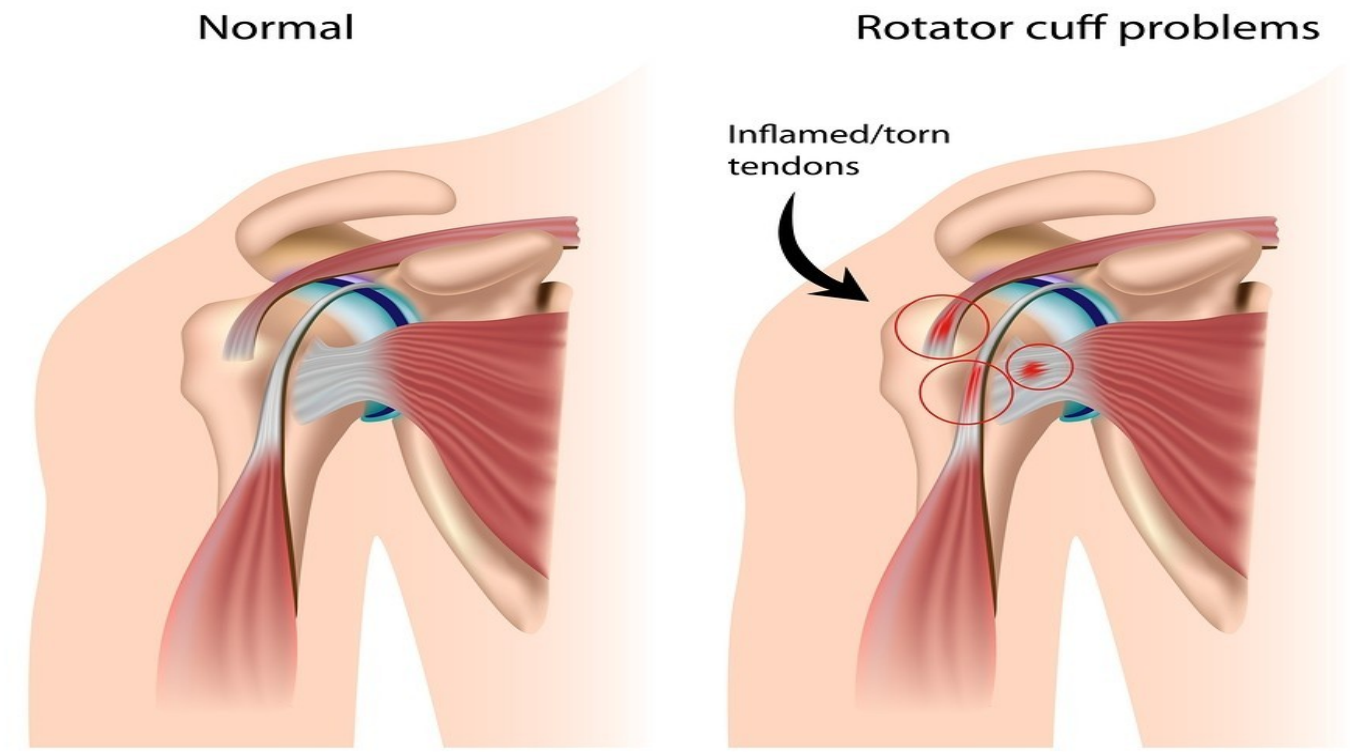
Medical PEMF Studies

RANGE OF MOTION

Pulsed electromagnetic fields after rotator cuff repair: a randomized, controlled study.



1. Orthopedics. 2015 Mar;38(3):e223-8. doi: 10.3928/01477447-20150305-61.

Osti L, Buono AD, Maffulli N.

The current study tested the hypothesis that the use of pulsed electromagnetic fields after rotator cuff repair is effective in the short term as an adjuvant treatment to reduce local inflammation, postoperative joint swelling, and recovery time, as well as to induce pain relief. Sixty-six patients who underwent shoulder arthroscopy for repair of small to medium rotator cuff tears were randomly divided into 2 groups with a block randomization procedure. Thirty-two patients underwent arthroscopic rotator cuff repair and application of pulsed electromagnetic fields postoperatively; 34 patients underwent rotator cuff repair and placebo treatment (placebo group). All patients had the same postoperative rehabilitation protocol. At 3 months from the index procedure, visual analog scale, range of motion, and University of California at Los Angeles and Constant

scores were significantly better in the pulsed electromagnetic fields group than in the placebo group (P<.05). Three patients in the pulsed electromagnetic fields group and 7 patients in the placebo group had mild to moderate capsulitis (P=.2). Severe capsulitis occurred in 1 patient in the pulsed electromagnetic fields group and 2 patients in the placebo group (P=.6). At the last follow-up (minimum, 2 years), clinical and functional outcomes were further improved in both groups, with no significant intergroup differences. Application of pulsed electromagnetic fields after rotator cuff repair is safe and reduces postoperative pain, analgesic use, and stiffness in the short term. At 2 years, no difference was seen in outcomes in patients who did or did not undergo treatment with pulsed electromagnetic fields.

PMID: 25760511 [PubMed - indexed for MEDLINE]