

Magnetic mattress pad use in patients with fibromyalgia: a randomized double-blind pilot study

Article type: Research Article

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Abstract: Objective: To determine if the chronic pain and sleep disturbances experienced by patients with fibromyalgia can be improved by sleeping on a magnetic mattress pad. Design: A double-blind randomized controlled trial. Setting: Patients' homes and the private practice office of the principal investigator. Patients: Thirty-five female subjects diagnosed with fibromyalgia syndrome were recruited. Thirty met inclusion/exclusion criteria and entered the study. Twenty-five completed it. One was lost to follow-up. Three were withdrawn for protocol violations and one because of an intercurrent hospitalization. Intervention: Sleeping on an experimental (magnetized at a magnet surface field strength of 1100 ± 50 Gauss and delivering 200–600 Gauss to the skin surface or a sham (non-magnetized) mattress pad over a 16 week period. Main Outcome Measures: Visual Analog Scales (VAS) for global wellbeing, pain, sleep, fatigue and tiredness on awakening; Total Myalgic Score; Pain Distribution Drawings; and a modified Fibromyalgia Impact Questionnaire. Results: Subjects sleeping on the experimental mattress pad experienced a significant decrease in pain ($p < .05$), fatigue ($p < .006$), total myalgic score ($p < .03$), and pain distribution drawing ($p < .02$). Additionally, these subjects showed significant improvement in reported sleep ($p < .01$) and physical functioning as evidenced from the modified Fibromyalgia Impact Questionnaire ($p < .04$). Subjects sleeping on the sham mattress pad experienced no significant change in these same outcome measures. Subjects in both the control and experimental groups showed improvement in tiredness on waking, demonstrating a placebo effect in this parameter. Neither group showed any effect on global wellbeing. Conclusions: Sleeping on a magnetic mattress pad, with a magnet surface field strength of 1100 ± 50 Gauss, delivering 200–600 Gauss at the skin surface provides statistically significant and clinically relevant pain relief and sleep improvement in subjects with fibromyalgia. No adverse reactions were noted during the 16-week trial period.

DOI: 10.3233/BMR-1999-13104

Journal: [Journal of Back and Musculoskeletal Rehabilitation](https://content.iospress.com:443/journals/journal-of-back-and-musculoskeletal-rehabilitation) (https://content.iospress.com:443/journals/journal-of-back-and-musculoskeletal-rehabilitation), vol. 13, no. 1, pp. 19-31, 1999

Published: 1 July 1999

Price: EUR 27.50