NEURO-MS/D

Therapeutic Transcranial Magnetic Stimulator

- Effective treatment of psychiatric and neurological disorders
- Reliable solution for day-to-day intensive practice
- Advanced liquid cooling technology
- Angulated figure-of-eight coils for precise deep stimulation
- Cutting edge software with pre-defined treatment protocols
- User-friendly interface

The transcranial magnetic stimulation is noninvasive method of diagnostics and treatment of neurological and psychiatric disorders with the proven efficiency.

Neurosoft

TMS

20 YEARS FOR SCIENCE AND PRACTICE

We thought through each detail to make the treatment fast, simple and comfortable for you and your patients.

WHAT IS TMS?

The alternating magnetic field generated by the stimulator easily penetrates through clothes, skin, bones and meninx. Upon reaching the conductive tissues, such as the central and peripheral nervous systems, it evokes the alternating electrical current which intensity is enough to activate the neurons.

When the repetitive magnetic stimulation is performed for some time, the long-lasting changes in cortical activity can be achieved (for example, excitation with high-frequency stimulation or inhibition with low-frequency stimulation).

That is why the transcranial magnetic stimulation (TMS) has proven therapeutic effect in the treatment of the wide range of psychiatric and neurological disorders.

TMS APPLICATION AREAS

PSYCHIATRY: treatment of depression, schizophrenia, obsessive-compulsive disorder, anxiety disorders, craving.

NEUROLOGY: treatment of pain, movement disorders, stroke, Parkinson’s disease, tinnitus, Tourette's disorder, amyotrophic lateral sclerosis, multiple sclerosis, epilepsy, Alzheimer's disease.


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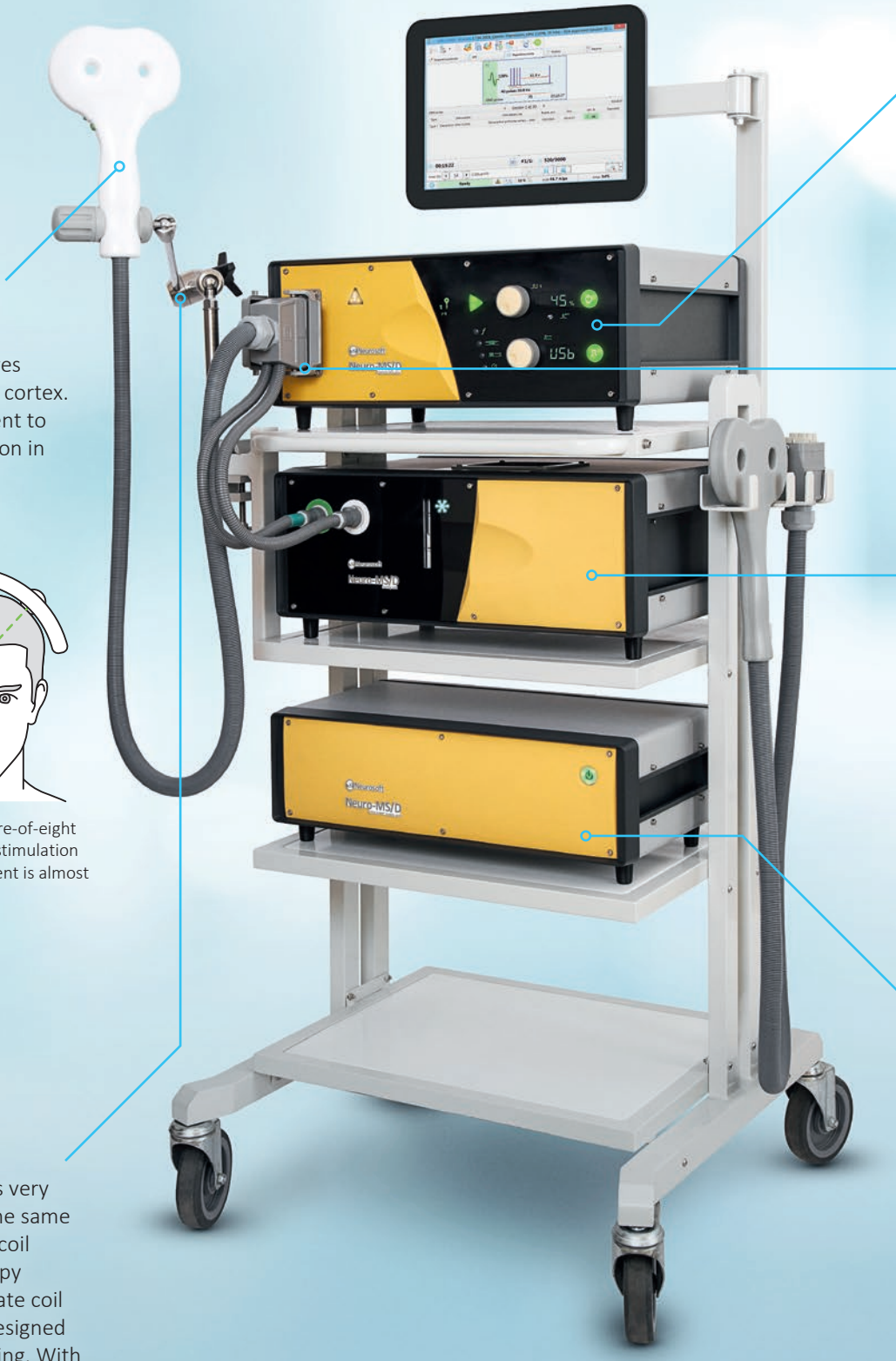
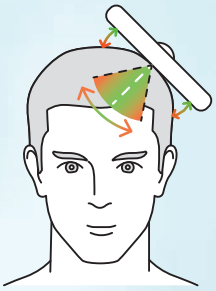
NEURO-MS/D:
THE CHOICE IS EVIDENT

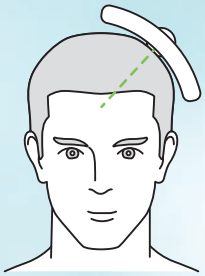


COOLED ANGULATED FIGURE-OF-EIGHT COIL

The angulated figure-of-eight coil ensures the accurate focused stimulation of the cortex. The anatomic coil shape that is congruent to head shape allows achieving the precision in positioning TMS coil and avoiding coil dislocation from stimulation point.



If flat coil is used, even slight coil motion regarding patient's head can dislocate the stimulation point for up to several centimeters!



If angulated figure-of-eight coil is used, the stimulation point displacement is almost impossible.

FLEXIBLE ARM FOR COIL POSITIONING

During the whole treatment session it is very important to keep the coil in one and the same position relative to patient's head. Any coil motion can impact negatively the therapy efficiency. To ensure reliable and accurate coil placement above the target area, we designed the special flexible arm for coil positioning. With such arm it is easy and fast to fix the coil.

INTUITIVE CONTROLS

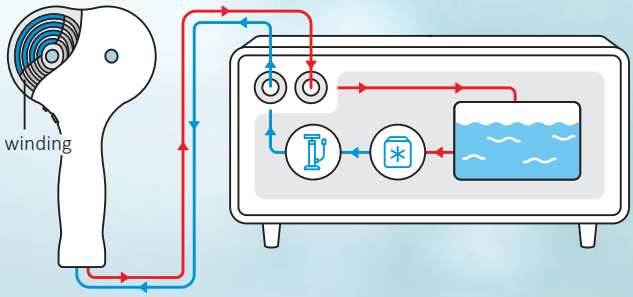
The main unit controls the whole system. The indicators showing the stimulator parameters, buttons and knobs are located on the front panel. Besides, the stimulator can be controlled by the Neuro-MS.NET software. To ensure it, just connect the main unit to computer via USB cable.

RELIABLE COIL CONNECTOR

The special industrial connector produced from high-strength materials ensures the safe coil attachment to the main unit and longstanding functioning without pin burning which is common for other connectors.

LIQUID COOLING SYSTEM

The cooling system is designed to avoid the coil overheating during long-term rTMS sessions. The advanced method of active coil component cooling is implemented in Neurosoft magnetic stimulators. The cooling liquid does not fill the whole coil, is runs inside the winding and therefore neutralizes the heat on-site. Besides, the less liquid is inside the coil, the easier and more comfortable it is to use it.

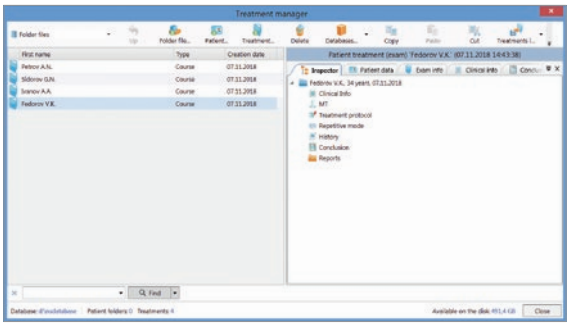


HIGH-FREQUENCY STIMULATION

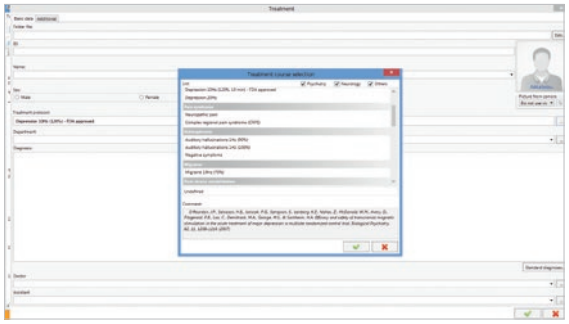
The main unit of magnetic stimulator is capable to deliver pulses at up to 30 Hz frequency. At that the maximum intensity is achieved at up to 5–7 Hz frequency. The extra power supply unit makes it possible to increase the maximum frequency of up to 100 Hz and obtain the maximum intensity at up to 20–25 Hz frequency. With this extra power supply unit the theta-burst stimulation (TBS) is performed. TBS allows achieving effect much faster in comparison with conventional rTMS.

NEURO-MS.NET SOFTWARE

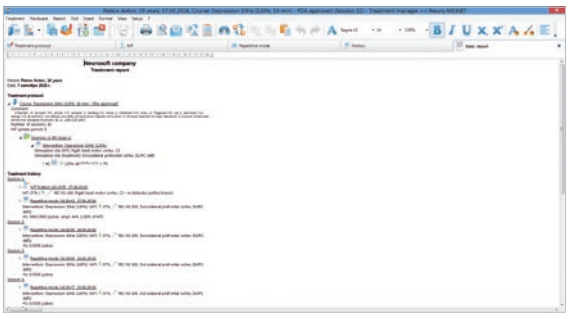
The advanced software designed to control the magnetic stimulator via the computer is capable of keeping the patient database, managing the treatment sessions, performing the stimulation using the preset protocols and also creating or customizing the available stimulation protocols. The intuitive Neuro-MS.NET interface supports also the touchscreen mode.



Patient database contains the treatment history of all your patients. Afterwards you can find any record at any time, review it or print the data you are interested in.



The software offers a vast number of **pre-defined treatment/rehabilitation protocols**. However, you can always create your own protocols that meet your needs.



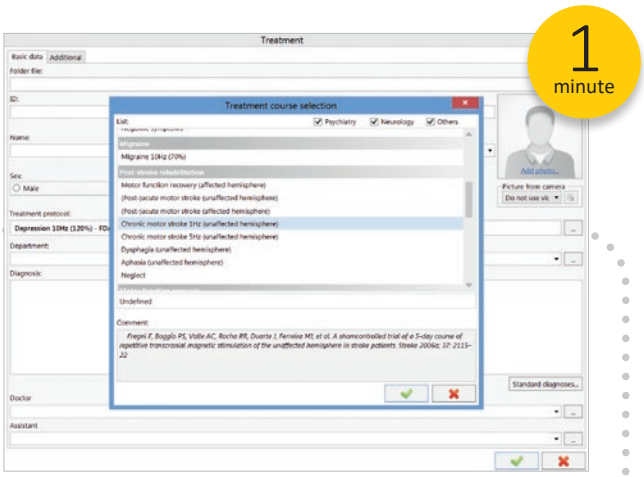
Upon the treatment session completion the software automatically generates the **treatment report** using the preset report template that is quite flexible and easily customized.

FOR THOSE WHO VALUE THEIR TIME

TREATMENT OF MOTOR STROKE

34 minutes per session in total

STEP 1. Seat a patient in the chair, adjust the leg support, neck rest and arm rest to ensure stable patient's position and comfort. Put the individual textile cap on a patient with patient's name written prior to it.



STEP 2. Using Neuro-MS.NET software create patient card and select Chronic Motor Stroke 1 Hz (Unaffected Hemisphere) protocol.

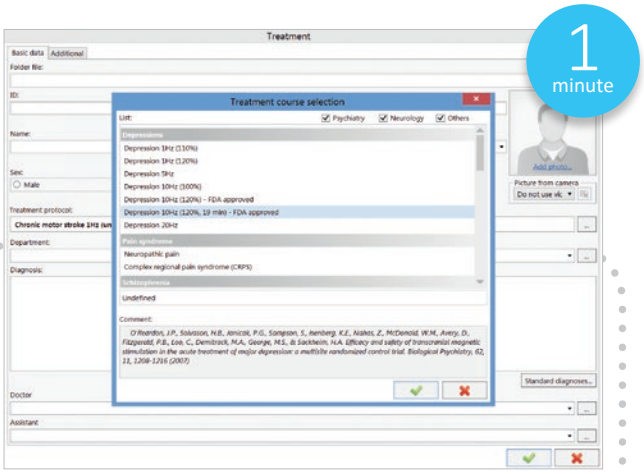
STEP 3. Determine the hotspot. Then determine the motor threshold (MT) using either semi-automatic or automatic mode if EMG machine is available. Draw the line along the coil edge on the patient cap using the marker pen to fix the obtained coil position.

STEP 4. Perform the treatment session.

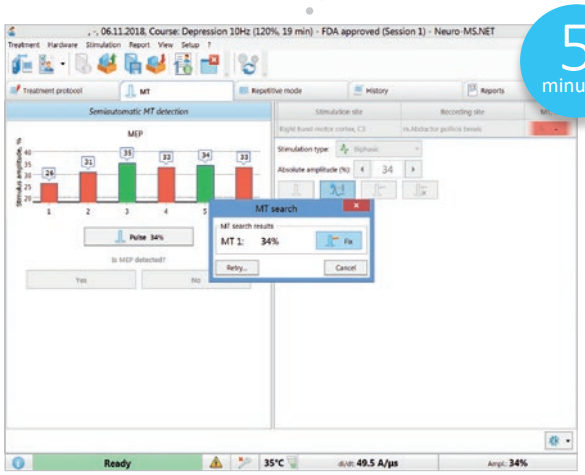
DEPRESSION TREATMENT

32 minutes per session in total

STEP 1. Seat a patient in the chair, adjust the leg support, neck rest and arm rest to ensure stable patient's position and comfort. Put the individual textile cap on a patient with patient's name written prior to it.

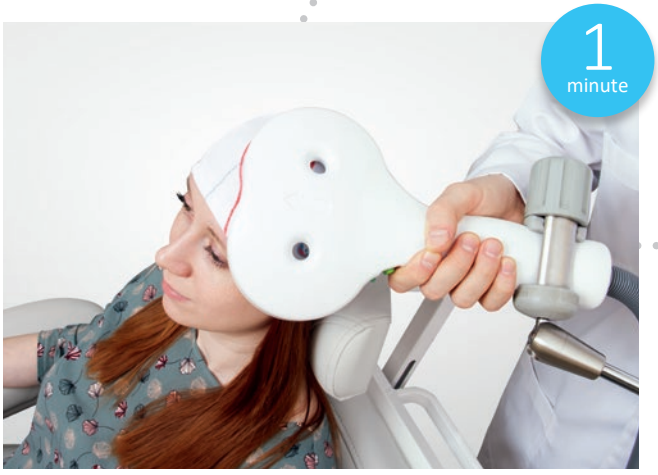


STEP 2. Using Neuro-MS.NET software create patient card and select Depression 10 Hz (120 %, 19 min) protocol.

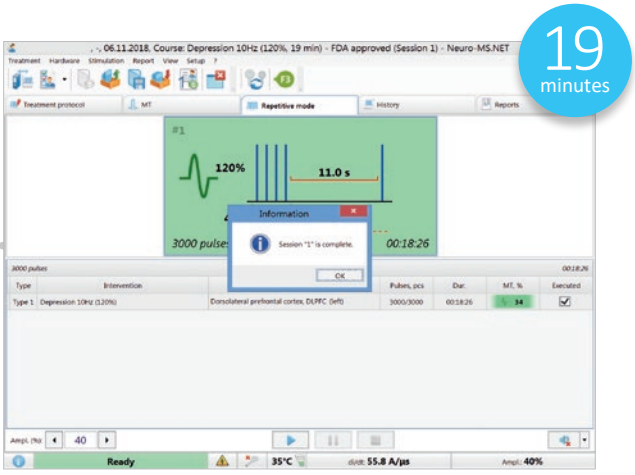


STEP 3. Determine the hotspot. Then determine the motor threshold (MT) using the semi-automatic mode. Draw the line along the coil edge on the patient cap using the marker pen to fix the obtained coil position.

STEP 4. Determine the targeted stimulation site using the coil positioning tool. Draw the line along the coil positioning tool edge with the marker pen.



STEP 5. Position the coil over the stimulation area in accordance with the line on the patient cap and fix with the arm for coil positioning.



STEP 6. Perform the treatment session using 19-minute protocol.

DEEP AND PRECISE STIMULATION

WITH NEUROSOFT COILS

The high-frequency repetitive stimulation is used to perform the treatment sessions. The delivery of a large number of pulses can lead to coil overheating, that is why we designed the cooled coil series. Due to breakthrough cooling system you can forget of overheating and the variety of coil shapes shall enable you to achieve the positive outcomes in each individual case.

RING COIL

It is perfect for the peripheral stimulation of large muscles and cortical bilateral stimulation.

It is used also for the peripheral stimulation in urology and coloproctology.

Coil winding diameter – 150 mm.

FIGURE-OF-EIGHT COIL

The conventional rTMS coil.

Coil winding diameter – 2x100 mm.

ANGULATED FIGURE-OF-EIGHT COIL

Deep cortical stimulation.

Accurate focusing.

Anatomic shape being congruent to head shape ensures closer fitting to the patient's head.

Coil winding diameter – 2x100 mm.

DOUBLE CONE COIL

The deepest stimulation including cortex representations of low limb and pelvic floor muscles, cerebellum and dmPFC.

Coil winding diameter – 2x125 mm.


Ready indicator
Ergonomic handle
Trigger button

WITH ATTENTION TO DETAILS

The efficiency of treatment TMS sessions highly depends on the coil positioning precision, patient's comfort and safety during the procedure. To consider these important factors, we offer you the special accessories and devices to equip your magnetic stimulator.

1

SEAT PATIENT IN A COMFORTABLE CHAIR

The *Comfort* medical chair designed to perform TMS sessions allows a patient to relax and seat ease before the long-term stimulation session. All chair parts (back rest, foot rest, head rest, arm rest and leg rest) are easily adjusted with individual positioning for patient's height and constitution.

— Two independent electric motors to adjust the head rest and leg rest.

— Remote control with buttons to adjust different positions.

— Central locking system to lock each wheel.

NAVIGATION SYSTEM

To find the treatment spot, the most clinicians use the anatomical landmarks. Due to individual scull anatomy such stimulation can often be inaccurate. Recently, there was developed a technique that allows entering MRI data of a particular subject to computer before the stimulation session and perform MRI-guided stimulation using the 3D target markers on patient's brain rendering. Neuro-MS/D stimulators can be used together with such navigation systems.

2

PUT THE SPECIAL PATIENT CAP ON

The use of individual patient cap to mark the points saves your time usually spent for coil positioning during each next session. Besides, it is optimal for hygiene practice.

3

USE COIL POSITIONING TOOL

To achieve the maximum treatment efficiency, it is required to determine the stimulation spot precisely. The specially designed coil positioning tool allows you to find this spot quickly and position the coil over this area accurately. This spot is marked on the patient cap. It is very convenient as you will not have to determine it again.

PRODUCT LINE OF MAGNETIC STIMULATORS

Neuro-MS/D advanced therapeutic

Neuro-MS/D therapeutic

Neuro-MS/D diagnostic

Neuro-MS monophasic (for paired pulse stimulation)

Neuro-MS monophasic (for single pulse stimulation)

Diagnostic TMS: MEP, CSP, CMCT, MT*	+	+	+	+	+
Advanced diagnostic TMS: paired stimulation, SICI, LICI, ICF (GABAergic mechanisms)*				+	
Therapeutic rTMS	+	+			
Advanced therapeutic rTMS up to 100 Hz, TBS	+				

* is available with Neurosoft or third-party digital EMG system

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