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TRANSCRANIAL MAGNETIC STIMULATION (TMS)

What is TMS?

Transcranial magnetic stimulation (TMS) is a non-invasive technique used to treat certain psychiatric conditions. This brochure provides more information about the treatment. TMS involves stimulating the cerebral cortex using electromagnetic fields. An electric coil is placed on the scalp to generate these fields. The resulting magnetic field induces an electric field in the brain cortex, which is strong enough to stimulate the brain through the scalp and skull.

When is TMS used?

The potential of TMS in treating depression was first studied in 1995. Since then, the technique has been extensively researched and optimized for use in other psychiatric disorders.

The effects are best documented in unipolar depression, but positive outcomes have also been observed in obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD). TMS is currently an officially recognized treatment for both depression and OCD.

Who is eligible?

We begin treatment after an intake interview with a physician from the neuromodulation department to determine whether TMS is a suitable treatment option for you.

Due to the use of electromagnetic fields, some individuals may not be eligible—especially those with metal prosthetics or electronic implants (e.g. pacemakers, pain pumps), as these could cause complications.

Treatment procedure

- ▲ The treatment consists of **36 sessions**, spread over 12 treatment days. Each treatment day lasts about three hours (morning or afternoon) and is scheduled over a period of three weeks.
- ▲ A single session takes about 10–20 minutes, followed by a break of about an hour.
- ▲ Before treatment begins, you will be invited to attend a number of **preliminary examinations** to determine the exact stimulation site and the correct stimulation dose.
- ▲ You will receive **hearing protection** to mute the sound of the stimulation.
- ▲ The treatment sessions take place in the **Psychiatry outpatient clinic**.

Possible side effects

TMS sessions are generally well tolerated, but may possibly cause discomfort:

- ▲ Fatigue: this side effect is very common, but usually disappears after completing treatment.
- ▲ Temporary mild headache – the most common side effect. Talk to your doctor. Standard pain relief like paracetamol is usually sufficient.
- ▲ Mild pain at the stimulation site, caused by facial muscle contractions during the session.
- ▲ Seizures – very rare when safety guidelines are followed. If you have a history of seizures, inform your doctor. This does not necessarily exclude you from treatment, but will be evaluated.

Cost

At present, health insurance does not cover TMS. To offset the costs of the equipment and its use, the hospital charges a supplement per session. An additional one-time fee is charged for determining the stimulation threshold. During the intake consultation, you can request an estimate of the total cost.