



# SAIFEE HOSPITAL

under the auspices of Saiffee Hospital Trust Reg. No. E-5448 (Bom)

## Repetitive Transcranial Magnetic Stimulation

### Repetitive Transcranial Magnetic Stimulation

(rTMS) - is a FDA approved noninvasive method to cause depolarization or hyperpolarization in the neurons of the brain. TMS uses electromagnetic induction to induce weak electric currents using a rapidly changing magnetic field. It is a treatment tool for various neurological and psychiatric disorders including migraines, strokes, Parkinson's disease, dystonia, tinnitus and depression. Therapy is for 10 sessions given under the supervision of a neurologist or psychiatrist as the case may be.



### Why is rTMS used?

TMS is mainly used to treat severe depression. The most qualified candidates for rTMS are people with depression who haven't had success with other methods. People who aren't in good enough health for a procedure such as electroconvulsive therapy (ECT) might be better candidates for rTMS.

### How does rTMS work?

RTMS is a noninvasive procedure. Sessions of rTMS typically last anywhere from a half hour to an hour. During rTMS you will sit or recline while an electromagnetic coil is held near your head. The electromagnetic coil is placed against the forehead near the area of your brain that regulates mood. The coil then passes magnetic pulses to a targeted part of your brain. This induces an electrical current in specific nerve cells. It's thought that these electrical currents stimulate brain cells in a complex way that can reduce depression. The prefrontal cortex of the brain is often the region doctors choose to target for depression.



## What are the possible side effects and complications of rTMS?

The procedure is associated with mild to moderate side effects, including :

- Feelings of lightheadedness
- Temporary hearing problems, due to the sometimes loud magnet noise
- Mild headaches
- Tingling in the face, jaw, or scalp

## Who should avoid rTMS?

There are some people who can't get rTMS, even if they could benefit from it. The magnetic coil used in the treatment can be dangerous for anyone who has metal implanted somewhere in their head or neck.

Examples of people who shouldn't get rTMS include those with :

- Aneurysm clips or coils
- Bullet fragments or shrapnel near the head
- Cardiac pacemakers or implantable cardioverter defibrillators (ICD)
- Facial tattoos that have magnetic ink or ink that is sensitive to magnets
- Implanted stimulators
- Metal implants in the ears or eyes
- Stents in the neck or brain

A doctor will conduct a thorough examination and take a medical history before using the therapy.

## What is the duration of rTMS?

Doctors will create an individual prescription for a person when it comes to treatment. However, most people will go to treatment sessions that last anywhere from 30 to 60 minutes about five times a week. The treatment duration usually lasts between four and six weeks. This number of weeks could be shorter or longer depending on the individual's response.

For Details / Appointment Call :

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