



PSYCHIATRIC SERVICES

# Outpatient rTMS

Repetitive Transcranial Magnetic Stimulation

## What is rTMS?

Repetitive transcranial magnetic stimulation (rTMS) is a non-invasive technique that stimulates brain tissue to treat major depressive disorder and several other mental health conditions including obsessive-compulsive disorder and auditory hallucinations that occur with schizophrenia.

There is level A evidence for treatment of major depression, particularly in those who have not responded adequately to antidepressant medication.

rTMS does not cause systemic side effects. It can be used when patients experience adverse side effects from antidepressant medications such as nausea, weight gain, and sexual dysfunction.

rTMS is different from electroconvulsive therapy (ECT) - it is non-invasive and has fewer side effects. No anaesthetic is required, and no seizure is induced. Patients experience no memory loss or cognitive impairment after rTMS, and can return to daily activities immediately after treatment.

## How does it work?

An insulated electromagnetic coil rests on the patient's scalp, which induces a strong, narrowly focused magnetic field. The field is rapidly switched on and off to create a small, targeted current that stimulates neurons directly under the coil.

When treating depression, the coil is located over the Dorsolateral Prefrontal Cortex – a highly interconnected region of the frontal lobe which appears to be dysregulated in depression.

## Referrals

Referrals accepted from GP or Psychiatrist

Find our referral form online:

[www.mi-mindtrust.com.au/](http://www.mi-mindtrust.com.au/) under the 'Forms' tab  
or via email: [office@mi-mindtrust.com.au](mailto:office@mi-mindtrust.com.au)



## Medicare Funding

Medicare funds 35 initial treatments, and an additional 15 treatments after 4 months

## Medicare Criteria

- Depressive disorder diagnosis
- Trialled 2 different anti-depressant medications
- Tried psychotherapy

## Contraindications

- be 18 years of age or older
- no epilepsy
- no unstable neurological conditions
- no internal ferromagnetic metals
- no implanted devices  
e.g. cochlear implant or cardiac pacemaker

## Other conditions

rTMS is available without Medicare funding for OCD, PTSD, addiction, tinnitus, chronic pain and auditory hallucinations in schizophrenia.

Treatment for these conditions is self-funded. Contact us to discuss treatment options

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### What's involved?

An rTMS course consists of up to 35 treatments performed daily or twice daily for a 2-to-6-week period. Each treatment session lasts 30 minutes.

During the initial appointment, a consultant psychiatrist determines the correct magnetic field dose by stimulating the patient's motor cortex and finding the minimum amount of energy required to induce a twitch in their contralateral thumb. The patient's rTMS prescription will be a percentage value of this Resting Motor Threshold.

The treatment sessions are delivered by a trained clinician who remains with the patient during treatment. Patients are seated in a chair, are awake and alert, and can engage in other activities immediately after treatment.

### How long until mood improves?

For those that respond to rTMS treatment, depressive symptoms may begin to improve as early as 10 treatments into the course.

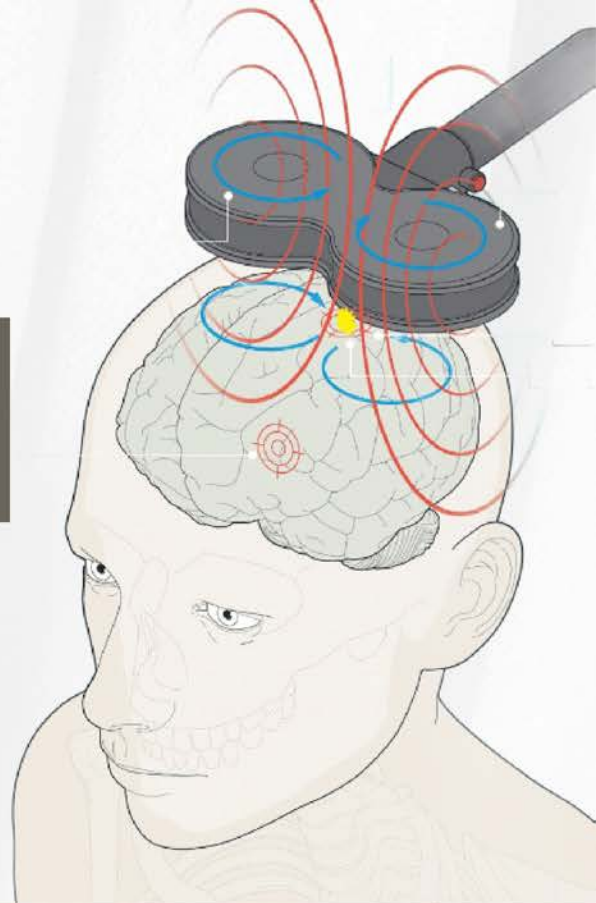
For some, improvement may be delayed until up to 4 weeks post treatment completion.

### Side effects

rTMS is generally well tolerated. However, as with all treatments, there are potential side effects. These include:

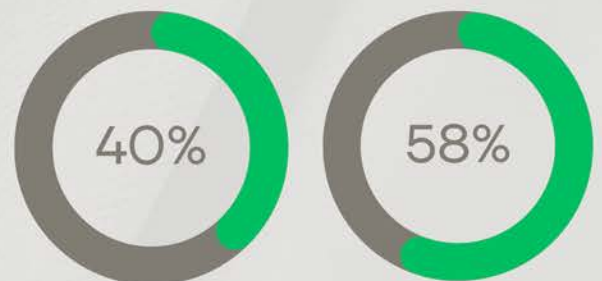
- eyebrow twitching
- tapping sensation and/or pain at the stimulation site
- headache/neck ache

Severe side effects such as seizure are rare. They occur in fewer than 1 in 30,000 people.



### rTMS efficacy

How successful is rTMS treatment for depression?



**Full remission**

**Partial response**

After a course of TMS treatments, approximately 40% of people with treatment resistant depression achieve full remission and 58% of people achieve a noticeable reduction in symptoms.

### Find out more

Contact us at Mi-Mind Centre  
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