Transcranial Magnetic Stimulation (rTMS) for Mild Cognitive Impairment (MCI)

What is rTMS?
• rTMS is a non-invasive method of stimulating the brain's neurocircuitry.

What is MCI?
MCI means that a person's memory is impaired, but their overall thinking is not as impaired as it is with Alzheimer’s disease dementia.

If you are experiencing memory problems consistent with MCI, and you interested in participating in this study,

Please call (650) 852-3457

Want more information or have further questions?

Please contact:
Nicole Strossman
rTMS MCI Study Coordinator
Phone: 650-852-3457

or
Ask your doctor about rTMS or about MCI

For general information about participant rights, call 866-680-2906

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Study Site:
VA Palo Alto Health Care System
Stanford/VA Aging Clinical Center
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3801 Miranda Ave. 151Y
Palo Alto, CA 94304

Join Us in Our Efforts to Improve Memory

A Research Study for Adults Ages 55-90 with MCI
About the Study: rTMS for MCI

More about rTMS...
- Provides brain stimulation in a medical office setting.
- Does not involve experimental drugs. Does not have the side effects of currently approved drugs for Alzheimer’s disease.
- May be an alternative treatment to improve memory, attention and other cognitive abilities.

Study Treatment Procedures
- As a study volunteer, you would relax in a chair.
- A metal coil in a plastic case will be precisely positioned on your head, above brain areas involved in memory, mood, and attention.
- You may hear a clicking noise, but earplugs will be provided.
- Each rTMS session lasts about 25 minutes, plus 25 to 45 minutes to set up.
- Participants receive 20 sessions, Monday-Friday. This takes 2 to 4 weeks.

What does rTMS feel like?
- Part of the scalp may feel painful. If so, acetaminophen or ibuprofen can be taken. If pain or headache occur, it will typically diminish or go away in later sessions.
- Facial twitching or temporary facial numbness may occur.
- In general, rTMS is well tolerated. Janicak 2015, www.ncbi.nlm.nih.gov/pmc/articles/PMC4492646/

How does rTMS work?
- rTMS generates a magnetic field that penetrates the scalp to produce very small electrical currents in the brain.
- These currents stimulate areas of the brain that are involved in memory, mood, attention, and thinking.
- The magnetic field generated during rTMS is comparable to MRI, except that the field is focused on a limited area.

Other Study Procedures
- There is a pre-treatment “baseline” visit. The baseline procedures, including MRI and memory assessments, will be repeated after the end of the treatment.
- Participants will be asked to return two more times to re-check memory function.
- The entire study takes about 7 months.

Compensation
- Compensation for time is up to $900.

Uses of rTMS
- Although rTMS has shown promise in improving cognitive function in preliminary studies of Alzheimer’s disease (AD) dementia, very few rTMS studies of Mild Cognitive Impairment (MCI) have been conducted.
- Other potential uses of rTMS include migraine, stroke rehabilitation, and mild traumatic brain injury.
- rTMS is an FDA-cleared treatment for depression.