

Clinical TMS Society's Statement on Level of Evidence for EEG-Informed TMS treatments

Effective: May 2025

Due for Review: May 2026

The mission statement of the Clinical Transcranial Magnetic Society is to optimize clinical practice, support research, and increase access to high-quality, evidence-based Transcranial Magnetic Stimulation (TMS).

CTMSS seeks to clarify the level of evidence required to make claims of efficacy. Claims based on pre-clinical data (including animal data, in-vitro, computational, modelling data etc.), theoretical papers on the possible mechanisms of a treatment, other non-published, non-peer reviewed reports, retrospective chart reviews, and preliminary open-label data do not meet the threshold to recommend as a clinical treatment. Our Society does not endorse advertising approaches for clinical indications that do not have sufficient evidence of efficacy.

In support of helping providers and patients choose evidence-based care, the CTMSS wants to warn about advertised indications for EEG-informed TMS for Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, Insomnia, Brain Injury, Post-Traumatic Stress Disorder, and Enhancement of cognitive performance.

While there is significant potential for clinical efficacy of EEG-informed treatments to be established in the future, the current level of evidence does not meet the threshold to recommend the clinical application of EEG-informed TMS.