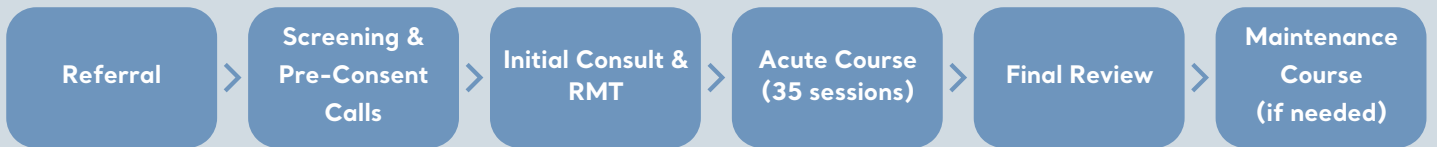


## Repetitive Transcranial Magnetic Stimulation (rTMS) for Depression

### The 6 steps to TMS:



### What is TMS?

TMS stands for "Transcranial Magnetic Stimulation". TMS therapy has been extensively researched and is an approved treatment method for a range of psychiatric and neurological disorders, including Major Depressive Disorder. TMS is a focal brain stimulation treatment that involves passing small electromagnetic currents through certain areas of the brain. Different areas of the brain can be targeted by holding a specially designed coil near the patient's scalp. The energy applied acts to stimulate nerve cells in that particular brain region.

### How does TMS work for Depression?

TMS works by delivering MRI-strength magnetic pulses to safely stimulate a particular region of the brain. For depression, the brain area called the Dorsolateral Prefrontal Cortex (DLPFC) is targeted. The DLPFC is one area that has a function of regulating mood. For those that struggle with depression, this area has low activity. TMS treatments are thought to help reactivate this brain area and normalise its activity. Once this area has increased activity, it begins to communicate with deeper brain regions also responsible for depression.

### Is TMS therapy like ECT?

No, TMS is not like Electroconvulsive Therapy (ECT). TMS is performed in our clinic and does not require anesthesia or any sedation. Patients can return to normal activities immediately afterward. Unlike ECT, TMS also does not produce any issues with memory or cognition.

### How do TMS and antidepressants differ?

TMS is a focused treatment that has no systemic effects because it does not travel in the bloodstream. For medications to work they need to enter the bloodstream. Since TMS is non-systemic, it does not have the side effects commonly seen with medications, such as weight changes, dry mouth, fatigue, sexual dysfunctions, or drug interactions (among others).

\* It is important to note that medications have helped many with depression. For patients who remain on medications during TMS Therapy, the TMS, medications, and psychotherapy can all work together toward the goal of remission.

### Do I need a referral for TMS?

Yes, patients will need a referral in order to get TMS. This can be from a GP, psychiatrist, or other allied health medical practitioner. Referral forms can be found on the Modalis website.

### How long does TMS Therapy take?

Each treatment session takes approximately 15-20 minutes, depending on the specific treatment protocol. Generally, the initial course of treatment will involve 35 treatment sessions total. Sessions are usually delivered once-daily from Monday to Friday, but the course of treatment will be individualised and modified as clinically indicated. The specific treatment protocols will be discussed and determined during the Initial Consult.

### How long will the benefit last for Depression?

As depression is a very complex condition, the benefits from TMS vary between patients. An improvement in mood is just one measure of success. Other areas include improvement in function, psychological and emotional wellbeing, improvement to sleep and quality of life, and reduction in medication requirements.

TMS treatment is known to have long-lasting effects, however the duration of these benefits can also vary between patients, due to personal biological and environmental factors. Following TMS, some patients have maintained wellness on medications alone for over two years. Others may benefit from occasional "top up" (maintenance) sessions to maintain the effects.

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### How much does each session cost?

Medicare currently provides partial rebates for eligible patients who meet the following criteria:

- Are receiving TMS for depression
- Aged 18+ years of age
- Have never had TMS before
- Have tried at least 2 antidepressants in the past without any significant benefits

The cost for TMS therapy is \$240 for the Initial Consult appointment and \$185 per treatment session. Medicare currently rebates \$173.50 for the Initial Consultation & RMT, and \$148.90 per treatment session for eligible patients who have not yet reached their Medicare Safety Net Threshold. For those who have reached their Safety Net Threshold, these rebates may be higher.

The rebates are available to eligible patients for one acute course (up to 35 sessions) and one maintenance course (up to 15 sessions; available after 4 months from the acute course) of TMS.

If you are a Department of Veteran Affairs (DVA) patient or covered by a third party insurance claim, you may be able to have your full treatment costs covered. Modalis also considers patients with financial difficulties and can assist with payment plans or personalised fees on a case-by-case basis for those experiencing financial hardship.

### Can TMS be used on multiple comorbidities?

There are a number of established protocols of TMS for a range of conditions, which are each tailored to the condition(s) and symptoms that we are aiming to treat. For patients who have multiple comorbid conditions, a personalised treatment plan can be determined to target one or more conditions. The duration of treatment may be different in these cases, depending on the condition(s) being treated.

The treatment plan will be discussed during the Initial Consult appointment and the TMS Specialist will choose the most appropriate treatment protocol(s) during this appointment depending on the pattern of symptoms and the specific clinical indications for TMS. The treatment plan will be assessed on an ongoing basis according to how the patient is responding and the treatment goals.

Please note: Each specific condition to be treated must be provided on the referral form. Only conditions that are indicated on the patient's referral will be considered during the formation of the treatment plan.

### Which protocols are used for Depression?

Modalis follows well researched and published protocols for treating conditions with TMS. For depression, there are a number of established protocols that stimulate either the left or right Dorsolateral Prefrontal Cortex (DLPFC). These protocols may involve delivering pulses of stimulation at either high (10 Hz) or low (1 Hz) frequencies. Another protocol delivers pulses at a more complex frequency - this is known as "Theta Burst Stimulation". The TMS Specialist will choose the most appropriate treatment protocol during the Initial Consult & RMT appointment depending on the pattern of symptoms and the specific clinical indications for TMS.

### Is TMS an approved treatment?

TMS was approved as a treatment for medication-resistant depression by the Therapeutic Goods Administration (TGA) in 2007 and recognised by the RANZCP in 2013. Currently, TMS for other conditions is an off-label treatment. For conditions such as chronic pain and tinnitus, this is similar to many of the current medication options that are often used.

### Can TMS help beyond Depression?

Scientific research on TMS is currently being conducted around the world for its possible use for other mental health and physical conditions. This includes indications such as schizophrenia, hallucinations, the treatment of pain (including fibromyalgia and neuropathic pain), tinnitus, Alzheimer's disease, Parkinson's disease, Smoking addiction, ADHD, Multiple Sclerosis, Stroke, and more. At Modalis, we provide treatment for depression, chronic pain, OCD, PTSD, tinnitus and more but the list of possible indications will increase in the near future as the evidence-based protocols become available. Modalis is striving to provide to its patients access to the most advanced and validated treatment protocols.

### I have more questions, how do I get in contact?

If you have any further queries, please do not hesitate to contact one of our friendly reception staff by calling (08) 6166 3733 or emailing us at [tms@modalis.com.au](mailto:tms@modalis.com.au).

You can also book a free information call with one of our TMS Clinicians by filling out our form on our website: [www.modalis.com.au/book-a-consultation](http://www.modalis.com.au/book-a-consultation)