

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

File Name: Electrical Stimulation of the Spine as an Adjunct to Spinal Fusion Procedures
File Code: 7.01.VT85
Origination: 08/2015
Last Review: 08/2022
Next Review: 08/2023
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Description/Summary

Both invasive and noninvasive electrical bone growth stimulators have been investigated as an adjunct to spinal fusion surgery, with or without associated instrumentation, to enhance the chances of obtaining a solid spinal fusion. Noninvasive devices have also been investigated in patients who are at normal risk of failed fusion to treat a failed fusion.

For individuals who are at high risk of lumbar spinal fusion failure surgery who receive invasive or noninvasive electrical bone growth stimulation, the evidence includes systematic reviews, a TEC Assessment, and randomized controlled trials (RCTs).

Relevant outcomes are symptoms, change in disease status, and functional outcomes. Results from these trials have indicated that, in patients with risk factors for failed fusion, either invasive or noninvasive electrical bone stimulation increases the fusion rate. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have failed lumbar spinal fusion surgery who receive noninvasive electrical bone growth stimulation, the evidence includes a TEC Assessment and studies with patients serving as their own controls. Relevant outcomes are symptoms, change in disease status, and functional outcomes.

Data have shown that noninvasive electrical stimulation improves fusion rates in this population. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who are undergoing cervical spinal fusion surgery or have failed cervical spine fusion who receive invasive or noninvasive electrical bone growth stimulation, the

evidence includes 1 RCT. Relevant outcomes are symptoms, change in disease status, and functional outcomes. The only controlled trial published to date had methodologic limitations and the efficacy of electrical stimulation in the cervical spine has not been established. The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy

Coding Information

Click the link below for attachments, coding tables & instructions.

[Attachment I - CPT® & HCPCS Code Table & Instructions](#)

Policy Guidelines

When a service may be considered medically necessary

Either invasive or noninvasive 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. High risk fusion failure is defined as any one of the following criteria:

- one or more previous failed spinal fusion(s);
- grade 3 or worse spondylolisthesis;
- fusion to be performed at more than one level;
- current tobacco use;
- diabetes;
- renal disease;
- alcoholism; or
- steroid use.

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 radiographs over a course of 3 months.

When a service is considered not medically necessary

When the above criteria are not met.

When a service is considered investigational

Semi-invasive electrical stimulation is considered **investigational** as an adjunct to lumbar fusion surgery and for failed lumbar fusion.

Invasive, semi-invasive, and noninvasive electrical stimulation are considered **investigational** as an adjunct to cervical fusion surgery and for failed cervical spine fusion.

Reference Resources

1. BCBSA MPRM 7.01.85 - Electrical Stimulation of the Spine as an Adjunct to Spinal Fusion Procedures. Last reviewed 5/2022. Accessed 8/2022.

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer's benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member's contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval is required for services as outlined in this policy. Benefits are subject to all terms, limitations and conditions of the subscriber contract.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

Policy Implementation/Update information

08/2015	BCBSA medical policy MPRM 7.01.85
10/2017	Aligned with BCBSA MPRM #7.01.8. Medical criteria changed to include invasive procedure language in policy statement. Literature and references reviewed. Coding Summary: removed duplicate coding table. Codes 20975 & E0749 removed from investigational to requiring PA. Removed ICD-10-CM coding table.
01/2019	Aligned with BCBSA MPRM 7.01.85, updated references no changes to policy statement.
09/2021	Policy reviewed. References simplified as policy mirrors BCBSA MPRM 7.01.85. Policy statement unchanged.
08/2022	Policy reviewed; reference updated. No changes to policy statement.

Eligible providers

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors

Date Approved

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Chief Medical Officer

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Senior Medical Director

Attachment I
CPT® & HCPCS Code Table & Instructions

Code Type	Number	Description	Policy Instructions
The following codes will be considered as medically necessary when applicable criteria have been met.			
CPT®	20974	Electrical stimulation to aid bone healing; noninvasive (non-operative)	Prior Approval is required
CPT®	20975	Electrical stimulation to aid bone healing; invasive (operative)	Prior Approval is required
HCPCS	E0748	Osteogenesis stimulator, electrical, non-invasive, spinal applications	Prior Approval is required
HCPCS	E0749	Osteogenesis stimulator, electrical, surgically implanted	Prior Approval is required