
NONINVASIVE BRAIN STIMULATION PROGRAM

TRANSCRANIAL MAGNETIC STIMULATION

Transcranial magnetic stimulation (TMS), also known as repetitive transcranial magnetic stimulation (rTMS), is a noninvasive form of brain stimulation in which a changing magnetic field is used to cause electric current at a specific area of the brain through electromagnetic induction. This has demonstrated to activate brain cells and improve different neurological disorders. This technique is frequently used when other treatments have not been effective.



WHEN CAN TMS HELP?

The therapeutic value of brain stimulation is recognized by a range of medical fields. Our program uses TMS to help improve various brain functions in patients with conditions that include:

- Stroke
- Traumatic brain injury
- Parkinson's disease
- Chronic neuropathic pain
- Language and communication disorders (aphasia)
- Uncontrolled muscle movement (spasticity)

HOW DOES TMS WORK?

Used worldwide, noninvasive brain stimulation is safe, painless, and causes very few side effects. The goals of TMS include maximizing quality of life; minimizing chronic neuropathic pain; and lessening the impact that neurologic conditions may have on functional areas such as cognition, movement, uncontrolled muscle movement (spasticity), and speaking.

TMS can be performed in one of two ways. The procedure can either stimulate a damaged area of the brain with the goal of restoring its function, or it can compensate for the damaged area's loss of function by stimulating another area.

Our team understands every patient is different, so our specialists rely on information gathered during your evaluation to determine how TMS may be used to help you. For the purposes of rehabilitation, our team may choose the best protocol and stimulation parameters.

Depending on your condition, these brain stimulation techniques often work best when they are coordinated with rehabilitation therapy. A TMS procedure lasts approximately 20-30 minutes and frequency and total number of cases depend on every patient. We typically pair this treatment with occupational therapy, physical therapy, or speech-language therapy. A common treatment regimen provides high-intensity rehabilitation training over multiple weeks in combination with other rehabilitation techniques.



HOW TO PARTICIPATE IN OUR TMS PROGRAM?

If you are interested in brain stimulation, you should get in touch with our center and one of our neurologist will evaluate your pathology and if TMS could be a good option for you.

WHO CANNOT PARTICIPATE IN THIS PROGRAM?

Patients affected by the following conditions or circumstances may not be candidates for TMS:

- Metallic objects in or near the head
- Implanted stimulator devices in or near the head
- Worsening depression or suicidality
- Medical devices containing electronics or ferromagnetic material
- Implants controlled by physiologic signals
- History (or family history) of seizure or epilepsy
- History of severe headaches or unexplained seizures
- Concurrent medication use such as tricyclic antidepressants, antipsychotic medications, or other drugs known to make you more prone to seizures
- Pregnancy or nursing