

## Ulcers (Trophic)

This study examined the use of magnetotherapy coupled with galvanization and intratissue electrophoresis in 86 patients suffering from trophic ulcers. A "Potokl" apparatus with a density of current equal to 0.05–0.1 mA/cm2 was used to create an electrical field. The "MAG–30 apparatus for low-frequency magnetotherapy with induction of 30 mT and area of exposure of 20 cm2 was applied to a trophic ulcer site at the same time. Results led the authors to conclude that magnetogalvanotherapy is the recommended treatment for trophic ulcers of the lower extremities. **(1)** 

This review article discusses the theoretical and clinical applications of magnetic field therapy in the treatment of trophic ulcers of the lower limbs. (2)

This study looked at the effects of conventional trophic ulcer treatment alone and in combination with alternating magnetic field (AMF) or constant magnetic field (CMF) exposures in a group of patients suffering from various types of trophic ulcers of the lower limbs. Results showed an average hospital stay of 31 days in the CMF group and 27 days in the AMF group, compared to 40 days among controls. Based on these and related findings, the authors suggest combination AMF therapy to be most effective. **(3)** 

This placebo-controlled study examined the effects of pulsed electromagnetic fields in the treatment of

decubitus ulcers in hospitalized elderly patients with stage II and III pressure ulcers. Patients received daily PEMF stimulation in conjunction with conventional treatment for a period of up to 5 weeks. The findings were that combined PEMF/conventional treatment was superior to conventional treatment and to the placebo received controls. **(4)** 

Results of this study found that the daily use of electromagnetolaser therapy decreased mean healing time in patients suffering from lower extremity trophic ulcers to approximately 18 days, compared with approximately 26 days in patients receiving laser therapy alone. **(5)** 

This double-blind, placebo-controlled study found that treatment with non thermal pulsed electromagnetic energy (PEMET) accelerated would healing in spinal cord injury patients suffering from stage II and III pressure ulcers. PEMET treatment consisted of pulsed 27.12-MHz energy produced via a Diapulse device. Energy was delivered the use of a treatment head placed in wound dressings, in 30-minute periods twice a day for 12 weeks or until sores healed. **(6)** 

This double-blind, placebo-controlled study examined the effects of pulsed electromagnetic fields (75 Hz, 2.7 mT) applied 4 hours per day for a maximum of 3 months coupled with conventional therapies in patients suffering from trophic lesions. Results showed the treatment to have positive effects, but only on small lesions. **(7)** 

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# Ulcers (Trophic) (Cont.)

#### **Citations:**

(1) A.V. Alekseenko, Use of Magnetic Therapy Combined with Galvanization and Tissue Electrophoresis in the Treatment of Trophic Ulcers, Klin Khir, (7–8), 1993, p. 31–34.

(2) A. Sieron, Use of Magnetic Field in Treatment of Trophic Leg Ulcers, Pol Tyg Lek, 46(37–39), September 1991, p. 717–719.

(3) I.G. Sukhotnik, Comparative Effectiveness of Using Constant and Alternating Magnetic Fields in the Treatment of Trophic Ulcers, Vest Khir, 144(6), 1990, p. 123–124.

(4) S. Comorosan, The Effect of Diapulse Therapy on the Healing of Decubitus Ulcer, Romanian Journal of Physiol, 30(1-2), 1993, p. 41-45.

(5) F.V. Galimzianov, Laser and Electromagnetolaser Therapy for Trophic Ulcers of the Lower Extremities in Chronic Venous Insufficiency, Vestn Khir Im I I Grek, 152(5–6),1994, p. 70–72.

(6) C.A. Salzberg, The Effects of Non-Thermal Pulsed Electromagnetic Energy on Wound Healing of Pressure Ulcers in Spinal Cord-Injured Patients: A Randomized, Double-Blind Study, Wounds: A Compendium of Clinical Research and Practice, 7(1), 1995, p. 11-16.

(7) M. Jeran, PEMF Stimulation of Skin Ulcers of Venous Origin in Humans: Preliminary Report of a Double Blind Study, Journal of Bioelectr, 6(2), 1987, p. 181–188.

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