

# Magnetic Brain Stimulation for Stroke Recovery

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*Magnetic brain stimulation for stroke recovery is a non-invasive, cutting-edge treatment.*

This type of brain stimulation is formally known as transcranial magnetic stimulation (TMS), and it's still under heavy research and development. But it's gaining momentum – *fast*. Let's explore what TMS can offer for stroke recovery.

## How Does Transcranial Magnetic Stimulation Work?

Magnetic brain stimulation works by activating the damaged part of the brain. During TMS, neurologists wave a magnetic device over your head and the magnetic stimulation helps initiate better communication between both sides of the brain. Because a stroke affects one side of the brain, stroke recovery is often discussed as a one-sided matter.

But you need to focus on both sides if you want a **successful recovery**. Each side of the brain controls the opposite half of our body, yet we still need both sides of the brain to operate one side of the body (you'll see what we mean in the next section). In this respect, TMS can boost stroke recovery by fostering better communication between both sides of the brain to get your affected side working again.

The key to this concept lies in your brain's 'go' and 'no-go' signals.

# The Go and No-Go Brain Signals

To explain how these signals work, let's use an example of moving your left hand. To move your left hand, your right brain fires off a 'go' signal to your left hand to make your muscles contract. Moving your left hand is a **unilateral movement**, and your body naturally wants to move in bilateral movements; so your brain has to fire off a 'no-go' signal to your right hand to prevent it from moving.

To make one side of your body move, it requires a 'go' signal from one half of the brain and a 'no-go' signal from the other half.

During stroke rehab, you'll be diligently working to regain movement on your affected side – but it's not possible without both sides working in harmony. While you perform your **rehab exercises**, your brain utilizes the power of **neuroplasticity** to rewire your brain and restore motor function. *At the same time*, your brain is also working on correcting its 'go' and 'no-go' signals.

Indeed, your brain is an amazing, adaptive machine. It's busy doing all sorts of things to heal itself and get everything back to normal.

## What the Studies Have Shown

Magnetic brain stimulation sounds promising, but it's still cutting-edge technology. This means that much more research needs to be conducted before it's offered commercially.

Luckily the research has already begun. In [this study](#), 10 stroke patients received TMS therapy while others received a 'placebo' therapy. The TMS group improved their response time by up to 50% while the placebo group stayed the same.

Fifty percent is a big deal, and it shows a very promising future for TMS and stroke recovery.

### Related Reading:

- Stem Cell Treatment for Stroke – 8/6/2015
- How Does the Brain Recover after Stroke? – 9/3/2015
- 7 Methods for Motor Recovery after Stroke – 10/16/2015