Electromagnetic Therapy for Wounds

Policy Number: CS035.O
Effective Date: March 1, 2026

➲ Instructions for Use

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Related Community Plan Policies

- Durable Medical Equipment, Orthotics, Medical Supplies, and Repairs/Replacements

Commercial Policy

- Electromagnetic Therapy for Wounds

Application

This Medical Policy does not apply to the states listed below; refer to the state-specific policy/guideline, if noted:

State	Policy/Guideline
Idaho	Electromagnetic Therapy for Wounds (for Idaho Only)
Indiana	Electromagnetic Therapy for Wounds (for Indiana Only)
Kansas	Electromagnetic Therapy for Wounds (for Kansas Only)
Kentucky	Electromagnetic Therapy for Wounds (for Kentucky Only)
Nebraska	Electromagnetic Therapy for Wounds (for Nebraska Only)
New Jersey	Electromagnetic Therapy for Wounds (for New Jersey Only)
New Mexico	Electromagnetic Therapy for Wounds (for New Mexico Only)
North Carolina	Electromagnetic Therapy for Wounds (for North Carolina Only)
Ohio	Electromagnetic Therapy for Wounds (for Ohio Only)
Pennsylvania	Electromagnetic Therapy for Wounds (for Pennsylvania Only)
Tennessee	Electromagnetic Therapy for Wounds (for Tennessee Only)

Coverage Rationale

Electromagnetic therapy is unproven and not medically necessary due to insufficient evidence of efficacy for treating wounds or ulcers including but not limited to:

- Arterial ulcers
- Chronic pressure ulcers
- Diabetic foot ulcers
- Soft tissue injuries
- Venous stasis ulcers

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and

applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

HCPCS Code	Description
E0769	Electrical stimulation or electromagnetic wound treatment device, not otherwise classified
G0295	Electromagnetic therapy, to one or more areas, for wound care other than described in G0329 or for other uses
G0329	Electromagnetic therapy, to one or more areas for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care as part of a therapy plan of care

Description of Services

Electromagnetic therapy refers to the application of electromagnetic fields to the wound area, rather than direct application of an electrical current. This procedure is also referred to as pulsed electromagnetic induction, pulsed electromagnetic field, and pulsed electromagnetic therapy (ECRI, 2018).

Clinical Evidence

There is insufficient evidence of safety and efficacy in the published scientific literature to support the use of electromagnetic therapy (EMT) for treating chronic wounds and ulcers. The data from clinical trials are insufficient to prove efficacy or to evaluate the effects of this therapy compared with those of other treatment options.

Wang et al. (2024) conducted a systematic review and meta-analysis, which included the Aziz and Cullum 2015 study below, to assess the impact of EMT on venous leg ulcers (VLUs). The review comprised five studies. While some studies indicated that EMT might accelerate wound healing, the overall evidence was deemed inconclusive. The authors suggested that future research should aim to standardize research designs and protocols for EMT application in VLU treatment; use larger sample sizes to enhance the power and validity of results; and include long-term follow-up periods to evaluate the durability of EMT effects on VLUs and identify any delayed adverse effects or long-term benefits. The review's limitations include moderate evidence quality, mainly due to small sample sizes and variability in study designs.

A Cochrane Database systematic review was conducted to assess the effects of EMT on the healing of VLUs (Aziz and Cullum, 2015). Three randomized controlled trials (RCTs) comparing EMT with sham-EMT or other treatments, involving 94 individuals, were included. At day 50, two of 10 venous ulcers (20%) were healed in the EMT group compared with two of nine (22%) in the sham-EMT group. Assessment at 90 days found that 12 of 18 ulcers (67%) had healed in the EMT group compared with six of 19 (32%) in the sham group. No trials reported any evaluation of the precision of the reduction in wound size (change from baseline). Quality of life, using a validated scale, was not measured in any of the studies. At the end of the study, pain was reported to be lower in both the EMT and sham-EMT groups, but the difference between the groups was not significant. The authors concluded that no high-quality evidence on whether EMT speeds the healing of VLUs is available, and its effect is unclear. They stated that methodologically sound and robust RCTs are needed to further investigate any effect of using EMT to improve VLU healing. Several study limitations have been identified. This is a small study that did not conduct an intention-to-treat analysis. The methods for handling missing data in the trials varied, and data were missing in each arm. Another concern is that two of the studies were sponsored by the manufacturer of the electromagnetic devices.

In a Cochrane systematic review (Aziz and Bell-Syer, 2015), the effects of EMT on the healing of pressure ulcers were assessed. This review involved 60 individuals and included two RCTs comparing the use of EMT with sham EMT, no EMT, or treatments considered to be standard of care. One trial reported that 17 of 20 ulcers (85%) in the EMT group achieved complete healing within the duration of treatment compared with no healing ulcers in either of the other two groups. The reported risk ratio was 10.00 (95% CI, 0.70-143.06). The authors reported that findings between both groups were not statistically significant. The second trial reported that three of 10 stage II pressure ulcers (30%) and three of five stage III ulcers (60%) in the EMT group healed compared with none in the sham EMT group. The pooled risk ratio for stages II and III was 7.00 (95% CI, 0.97-50.38). The authors concluded that the reported results of these two studies did not indicate that healing of pressure ulcers was statistically significant with EMT treatment. No secondary outcomes, including costs, quality of life, pain, and acceptability of treatment, were assessed in either trial. The authors further reported that these two trials did not include strong evidence to support that EMT speeds pressure healing. The trials included small numbers of individuals and different regimens of treatment over different time scales. They added that further trials comparing EMT with sham therapy or standard of care are needed to establish whether or not EMT improves

the healing of pressure ulcers. They reported several study limitations, including an unclear risk of bias for blinding. While allocation to treatment groups was identified as randomized, no clear description on how the randomization was accomplished was available, and outcome data were incomplete.

Kwan et al. (2015) performed a prospective, randomized, double-blinded, controlled study to examine the effectiveness of pulsed electromagnetic field (PEMF) therapy in the management of diabetic foot ulcers compared with that in the control group. The study included 13 participants (seven in the PEMF group and six in the control group) diagnosed with type 2 diabetes and unsatisfactory healing of ulcer(s) in the preceding 4 weeks. Participants were randomly allocated to receive either active PEMF therapy (duration: 60 minutes; frequency: 12 Hz; intensity: 12 gauss) or nonactive PEMF for 14 sessions in 3 weeks. Assessment of wound closure, wound depth, and microcirculation was performed at baseline, the end of the treatment period, and the 1-month follow-up. At the posttreatment evaluation, the PEMF group had an 18% decrease, and the control group had a 4% decrease over time. At the 1-month follow-up, the average wound size in the PEMF group decreased by 35%. The control group followed a similar trend. By the end of the treatment period, an 18% decrease in wound size was observed in the active PEMF group compared with a 10% decrease in the control group. The PEMF group had an increase in cutaneous capillary blood velocity (by 28%) and a 14% increase in capillary diameter. The control group had a decrease in both capillary blood velocity and diameter. The authors concluded that PEMF seems to produce a favorable influence on accelerating wound closure, decreasing wound depth, and increasing microcirculation. Limitations of this study include the small sample size and different location of the ulcers on the feet, which could affect the treatment outcome.

Clinical Practice Guidelines

International Working Group on the Diabetic Foot (IWGDF)

The IWGDF conducted a systematic review, which identified six studies that investigated the use of electrical or electromagnetic stimulation for diabetic ulcers of the foot. The analysis of the studies provided limited evidence to suggest that these therapies might be beneficial in improving outcomes. The effects on wound healing were small, and no significant differences were noted compared with the standard of care. The IWGDF 2023 Wound Healing Guideline does not currently recommend the use of electromagnetic stimulation for diabetes-related full ulcer management (Chen et al., 2023).

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

The FDA has not approved any electromagnetic devices specifically for the treatment of chronic wounds. Use of these devices for wound healing is an off-label indication.

For additional information search Product Code ILX at:
https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm. (Accessed September 17, 2025)

References

Aziz Z, Bell-Syer SE. Electromagnetic therapy for treating pressure ulcers. Cochrane Database Syst Rev. 2015 Sep 3;2015(9):CD002930.

Aziz Z, Cullum N. Electromagnetic therapy for treating venous leg ulcers. Cochrane Database Syst Rev. Jul 2, 2015; 7:CD002933.

Chen P, Vilorio NC, Dhatariya K, et al. Guidelines on interventions to enhance healing of foot ulcers in people with diabetes (IWGDF 2023 update). Diabetes Metab Res Rev. 2023 May 25:e3644.

ECRI Institute. Electrical Stimulation and Electromagnetic Therapy for Chronic Wounds. Plymouth Meeting (PA): ECRI Institute; 2018 Apr 27. (Custom Rapid Responses).

Kwan RL, Wong WC, Yip SL, et al. Pulsed electromagnetic field therapy promotes healing and microcirculation of chronic diabetic foot ulcers: a pilot study. Adv Skin Wound Care. 2015 May;28(5):212-9.

Wang G, Zheng J, Wu H, Wu Y. Effects of electromagnetic therapy in treating patients with venous leg ulcers: an overview of systematic reviews. Int Wound J. 2024 Apr;21(4):e14852.

Policy History/Revision Information

Date	Summary of Changes
04/01/2026	**Template Update** • Removed content/language pertaining to the state of Louisiana
03/01/2026	**Supporting Information** • Updated *Clinical Evidence* and *References* sections to reflect the most current information • Archived previous policy version CS035.N

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state, or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state, or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state, or contractual requirements for benefit plan coverage govern. Before using this policy, check the federal, state, or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

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