# Medical PEMF Studies



## D E P R E S S I O N

## Combining high and low frequencies in rTMS antidepressive treatment: Preliminary results.

1. Hum Psychopharmacol. 2002 Oct;17(7):353-6.

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The antidepressive potency of repetitive transcranial magnetic stimulation (rTMS) seems to depend on variables such as the stimulation placements, different

frequencies, stimulus intensities, coil shape and interstimulus intervals. The aim of this pilot study was to investigate the augmentation properties of rTMS combining low and high frequencies. Thirty six depressed medicated in-patients were recruited and assigned to three different rTMS treatment modalities as an add-on strategy (each n = 12). In group 1 a stimulus intensity of 110% of the motor threshold (MT) was used with a frequency of 10 Hz over the left dorsolatero prefrontal cortex (DLPC). The right DLPC was stimulated in the same session with 110% MT at 1 Hz. In group 2 the patients were stimulated only over the left DLPC with alternating trains of 110% MT at 10 Hz and trains of 110% MT at 1 Hz in the same session. In group 3 the high frequency stimulation over the left DLPC was performed as an internal control group. None of the treatment modalities was superior but different side effects were observed. These preliminary findings suggest that rTMS, at varying frequencies and stimulation placements, evokes different psychoactive effects of clinical relevance.



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