



© NeuRA

POST-TRAUMATIC STRESS DISORDER Factsheet

August 2021

What is transcranial magnetic stimulation?

Repetitive transcranial magnetic stimulation (rTMS) is a non-invasive method used to stimulate nerve cells in superficial layers of the brain. Control comparisons include 'sham' rTMS, which may involve tilting the stimulation coil against the scalp by 45 or 90 degrees, thus reducing the degree of brain stimulation, or use of a "placebo" coil of identical appearance. These placebo methods usually involve a 'click' noise but no magnetic field and no twitching sensation on the scalp. Comparison groups can also receive active rTMS applied to other brain regions.

What is the evidence for the effectiveness of rTMS for people with PTSD?

Moderate quality evidence found large improvements in PTSD and anxiety symptoms following rTMS compared to sham rTMS. This analysis included studies that mostly stimulated the right dorsolateral prefrontal cortex and used high frequency stimulation (>5 Hz) rather than low frequency stimulation (1 Hz). Deleting the low frequency stimulation studies resulted in improvements in PTSD symptoms only. There were no significant differences between active and sham groups for depression symptoms using the Hamilton Depression Scale (HAMD) or for overall symptoms using clinician assessment.

For more information see the technical table

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate



NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about PTSD and its treatment with your doctor or other health care provider.