**Stroke**

**Most of all during rehabilitation, rTMS gains growing importance**

Studies proof improvement von balance disturbances, visual neglect, motor skills, paresis and spasticity as well as speech disturbances. Reactive depressions can be treated as well. Most of all rTMS can help, when damaged tissue is within deeper regions of the brain. It has been shown, that rTMS may help also up to 14 years after a brain attack and can stimulate plasticity.

Initial treatment can be performed at the outpatient practice of Dr. Seemann in form of an **intensive 2-4 week treatment, with rTMS sessions each day.**

In cooperation with a day clinic in Munich for regenerative medicine we do recommend a combination with **stem cells** therapy.

**Studies concerning rTMS and stroke**

- The effects of 10-Hz repetitive transcranial magnetic stimulation on depression in chronic stroke-patients
- Repetitive transcranial magnetic stimulation promotes functional recovery and differentiation of human neural stem cells in rats after ischemic stroke
- Effects of high- and low-frequency repetitive transcranial magnetic stimulation on motor recovery in early stroke patients: evidence from a randomized controlled trial with clinical, neurophysiological and functional imaging assessments
- The effect of low-frequency repetitive transcranial magnetic stimulation (rTMS) on the treatment of aphasia caused by cerebrovascular accident (CVA)
- Effects of different frequencies of repetitive transcranial magnetic stimulation in stroke patients with non-fluent aphasia: a randomized, sham-controlled study
- Effects of combining high- and low-frequency repetitive transcranial magnetic stimulation on upper limb hemiparesis in the early phase of stroke
- Low-frequency repetitive transcranial magnetic stimulation for stroke-induced upper limb motor deficit: a meta-analysis
Further evidence of the positive influence of repetitive transcranial magnetic stimulation on speech and language in patients with aphasia after stroke: results from a double-blind intervention with sham condition

The use of repetitive transcranial magnetic stimulation for stroke rehabilitation: a systematic review

Effectiveness of repetitive transcranial magnetic stimulation (rTMS) after acute stroke: a one-year longitudinal randomized trial

Repetitive transcranial magnetic stimulation ameliorates cognitive impairment by enhancing neurogenesis and suppressing apoptosis in the hippocampus in rats with ischemic stroke

The efficacy of high-frequency repetitive transcranial magnetic stimulation for improving apathy in chronic stroke patients

Low-frequency repetitive transcranial magnetic stimulation improves motor dysfunction after cerebral stroke

Effects of 10Hz repetitive transcranial magnetic stimulation of the left dorsolateral prefrontal cortex in disorders of consciousness

Low-frequency rTMS of the unaffected hemisphere in stroke patients: a systematic review

Effects of low-frequency repetitive transcranial magnetic stimulation on upper extremity motor recovery and functional outcomes in chronic stroke patients: a randomized controlled trial

Effects of low-frequency repetitive transcranial magnetic stimulation and neuromuscular electrical stimulation on upper-extremity motor recovery in the early period after stroke: a preliminary study

High-frequency repetitive transcranial magnetic stimulation (rTMS) improves functional recovery by enhancing neurogenesis and activating BDNF/TrkB signaling in ischemic rats

Dynamics of neuroinflammation in the macrosphere model of arterio-aerterial embolic focal ischemia: an approximation to human stroke patterns

Effects of repetitive transcranial magnetic stimulation over trunk motor spot on balance function in stroke patients

Ipsilesional high frequency repetitive transcranial magnetic stimulation add-on therapy improved diffusion parameters of stroke patients with motor dysfunction: a preliminary DTI study

The effect of 10-Hz repetitive transcranial magnetic stimulation on depression in chronic stroke patients?

A sham controlled trial of 5-day course of repetitive transcranial magnetic stimulation of the unaffected hemisphere in stroke patients