

MEDICAL POLICY

POLICY TITLE	H-WAVE ELECTRICAL STIMULATION
POLICY NUMBER	MP 6.049

CLINICAL BENEFIT	<input type="checkbox"/> MINIMIZE SAFETY RISK OR CONCERN. <input checked="" type="checkbox"/> MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. <input type="checkbox"/> ASSURE APPROPRIATE LEVEL OF CARE. <input type="checkbox"/> ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. <input type="checkbox"/> ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. <input type="checkbox"/> ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	4/1/2026

POLICY

The use of H-wave stimulation is considered **investigational** for all indications, including but not limited to:

- Treatment of pain
- Wound healing
- Post-operative treatment to improve function and/or range of motion

There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

Cross-references:

- MP 6.020 Transcutaneous Electrical Nerve Stimulation and Transcutaneous Afferent Patterned Stimulation**
- MP 6.046 Threshold Electrical Stimulation as a Treatment of Motor Disorders**
- MP 6.047 Interferential Current Stimulation**
- MP 6.050 Percutaneous Electrical Nerve Stimulation (PENS) and Percutaneous Neuromodulation Therapy (PNT)**

PRODUCT VARIATIONS

This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations. Please see additional information below.

FEP PPO: Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:

<https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies> .

Note* - The Federal Employee Program (FEP) Service Benefit Plan does not have a medical policy related to these services.

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DESCRIPTION/BACKGROUND

H-wave stimulation is a form of electrical stimulation that differs from other forms of electrical stimulation, such as transcutaneous electrical nerve stimulation (TENS), in terms of its wave form. H-wave stimulation has been used for the treatment of pain related to a variety of etiologies, such as diabetic neuropathy, muscle sprains, temporomandibular joint dysfunctions, or reflex sympathetic dystrophy. H-wave stimulation has also been used to accelerate healing of wounds such as diabetic ulcers and to improve range of motion and function after orthopedic surgery. H-wave electrical stimulation must be distinguished from the H-waves that are a component of electromyography.

RATIONALE

Summary

Two small controlled trials are insufficient to permit conclusions about the effectiveness of H-wave electrical stimulation as a pain treatment. Additional sham-controlled studies are needed from other investigators, preferably studies that are clearly blinded, specify the handling of any withdrawals, and provide long-term, comparative follow-up data. One small randomized controlled trial (RCT) represents insufficient evidence on the effectiveness of H-wave stimulation for improving strength and function after rotator cuff surgery. No comparative studies have been published evaluating H-wave stimulation to accelerate wound healing. In addition, no studies were identified that evaluated H-wave stimulation for any clinical application other than those described above.

Recent literature suggests that H-Wave electrical stimulation may provide clinically meaningful pain reduction and could serve as an adjunct within non-opioid, multimodal pain management strategies (Williamson et al.). This consideration is particularly relevant in the context of the ongoing opioid crisis. However, current evidence also emphasizes the need for higher-quality research and rigorous long-term clinical trials to validate appropriate use and define specific indications for most forms of electrical stimulation (Williamson et al.; Allen et al.). The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

DEFINITIONS

N/A

DISCLAIMER

Capital Blue Cross' medical policies are used to determine coverage for specific medical technologies, procedures, equipment, and services. These medical policies do not constitute medical advice and are subject to change as permitted by law or applicable clinical evidence from independent treatment guidelines. Treating providers are solely responsible for medical advice and treatment of members. These policies are not a guarantee of coverage or payment. Payment of claims is subject to a determination regarding the member's benefit program and eligibility on the date of service, and a determination that the services are

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medically necessary and appropriate. Final processing of a claim is based upon the terms of contract that applies to the members' benefit program, including benefit limitations and exclusions. If a provider or a member has a question concerning this medical policy, please contact Capital Blue Cross' Provider Services or Member Services.

CODING INFORMATION

Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational; therefore, not covered:

Procedure Codes							
E0745	G0283	97014					

REFERENCES

1. Blum K, Chen AL, Chen TJ et al. The H-Wave device is an effective and safe non-pharmacological analgesic for chronic pain: a meta-analysis. *Adv Ther* 2008; 25(7):644-57. PMID
2. Kumar D, Marshall HJ. Diabetic peripheral neuropathy: amelioration of pain with transcutaneous electrostimulation. *Diabetes Care* 1997; 20(11):1702-5. PMID
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5. Blum K, DiNubile NA, Tekten T et al. H-Wave, a nonpharmacologic alternative for the treatment of patients with chronic soft tissue inflammation and neuropathic pain: a preliminary statistical outcome study. *Adv Ther* 2006; 23(3):446-55. PMID
6. Blum K, Chen TJ, Martinez-Pons M et al. The H-Wave small muscle fiber stimulator, a nonpharmacologic alternative for the treatment of chronic soft-tissue injury and neuropathic pain: an extended population observational study. *Adv Ther* 2006; 23(5):739-49. PMID
7. Blum K, Chen AL, Chen TJ et al. Healing enhancement of chronic venous stasis ulcers utilizing H-WAVE® device therapy: a case series. *Cases J* 2010; 3:54. PMID
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9. Williamson TK, Rodriguez HC, Gonzaba A, Poddar N, Norwood SM, Gupta A. H-Wave® Device Stimulation: A Critical Review. *J Pers Med*. 2021;11(11):1134. Published 2021 Nov 2. doi:10.3390/jpm1111113

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10. Bajaj A, Han D, Elman I, et al. Positive Clinical Outcomes for Severe Reported Pain Using Robust Non-Addictive Home Electrotherapy-A Case-Series. *J Pers Med.* 2023;13(2):336. Published 2023 Feb 15. doi:10.3390/jpm13020336
11. Allen CB, Williamson TK, Norwood SM, Gupta A. Do Electrical Stimulation Devices Reduce Pain and Improve Function?-A Comparative Review. *Pain Ther.* 2023;12(6):1339-1354. doi:10.1007/s40122-023-00554-6

POLICY HISTORY

MP 6.049	04/14/2020 Consensus Review. No change to policy statement. References reviewed. Coding sheet checked with no new codes. Claims report completed.
	08/03/2021 Consensus Review. No change to policy statement. References and coding reviewed.
	09/16/2022 Consensus Review. No change to policy statement. FEP, references updated. Coding reviewed, no changes.
	11/03/2023 Consensus Review. No changes to policy statement. Rationale, references updated. Coding reviewed, no changes.
	11/21/2024 Consensus Review. No changes to policy statement. Cross-references updated. Coding reviewed, no changes.
	11/14/2025 Consensus Review. No changes to policy statement. Removed benefit variations. Updated cross-references, product variations, summary, definitions, disclaimer, and references. No coding changes.

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