



Transcranial Magnetic Stimulation Treatment Details

WHAT IS rTMS?

rTMS stands for “repetitive transcranial magnetic stimulation.” rTMS is a non-invasive FDA-cleared medical procedure for the treatment of depression in adults. rTMS is a brain stimulation technique that relies on the generation of brief magnetic fields using an insulated coil that is placed over the scalp. These magnetic fields are the same type and strength as those used in magnetic resonance imaging (MRI) machines. The magnetic pulses generate a weak electrical current in the brain that briefly activates neural circuits at the stimulation site. rTMS has been shown to be a safe and well-tolerated procedure that can be an effective treatment for adult patients with depression who have not benefited from antidepressant treatment.

PROCEDURE

rTMS therapy involves a series of treatments. You will be asked to remove any metal or magnetic sensitive objects (e.g., jewelry, keys, credit cards). Because rTMS produces a loud clicking sound with each pulse, you will also be recommended to wear earplugs for comfort and safety. rTMS does not require any anesthesia or sedation, so you will be awake and alert during the entire procedure. The insulated magnetic coil will be gently placed over the side or on top of your head. The TMS staff member will then adjust the TMS device by delivering a series of pulses until it gives just enough energy so that your hand twitches. The amount of energy required to make your hand twitch is called the “motor threshold.” Everyone has a different motor threshold, and the treatments are given at an energy level that is just above your individual motor threshold. During the procedure, you will hear a clicking sound and feel a tapping sensation on your scalp. Once your motor threshold is determined, the magnetic coil will be moved to the front side of your head, over a region of the brain that scientists think may be responsible for causing depression. You will receive the treatment as a series of “pulses,” with a “rest” period between each pulse series. Treatment sessions typically last 3 minutes. Trained staff will be monitoring you during the entire treatment. You may stop the procedure at any time.

NUMBER OF TREATMENTS

The exact number of treatments you receive cannot be predicted ahead of time. The number of treatments you receive will depend on your psychiatric condition, your response to treatment, and the medical judgment of your treatment provider. rTMS treatments are usually administered five times per week, but the frequency of your treatments may vary depending on your needs. Typically, patients who respond to rTMS experience results by the fourth to sixth week of treatment. However, some patients may experience results in less time while others may take longer. You may choose to end the treatments at any time.

RISKS

As with any medical treatment, rTMS carries a risk of side effects. However, rTMS is generally well-tolerated and only a small percentage of patients discontinue treatment because of side effects. During the treatment, you may experience tapping, facial twitching, or painful sensations at the treatment site while the magnetic coil is turned on. These types of sensations are reported by about one third of patients. You should inform staff if this occurs. The treatment staff may then adjust the stimulation settings or make changes to where the coil is placed in order to help make the procedure more comfortable for you. In addition, about half of patients treated with rTMS experience headaches that generally respond very well to over-the-counter pain medications. Because the TMS device produces a loud click with each pulse, you should wear earplugs during treatment to minimize the risk of hearing loss. There have been no reported cases of permanent hearing loss with properly functioning hearing protection. If you notice that your earplugs become loose or have fallen out, notify treatment staff immediately. As with all antidepressant treatments, there is a small risk for the emergence of mania with rTMS therapy. The most serious known risk of rTMS is the production of a seizure. Although there have been a few case reports of seizures with the use of TMS devices, this risk is extremely small. Nonetheless, let your provider know if you have a history of a seizure disorder, as it may influence your risk of developing a seizure with this procedure. Any signs or symptoms of worsening depression should be reported immediately. You may want to ask a family member or caregiver to monitor your symptoms to help you spot any signs of worsening depression. There are no known adverse cognitive (thinking and memory) effects associated with rTMS therapy.

PREGNANCY

The risks of exposure to TMS in pregnancy are unknown. If you are a woman of childbearing capacity, you may be asked to take a pregnancy test before starting treatment.

LONG-TERM ADVERSE EFFECTS

There are no known long-term adverse effects reported with the use of rTMS. However, as this is a relatively new treatment, there may be unforeseen risks in the long-term that are currently unknown.

**Sign below to confirm that you accept and understand the process of this treatment.
Bring this paper with you to your first session.**

Patient Signature: _____ Date: _____

Provider Signature: _____ Date: _____