

# McLean Hospital Launches Targeted Accelerated TMS Program

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McLean Hospital has launched a novel accelerated transcranial magnetic stimulation (TMS) program utilizing personalized targeting based on brain connectivity to treat depression. Currently, TMS treatments are provided daily for 6- to 8-weeks. The new approach, which began at McLean in mid-January 2024, condenses the treatment to one week—10 daily treatments for five days.

“This new technology of accelerated TMS will uniquely position our clinicians to help relieve depression safely, effectively, and efficiently for those suffering from treatment-resistant depression. The science has shown this novel treatment can provide patients and families a rapid and less disruptive option than conventional TMS,” said Joshua C. Brown, MD, PhD, medical director of TMS at McLean.

The new protocol is being launched initially in the Belmont TMS Service while renovations are being made to the hospital’s residential program for treatment-resistant depression. Paula Bolton, MS, CNP, program director of Neurotherapeutics reports, “Planning for the eventual move of this program to the Lincoln Residence will provide a comfortable environment for patients to receive this treatment. McLean will be the first to offer this unique treatment option in a residential setting.”

Positive results for this approach led to FDA clearance in September 2022. Targeted Accelerated TMS has shown a remission rate that is as high as 90%, even among patients who have not improved with daily TMS or ECT. In [one study](#), 100% of the 19 patients who reported some baseline suicidal thoughts showed full remission of these thoughts after the 5-day treatment, a benefit which lasted until the one-month follow-up, and up to 6 months in subsequent analysis.

McLean’s novel accelerated TMS protocol employs a concentrated, repetitive high-dose functional connectivity MRI guided theta-burst stimulation (ARHfcMRIgTBS). This protocol employs 1800 intermittent theta-burst pulses compared to the

standard 600 pulse protocol; it spaces sessions by 50 minutes to synergistically build on multiple session effects (rather than once daily), and precisely personalizes stimulation delivered to the cortical target based on functional connectivity with the anterior cingulate cortex (rather than based on the distance from the motor cortex over the scalp with a tape measure), which has been shown to correlate with clinical response.

This 5-day treatment program is designed to provide patients with treatment-resistant depression a care option that is very rapid compared to standard methods, and is notably less disruptive to their lives, whether at work, school, or home. The program is self-pay for its initial launch.

For more information about this or other forms of TMS available at McLean, please call 617-855-2360.

TMS Referral forms can be found on the [McLean TMS program website](#) or downloaded directly [here](#). Please indicate Accelerated TMS referral on the form.



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