

TMS

Transcranial Magnetic Stimulation



Transcranial Magnetic Stimulation (TMS) is a medication-free way to treat depression and obsessive compulsive disorder (OCD). It uses magnetic energy to activate the brain. TMS is more powerful than most medications for depression and is better tolerated than most medications. The full treatment involves five 5-20-minute sessions per week over 6 weeks.

During each session, a round magnet is placed over the head and directed so that it only affects the mood center. People are fully conscious during the treatment and hear a clicking sound as the magnet is activated.

The magnet activates the neurons, just as lifting a weight activates your muscles. Over time, the brain strengthens and grows new connections, much as daily exercise strengthens muscle

TMS has been used since the 1990's for difficult-to-treat depressions. It is covered by most insurers.

Side effects

These are usually mild and improve with time. There can be headaches, scalp discomfort, lightheadedness, and tingling, tension, or twitching of facial muscles.

Ear plugs are recommended to prevent hearing loss, as the magnet makes loud clicks. A mouth guard can reduce jaw tension.

There is one serious risk with TMS: Seizures. These are extremely rare, though people with epilepsy may be at risk. Unlike electroconvulsive therapy (ECT), TMS does not work by inducing seizures.

Other benefits

TMS improves anxiety and concentration. It also works when people have depression with vascular disease, a common problem in older age where antidepressants usually fall short.

Maximizing the benefits

TMS works better when you get into a more focused, calm frame of mind before the treatment. This isn't easy in depression, but consider walking in nature, reading a spiritual text, listening to favorite music, or playing a game or puzzles.

—*Chris Aiken, MD, updated 6/25/2025*