

# Patient information

- TMS for the treatment of major depressive disorder

- What is TMS?
- Frequently asked questions
- What happens during TMS therapy?
- Pain Therapy System



# What is TMS?



TMS is short for transcranial magnetic stimulation.

TMS is a non-invasive treatment where magnetic pulses are delivered to stimulate nerve cells in the part of the brain controlling the mood. This area is often underactive in patients with depression.

Stimulating this particular part of the brain has proven to produce an antidepressant effect on people suffering from depression.

TMS does not require anesthesia or surgery. TMS is not to be confused with ECT (Electro Convulsive Therapy) and it does not affect cognitive function such as memory.



## Depression

Depression affects 300 million people worldwide and is the leading cause of disability.

The most common symptoms of depression are feelings of emptiness, sadness or irritable mood in combination with both cognitive and somatic changes. This can significantly affect the individual's capacity to function.

# Frequently asked questions about TMS

## How does TMS work?

TMS activates the brain nerve cells by repeatedly applying magnetic pulses. TMS is therefore also known as rTMS (repetitive trans-cranial magnetic stimulation) because more than one magnetic pulse is delivered to the brain during a treatment session.

TMS therapy consists of repeated cycles of TMS followed by rest periods. Diagnosis and initial session is performed by a qualified licensed provider. The remaining treatment sessions will typically be conducted by trained staff under the supervision of the licensed provider.

## Who can get TMS therapy?

TMS is a treatment option for adult patients suffering from major depressive disorder who have failed to receive satisfactory improvement from antidepressant medication.

TMS therapy is available by prescription only. Your provider will use medication dosing records and depression scores among other measures to determine whether or not you are a candidate for TMS therapy.



The magnetic coil which delivers the TMS treatment is typically positioned on the left front side of the head. This is the part of the brain which connects all the different brain areas involved in depression.

# What happens during TMS therapy?

The patient wears a **cotton cap** marked with the exact treatment spot.

A TMS trained staff or provider places the **TMS coil** on the patient's head as marked on the cap, and starts the TMS treatment.

A **pillow** is used around the patient's head. The pillow becomes rigid once the air is evacuated. This helps ensure that the patient's head is stable and that the patient is comfortable.

The patient is awake during **treatment**. One session lasts from 3-37 minutes. A full treatment course consists of one session per day, with 20-30 sessions in total.

The patient is seated in a reclinable **treatment chair** with head- and footrest.



## How long does the treatment take?

Depending on which treatment protocol your provider prescribes, one TMS therapy session can last from 3 minutes and up to 37 minutes. All protocols, however, will be applied with one treatment session per day, 5 times per week, over a period of 4-6 weeks.

## What does TMS feel like?

You sit in a chair in a relaxed position in your provider's office/clinic. When the magnetic pulses are delivered, you will hear a clicking sound and feel a tapping sensation on your scalp. To reduce the sound, you will use ear plugs during treatment.

## Are there any side effects to TMS therapy?

TMS may cause headache or nausea but you should be able to resume your daily activities right after treatment. TMS therapy is a medical procedure and any side effects experienced during or after receiving the therapy should be reported to your provider.

## TMS for depression – in short

- TMS: Transcranial Magnetic Stimulation
- Series of pulsed magnetic stimuli to the brain
- Most common side effects from TMS therapy are headache and nausea
- Does not affect cognitive function
- You will typically be able to resume daily activities right after treatment
- TMS may be used with or without antidepressants (determined by provider)
- TMS is not the same as ECT (Electro Convulsive Therapy)



# Pain therapy system

Magnetic Peripheral Nerve Stimulation (mPNS) is an efficient and painless way of treating chronic pain without the use of drugs and surgery. This non-invasive treatment option has an average pain relief of up to 87%\*\*.

\*MAGNETIC PERIPHERAL NERVE STIMULATION

\*\*BEDDER M, PARKER L.: MAGNETIC PERIPHERAL NERVE STIMULATION (MPNS) FOR CHRONIC PAIN, 2023



**Non-invasive**  
painless treatment



**Up to 87%**  
pain relief\*\*



**13 minutes**  
average time



**No**  
drugs



**No**  
side effects



**3-4**  
sessions first 2 months  
and maintenance every  
6 to 8 weeks

## Setting you apart

MagVenture Pain Therapy is an FDA cleared magnetic stimulator system that provides brief and focused magnetic pulses to non-invasively stimulate peripheral nerves and **provide relief of chronic intractable, post-traumatic and post-surgical pain** for patients 18 years or older.



## Unlocking the power of Magnetic Peripheral Nerve Stimulation (mPNS)

MagVenture's versatile coil selection accommodates for different anatomical regions of the body offering a range of options for the treatment of pain.



# Advantages

## Why choose MagVenture Pain Therapy

6 good reasons to choose MagVenture Pain Therapy and Magnetic Peripheral Nerve Stimulation (mPNS) as your future option of managing peripheral pain.

### FDA cleared



The MagVenture Pain Therapy system is intended to stimulate peripheral nerves for relief of chronic intractable, post-traumatic and post-surgical pain for patients 18 years or older. It is a relatively new technique in the US for pain relief in the clinical setting and thus not very widespread yet.

### Promising pain relief



Evidence shows Magnetic Peripheral Nerve Stimulation (mPNS) to have a promising average pain relief of up to 87%.\* Using magnetic pulses, MagVenture Pain Therapy engages sensory, pain, and motor fibers mechanistically to recondition the central nervous system by eliminating noxious pain signals to the brain, reducing chronic neuropathic pain for respondent patients.

\*Bedder M, Parker L.: Magnetic Peripheral Nerve Stimulation (mPNS) for Chronic Pain, 2023

### Reduction of opioids or other medications



mPNS represents another option for chronic neuropathic pain management that can minimize dependence on opioids and other medications with potentially adverse side effects by an average of 51%.\*

\*Bedder M, Parker L.: Magnetic Peripheral Nerve Stimulation (mPNS) for Chronic Pain, 2023

### Additional treatment option



Many patients with chronic pain have limited treatment options, and conventional methods might not provide satisfactory results. MagVenture Pain Therapy offers another option of managing chronic pain with potentially positive outcomes.

### Searching for other solutions



Existing pain management techniques like physiotherapy and TENS might not yield satisfactory outcomes for all patients, leaving healthcare providers searching for other solutions. A solution like this could very well be MagVenture Pain Therapy.

### Non-invasive procedure



Some patients are hesitant about invasive procedures and surgeries for pain relief. MagVenture Pain Therapy offers a non-invasive method that does not involve any of the typical risks associated with surgery.

Reference: <https://magventure.com/pain-therapy/>

# Patient Questionnaire

To identify if TMS therapy is right for you, your provider will ask you questions like:

yes  no Do you have epilepsy or have you ever had a convulsion or a seizure?

yes  no Have you ever had a fainting spell or syncope? If yes, please describe on which occasion(s)?

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yes  no Have you ever had a head trauma that was diagnosed as a concussion or was associated with loss of consciousness?

yes  no Do you have any hearing problems or ringing in your ears?

yes  no Do you have cochlear implants?

yes  no Are you pregnant or is there any chance that you might be?

yes  no Do you have metal in the brain, skull or elsewhere in your body (e.g., splinters, fragments, clips, etc.)? If so, specify the type of metal.

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yes  no Do you have an implanted neurostimulator (e.g., DBS, epidural/subdural, VNS)?

yes  no Do you have a cardiac pacemaker or intracardiac lines?

yes  no Do you have a medication infusion device?

yes  no Are you taking any medications? (please list)

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yes  no Did you ever undergo TMS in the past? If so, were there any problems?

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yes  no Did you ever undergo MRI in the past? If so, were there any problems?

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Affirmative answers to one or more of these questions do not represent absolute contraindications to TMS, but the risk/benefit ratio should be carefully balanced by the trained staff.