

THE R20 FAMILY:
**MAGNETIC STIMULATION
DELIVERED IN THE
SIMPLEST WAY**

PSYCHIATRY

DIAGNOSTICS

DISEASE MONITORING

WHAT IS MAGNETIC STIMULATION?

A BRIEF INTRODUCTION

Magnetic stimulation is a rapidly growing, non-invasive technology that does not require anesthesia or surgery. A magnetic coil is used to apply brief magnetic pulses on either the head or the body.

Magnetic stimulation can be used in neurorehabilitation and psychiatry.



Diagnostics and disease monitoring (neurorehabilitation)

In neurorehabilitation, magnetic stimulation is used as an electro-physiological aid to assess diagnosis and to monitor diseases of the central and peripheral nervous system, including the assessment of individual motor function such as movement, motoric, and strength.

In diagnostics and disease monitoring, magnetic stimulation, applied either on the patient's head or body, is used to cause a muscle response and measure the activity and function of specific brain circuits. It is a neurophysiological aid, based on Motor Evoked Potential (MEP). It is used to measure the connection between the primary motor cortex and a muscle in order to assess the damage from various conditions, including stroke, multiple sclerosis, amyotrophic lateral sclerosis, movement disorder, as well as injuries and other disorders affecting facial nerves and the spinal cord.



Psychiatry (depression therapy)

Within psychiatry, it is used as a therapy for treatment-resistant depression. As it is applied on the brain it is called Transcranial Magnetic Stimulation (TMS).

During the TMS procedure, magnetic pulses are delivered to stimulate nerve cells in the part of the brain controlling the mood.

The behavioral and functional consequences of depression are due to changes in brain activity. TMS modulates the circuits in the brain controlling mood and emotion by targeting the exact areas in the brain affected by depression. Repeated cycles of TMS followed by rest periods have shown to have an antidepressant effect.



GETTING STARTED WITH MAGNETIC STIMULATION – WE'RE HERE TO HELP YOU MAKE THE RIGHT DECISION

You may consider whether magnetic stimulation could be an option in your field. You are perhaps unsure about the possibilities and the practicalities involved in getting started; for instance, in terms of training, support, logistics, and financing. Yes, investing in TMS equipment is a big decision, but we – along with our subsidiaries and global partner network – are more than ready to help, guide, and support you through the whole process. Consider it a partnership.

Among the range of TMS systems that MagVenture offers, the R20 family is our entry-level and easy-to-use solution for innovators seeking to become pioneers within magnetic stimulation. Depending on your needs, your solution setup may consist of only a stimulator and coil. However, the R20 comes in three different solutions and each with different features, which – combined with our large coil selection – allows you to choose a setup tailor-made to your specific application needs.

5 REASONS TO CHOOSE THE R20 FAMILY

1. **Magnetic stimulation delivered in the simplest way**
2. **Easy, intuitive user interface**
3. **Compact, mobile design**
4. **Onsite installation, training, and support**
5. **Cost-effective**

MAGNETIC STIMULATION IN SHORT

- Magnetic pulses applied to the head or body
- Non-invasive
- No anesthesia
- Easy activation of peripheral nerves and central nervous system



R20

The R20 is our simplest solution and suitable for assessing diagnosis and monitoring diseases of the central and peripheral nervous system, based on the use of Motor Evoked Potential (MEP).



R20+

The R20+ is pulsewidth optimized for higher frequency and more intense stimulation. This allows for a close resemblance of the dynamics of the nervous system; thus, adding even more possibilities within diagnostics and monitoring in neurorehabilitation.

The hardware of the R20+ allows for even more aggressive provocation of the neuro-muscular and the neuro-sensory systems, thereby enabling a deeper and more realistic functional activation.

Standard rTMS protocols for depression therapy can be done as well.



MOST POSSIBILITIES

R20+ EXPRESS

The R20+ Express solution has the same features as the R20+ but with the addition of a theta burst solution and a Wi-Fi package.

Run 3-minute depression therapy sessions which is the fastest TMS depression therapy currently available and is known as theta burst, or Express TMS®.

With the Wi-Fi package, it is easy to create a protocol on your computer, upload it to the stimulator and subsequently print log files of performed protocols.

Mainly interested in TMS depression therapy?

If you wish to offer TMS therapy for depression, it is possible with the R20. We do, however, recommend the R20+ or the R20+ Express solution.

Need the fastest TMS depression therapy (theta burst)?

We then recommend the R20+ Express solution. With this setup, you can run 3-minute TMS therapy sessions with our CE approved Theta Burst protocol, also known as Express TMS®.

Mainly interested in diagnostics?

The R20+ Express can easily be used for diagnostic procedures. If your main field is, however, diagnostics, we suggest an R20+.

POSSIBLE SETUPS

A

Diagnostics (basic)

- » **Stimulator:** R20
- » **Coils:** C-100, C-B70, MMC-140II
- » **Accessories:** Flex Arm (coil holder) with table clamp, EMG apparatus*

B

Diagnostics (aggressive provocation)

- » **Stimulator:** R20+
- » **Coils:** MMC-140II, MMC-90, RT-120II, MCF-125
- » **Accessories:** Flex Arm (coil holder) with table clamp, EEG and EMG apparatus*

C

Standard depression therapy (37 minutes)

- » **Stimulator:** R20+
- » **Coils:** MCF-B70, C-B70
- » **Accessories:** Treatment chair, vacuum pillow for head stabilization, flex arm (coil holder), and various treatment accessories

D

Advanced depression therapy (3 minutes)

- » **Stimulator:** R20+ Express
- » **Coil:** MCF-B70, C-B70
- » **Accessories:** Treatment chair, vacuum pillow for head stabilization, flex arm (coil holder), and various treatment accessories

** The EMG and EEG apparatus are not sold by MagVenture.
Contact your local sales representative for more guidance.*

NEED EVEN MORE OPTIONS?

We suggest that you consider our next level range of stimulators (the R30), which will seriously expand your options, adding far more flexibility and choices as well as several upgrade possibilities.

Psychiatry

Added power, an extremely efficient cooling system for an unlimited patient flow, more advanced software geared towards possible future protocols, and an unmatched coil selection of more than 35 coils are among the many advantages.

Furthermore, your options also include advanced coil positioning (the Flow Arm), neuro-navigation, patient management, and robotic TMS.

In psychiatry, researchers are investigating how TMS may be used for new indications.

Neurorehabilitation

Rehabilitation researchers seek to find out how to restore lost or damaged body functions in people with diseases and injuries of the central and peripheral nervous system in order to develop new, effective rehabilitation technologies.

Need more information?

If you are interested in learning more, please contact your local sales representative to get more advice on how to get started.

THE R20 FAMILY: AN OVERVIEW



The R20, R20+, and R20+ Express solution are all part of our entry-level portfolio. So, which one should you choose? Specific features and capabilities differentiate them. This chart provides an overview to help you make the right decision. Whether your interest is in diagnostics, as well as assessment and monitoring diseases of the central and peripheral nervous system or you are a psychiatrist wishing to add more treatment options for your depression patients, MagVenture offers a solution to match your needs.

We always recommend, however, that you contact MagVenture or your local MagVenture representative for more detailed guidance based on your specific needs.

	R20	R20+	R20+ Express	<div>NEXT LEVEL</div> R30
Application				
Diagnostics	✓	✓	✓	✓
Aggressive provocation of neuromuscular function		✓	✓	
Standard depression (37 minutes)	✓	✓	✓	✓
Advanced depression (3 minutes)			✓	✓
Stimulation paradigm				
Single pulse	✓	✓	✓	✓
rTMS	✓	✓	✓	✓
Theta burst			✓	✓
Maximum repetition rate				
20 Hz	✓			
30 Hz				✓
100 Hz		✓	✓	
Pulse form				
220 µs		✓	✓	
280 µs	✓			✓
Wi-Fi package				
Optional	✓	✓		
Included			✓	

A grayscale world map with blue circular markers containing a white 'M' indicating MagVenture's presence in various regions. Markers are located in Mexico, the USA, Brazil, Germany, the UK, and France.

WHO IS MAGVENTURE?

MagVenture is a Danish medical device company specializing in non-invasive magnetic stimulation systems for the treatment of major depressive disorder and neuroscience research. Through collaborations with leading neuroscientists around the world, MagVenture has – for well over two decades – helped researchers push the technology forward in fields such as neurophysiology, neurology, cognitive neuroscience, rehabilitation, and psychiatry, thus shaping the future path of TMS. MagVenture's coils and magnetic stimulators are ranked among the most powerful, advanced and durable on the market and sold globally through direct sales subsidiaries in the USA, Germany, the UK, Brazil, and through a network of distributors in Europe, Asia, Middle East, and the Americas.



INTENDED USE

Diagnostic use

The MagPro R20 family is CE approved as an electro-physiological aid to assess diagnosis and to monitor diseases of the central and peripheral nervous system, based on the use of Motor Evoked Potential (MEP).

Therapeutic use

MagVenture TMS Therapy® is CE approved for “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”.

Please note that the stimulators, features, coils, and accessories described, may not all be available in your country/region. For more information, please consult with your local MagVenture representative.

For more information, please contact us at info@magventure.com or go to:

www.magventure.com