

Electromagnetic field treatment effective for osteoarthritis pain

Clinical question	Is electromagnetic field treatment (EFT) effective for the treatment of osteoarthritis (OA)?
Bottom line	EFT had a moderate benefit for patients' pain relief. There is inconclusive evidence that EFT improved physical function, quality of life or radiographic joint structure. No serious adverse effects of EFT were reported. The pulsed EFT trials lasted approximately 4 to 6 weeks, with treatment duration ranging from 27 to 60 hours. All of the studies' participants had OA of one or both knees, or cervical OA, diagnosed by clinical symptoms and radiographic evidence, and the OA was painful despite medical treatment.
Caveat	The quality of the evidence of all included trials was moderate or low. The protocols for pulsed electrical stimulation or pulsed EFT device setting and application varied widely between studies, as did outcome measures.
Context	EFT is currently used by physiotherapists. It is thought it may promote growth and repair of bone and cartilage based on principles of physics, including Wolff's Law, the piezoelectric effect and the concept of streaming potentials
Cochrane Systematic Review	Li S et al. Electromagnetic fields for treating osteoarthritis. Cochrane Reviews, 2013, Issue 12. Art. No.: CD003523.DOI: 10.1002/14651858. CD003523.pub2. This review contains 9 studies involving 636 participants.
Pearls No. 445, October 2014, written by Brian R McAvoy	

[References]

The PEARLS can be used free of charge for research or teaching. No commercial use is allowed.

View PEARLS online at:

www.cochraneprimarycare.org •

PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.