

# TMS TRENDS

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## TMS HISTORY

Anthony Barker and colleagues at the University of Sheffield, England, began work using pulsed magnetic fields in the early 1980s. By stimulating different points of the brain cortex and recording responses such as muscle twitches in different parts of the body, Barker was able to create maps of the motor cortex and other functional brain areas.

Early experiments with TMS often used single impulses of magnetic energy rather than the rapidly pulsed TMS that is now used therapeutically.

Neuronetics, the Malvern, PA based manufacturer of the NeuroStar TMS Therapy system is one of several manufacturers of TMS devices available worldwide. It is the only device in the US however, that is FDA-approved for treatment-resistant depression.

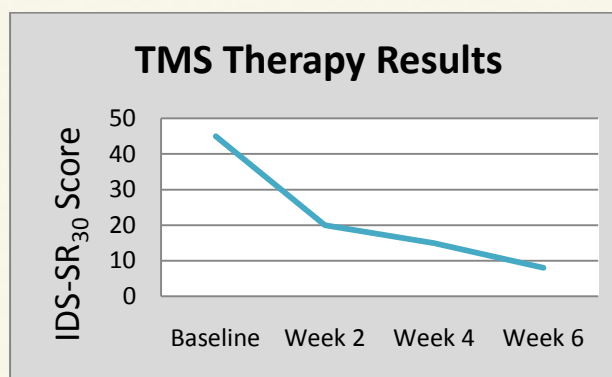
NeuroStar TMS Therapy has been demonstrated to be safe and tolerable, with no side effects such as weight gain, sexual problems, drowsiness or dry mouth. In the clinical trials there were no negative effects on memory or the ability to concentrate.

## CASE STUDY

Our most recent patient to complete TMS Therapy, L.K., is a 26-year-old Caucasian female who presented with significant depressive and anxious symptoms. In prior bouts of depression, L.K. had received only partial relief from traditional anti-depressant treatment and therapy, but recently began to experience worsening of symptoms, especially much greater levels of anxiety.

## BREAKING NEWS !

CNN recognizes NeuroStar TMS therapy as one of the **“Top 10 Health Innovations of 2009.”**



*Figure 1. IDS-SR<sub>30</sub> scores from case study patient during 6-week TMS Therapy*

At baseline, i.e. prior to beginning TMS Therapy, L.K. scored a 45 on the Inventory of Depressive Symptomatology (IDS-SR<sub>30</sub>), indicating a severe level of depression. After her first two weeks of TMS Therapy, L.K.'s score dropped to 20, followed by a score 15 at 4 weeks into treatment. Upon completion of 6 weeks of TMS Therapy, L.K.'s scored an 8. (See figure 1.) A score less than 13 indicates no clinical depression.

Subjectively, L.K. and her family reported being better able to manage her anxiety, and that she had regained her motivation for and enjoyment in everyday life. This positive response added only adds to our excitement and confidence in TMS.