mooney V, Thacker I. Pseudarthrosis After Lumbar Spine Fusion: Nonoperative Salvage with Pulsed Electromagnetic Fields. *Am J Orthop (Belle Mead NJ)*. 2004;27-30.
12. Stasinopoulos D. Treatment of spondylolysis with external electrical stimulation in young athletes: a critical literature review. *Br J Sports Med*. 2004;38(3):352-354. doi:10.1136/bjism.2003.010405.
13. U.S. Food & Drug Administration (FDA). PMA P850035: *EVI SpF® Implantable Spinal Fusion Stimulator*. Available at: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?id=P850035>.
14. U.S. Food & Drug Administration (FDA). PMA P850007: *Orthofix SpinalStim™ Non-Invasive Bone Growth Stimulator*. Available at: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?ID=P850007S027>.
15. Washington State Health Care Authority. *Health Technology Assessment (HTA) 20090828B: Bone Growth Stimulation*. Oct 2009. Washington State Health Care Authority. Available at: [https://www.hca.wa.gov/assets/program/findings\\_decision\\_bgs\\_103009%5B1%5D.pdf](https://www.hca.wa.gov/assets/program/findings_decision_bgs_103009%5B1%5D.pdf).
16. Welch WC, Willis SL, Gerszten PC. Implantable direct current stimulation in para-axial cervical arthrodesis. *Adv Ther*. 2004;21(6):389-400. doi:10.1007/BF02850103.