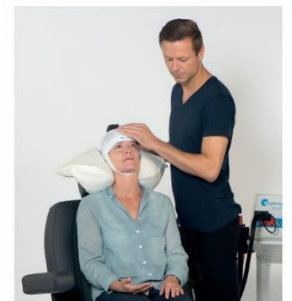


# rTMS Therapy

-Depression treatment

## *Patient Handbook*



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## rTMS Therapy for Depression Treatment

This patient handbook does not take the place of consultation and advice from your psychiatrist or physician. This handbook is intended to be used as a supplement to the consultation and advice from your Medical provider.

For more information on what to expect from the treatment, including what type of side effects, you may experience (e.g. headache, or worsening depression) you should talk to your physician right away. rTMS Therapy is a medical procedure and any side effects experienced during or after receiving the therapy should be reported to your physician.

### For depression, rTMS works by:

- Stimulating areas of your brain involved in controlling emotions.
- These areas are thought to be less active in people with depression.
- The treatment directs a series of magnetic pulses through your scalp and skull to the targeted area of the brain.
- With repeated treatments, the magnetic pulses change the activity of the brain cells in an attempt to returning the brain to normal functioning.

## Introduction to rTMS Therapy

Repetitive Transcranial Magnetic Stimulation Therapy (rTMS) is approved by Health Canada. The treatment is delivered as powerful magnetic pulses and the method has been shown to be both safe and effective for the treatment of **Major Depressive Disorder in adult patients** who have failed to achieve satisfactory improvement from two prior antidepressant medications, at or above the minimal effective dose and duration in the current episode.

Your doctor will use medication dosing records and depression scores among other measures to determine whether or not you are a candidate for rTMS Therapy. For further information consult with your physician.

The rTMS Therapy is not an appropriate treatment for all patients with depression. To learn if you might benefit from this treatment please talk to your doctor.

rTMS Therapy takes place in the rTMS clinic under the care and supervision of the rTMS Team and is non-invasive. The treatment does not involve surgery and nothing is circulated in your bloodstream during treatment. Patients are typically not sedated, but are awake during the treatment.

A typical course of treatment consists of 5 sessions per week over a 4-6weeks period. Each treatment session lasts approximately 3 minutes, depending on the protocol your physician uses. During the course of treatment, you will be assessed by the psychiatrist in the rTMS clinic at the mid-point of your treatment and again at the end. **A report summary will be then sent back to your health care provider.**

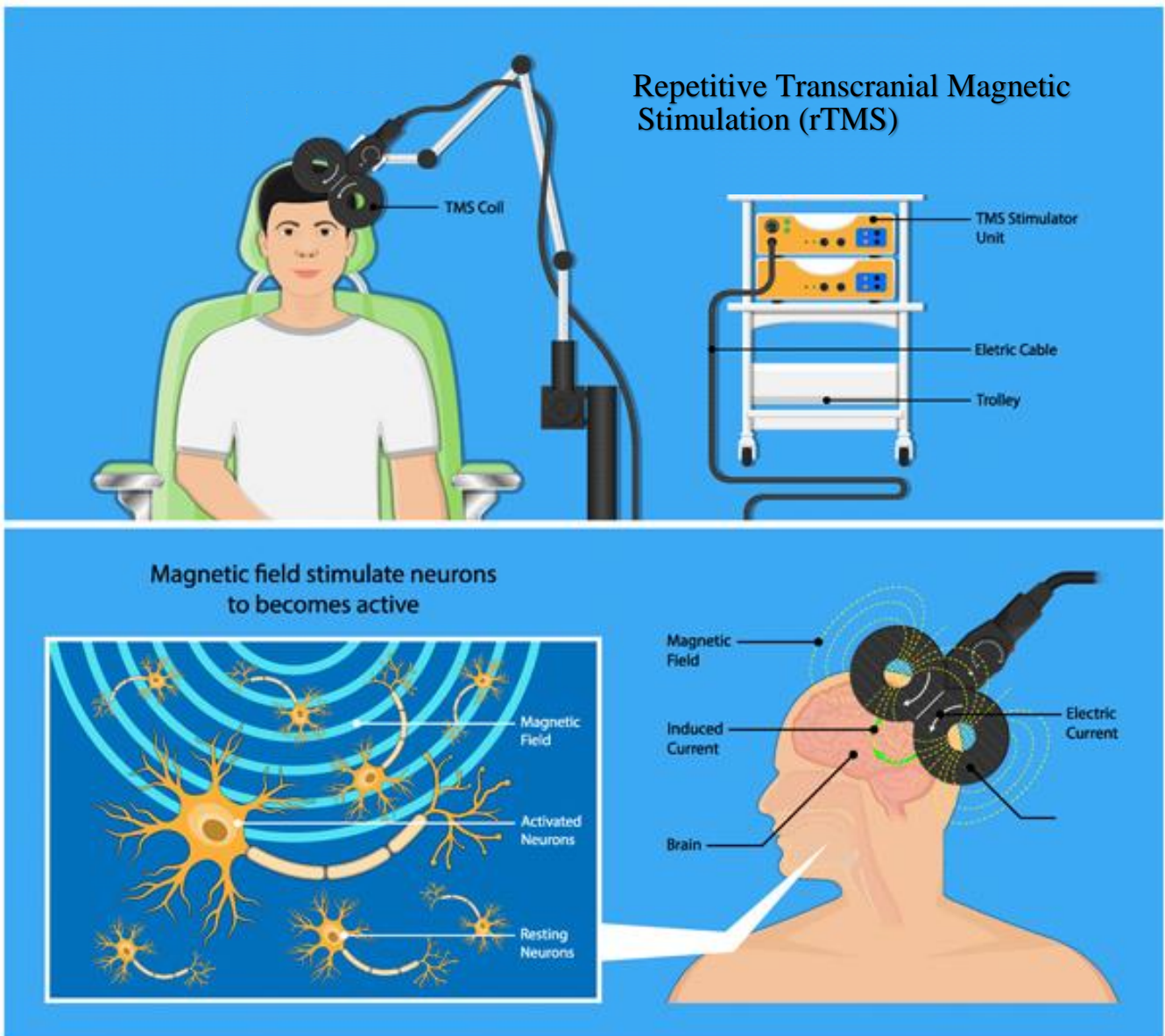
Relapse may occur. You should discuss long-term treatment planning with your doctor.

## How does the rTMS Therapy System work?

During the treatment, the patient is sitting in a treatment chair in a relaxed position. The coil part of the system will be positioned on the left front side of the head, over the part of the brain called the Dorsolateral Prefrontal Cortex (DLPFC).

Short bursts of electricity are passed through the treatment coil, which in turn generate magnetic fields. The magnetic fields have the ability to pass unhindered through the scalp and create small electric currents in the targeted area of the brain.

These electric currents depolarize or activate nerve cells in the region of stimulation. Clinical studies have demonstrated that repetitive magnetic stimulation of the DLPFC is safe and effective in treating patients with depression.



## Who are Good Candidates for rTMS Therapy?

Treatment of Major Depressive Disorder in adult patients who have failed to achieve satisfactory improvement from two prior antidepressant medications, at or above the minimal effective dose and duration in the current episode.

- Current literature indicates that approximately 50% of all treated patients who meet the above criteria respond to the treatment by bettering their Hamilton depression rating score by 50% or more.
- Approximately 35% of all treated patients are so called remitters, bettering their Hamilton depression rating score to a score of 7 or less, meaning that they are depression free.

## When Should rTMS Therapy Not Be Used?

The rTMS Therapy system creates a magnetic field that could cause metal objects near the stimulation coil to move or get hot.

Patients with non-removable magnetic-sensitive metals or metallic devices implanted in their head or in body parts near the stimulation coil could experience adverse effects from the treatment and should not receive therapy with the rTMS Therapy system.

The rTMS Therapy system should not be used in patients who have an implanted device that may not properly function in the presence of the system, even if the device is located outside the recommended distance of 1 meter.

### **Implanted Electronic Devices and or Conductive Objects in or near the head**

- Patients who have an implanted device that is activated or controlled in any way by physiological signals (examples: deep brain stimulators, cochlear implants, and vagus nerve stimulators). Contraindicated use could result in serious injury or death.

### **Non-Removable Metallic Objects near the coil**

- Patients who have conductive, ferromagnetic or other magnetic-sensitive metals implanted in their head or within 30 cm of the treatment coil (examples: cochlear implants, implanted electrodes/stimulators, aneurysm clips or coils, stents and bullet fragments). Failure to follow this restriction could result in serious injury or death.

NOTE: Standard amalgam dental fillings are not affected by the magnetic field and are acceptable in patients.

## Safety Information

Patients should discuss with their doctor any history of seizure and should inform their doctor of any medications that they are currently taking so that any possible risk of lowered seizure threshold can be assessed.

Patients with a history of seizure or with potentially lowered threshold for seizure should not receive rTMS therapy without having a comprehensive discussion with their doctor about the potential risks and benefits of receiving rTMS. Talk with your doctor for more information.

### Precautions

- Hearing protection (ear plugs) with a rating of 30 dB of noise reduction must be worn by both patient and operator during treatment as the system will generate loud click noises. Immediately report any loosening or detachment of an earplug during treatment.
- Following acute treatment with rTMS Therapy, patients will need to be monitored and may need to continue medications.
- Longer term effects of exposure to the rTMS Therapy System magnetic field are not known.
- Clinical judgment should be used to determine whether or not treatment should continue for a patient with impaired ability to sense heat/pain. Patients who may be at increased risk of thermal injury include patients with:
  - Diabetes
  - History of a stroke
  - Under the influence of alcohol
  - Current use of any sleep medication

### Adverse effects and complications

- There is a risk of seizure with the use of Repetitive Transcranial Magnetic Stimulation. You should discuss with your doctor if you have had a seizure or if you have a medical condition that you have been told may put you at increased risk of having a seizure.
- There is a risk of syncope with the use of Repetitive Transcranial Magnetic Stimulation. You should discuss with your doctor if you have had syncope or if you experience any signs or symptoms of syncope, such as lightheadedness, dizziness, a need to lie down, nausea or feeling warm during treatment; immediately report appearances of any signs and symptoms to the operator.
- Minor scalp pain, headache and burning sensation in the area of stimulation are the most commonly reported side effects during and after treatment.
- Long term effects of exposure to magnetic field are not known. Current evidence indicates that exposure to the type of magnetic fields produced by the coil does not present any significant risk of acute or long-term adverse effects.
- The treatment may not be effective or appropriate for all patients and additional side effects may occur.
- Worsening of symptoms and suicidal tendencies has been noted in rare occasions. Patients should immediately report any such thoughts or feelings to their doctor during or after any treatment with the rTMS Therapy system.