



STRUGGLING TO FIND THE RIGHT WORDS AFTER STROKE?

OPPORTUNITY

- Receive intensive and personalized speech-language therapy
- Receive intensive and personalized brain stimulation treatment

Exclusive to research

- Meet 1-on-1 with Cognitive Neurologist for screening

Payment for your time and travel available

ABOUT OUR STUDY

Dr. H. Branch Coslett and his team of researchers are inviting you to participate in a clinical trial to find out if a combination of two treatments can help improve speech for people who have aphasia after a stroke.

How: Combining
Transcranial
Magnetic Stimulation
(TMS) & Intensive
Language Therapy
(CILT)



20 visits

Who:
People 2-12 weeks
post stroke

Where: Laboratory
of Cognition and
Neural Stimulation



1800 Lombard St.
Phila, PA



TRANSCRANIAL MAGNETIC STIMULATION FOR RESEARCH



HOW IS TMS PERFORMED?

You will be fitted with a headband as the researcher holds the TMS “coil” on your head. Then, a researcher will start the stimulation. This creates a magnetic energy called a “pulse”. The pulse creates a current that stimulates a small part of your brain.

You will know when the coil is on because you will hear a clicking noise and might feel tapping on your head. TMS can be applied one pulse at a time or as a series of pulses. Pulses feel like a rubber snap or flick on the scalp.

Talk with the research staff so that you understand what to expect during the TMS procedure.

WHAT IS TRANSCRANIAL MAGNETIC STIMULATION?

Transcranial magnetic stimulation (TMS) is a way to stimulate the brain that is completely noninvasive.

A researcher holds a small plastic device called a “coil” on your head. This creates a field of magnetic energy. The magnetic energy moves through the coil and creates an electric current that stimulates your brain cells.

WHAT ARE THE RISKS?

TMS is safe and our lab has conducted thousands of sessions without any serious adverse effects. A mild headache is the most common side effect. This can happen during TMS or after it.

Depending on where researchers put the coil, muscles in your face, head, neck, or hand might twitch, or move, slightly. This can be uncomfortable for some people.

TMS carries a very small risk of causing a seizure, but it has never been reported in more than 300 subjects treated with TMS for aphasia after stroke. In the unlikely event that a seizure were to occur, it is very likely to be brief and resolve on its own. TMS is not associated with recurrent seizures.

To avoid risks all subjects will have a medical interview with a neurologist to determine it is safe to participate.

IS TMS FDA APPROVED?

Before TMS can be used to treat an illness, the US Food and Drug Administration (FDA) must approve the device for this purpose. The FDA has approved TMS for the treatment of major depression and migraine.

However, TMS is not yet approved for the treatment of post-stroke aphasia – which is why we are conducting this research.

Scan the QR Code with your phone camera to watch an informational video on TMS:



scan me

CONSTRAINT INDUCED LANGUAGE THERAPY (CILT) IS A PROVEN TECHNIQUE TO TREAT APHASIA



WHAT IS EVIDENCE-BASED PRACTICE (EBP)?

EBP is used to help decide the best approach to therapy. It combines the best available research, clinical expertise, and the patient's input.

For instance, a healthcare provider may review current research on a treatment's effectiveness, apply their professional experience to determine if it's appropriate, and consider the patient's goals and preferences.

By combining these three elements—research, clinical expertise, and patient preferences—EBP supports informed, individualized care that aims to achieve the best possible outcomes!

WHAT IS CONSTRAINT INDUCED LANGUAGE THERAPY (CILT)?

CILT is a specialized speech therapy that has been used clinically for over 20 years. Its purpose is to help individuals with aphasia improve their ability to speak and communicate.

CILT encourages people to use verbal speech as much as possible by limiting (or “constraining”) the use of other forms of communication such as gestures, writing, or pointing.

By forcing the brain to rely on spoken language, CILT helps “rewire” brain pathways to improve speech abilities, especially after a stroke or brain injury.

WHAT DOES THE EVIDENCE SAY ABOUT CILT?

Studies have shown that CILT can lead to significant improvements in language abilities; including naming, comprehension, repetition, and spoken language.

Several studies have demonstrated that CILT promotes changes in the brain and enhances neuroplasticity. These changes can often result in improvements in language function.

Studies also find that more frequent and longer therapy sessions results in larger improvements in speech and language skills. In aphasia rehabilitation, patients receiving intensive therapy show greater gains than those with lower frequency or shorter sessions.

INFORMATION ON CLINICAL TRIALS

Should I be a research participant?



HOW DO CLINICAL TRIALS WORK?

In most clinical trials a participant is assigned to either a treatment or a control group. This is often random (like a coin toss), so you may not know which group you are assigned to.

Treatment Group: Participants in this group receive the intervention that is being tested.

Control Group: Participants in this group do not receive the intervention. Instead they might receive the standard treatment, or they might receive a "placebo". A placebo looks or feels like the intervention, but it is not an active medicine or treatment. The control group helps the researchers understand the effects of the experimental intervention.

WHAT IS A CLINICAL TRIAL?

A clinical trial is a type of research study that includes human participants. The focus of a clinical trial is to test the safety and effectiveness of a medical intervention – this can be a drug, device, or treatment.

The researcher collects data (information) about how the intervention affects participants' health.

WHY ARE CLINICAL TRIALS IMPORTANT?

Clinical trials are needed to develop or test new drugs, devices, treatments, and procedures.

They help answer questions such as: Does it work? Does it work better than other treatments? What amount is safe and effective? What are the side effects?

SHOULD I PARTICIPATE IN RESEARCH?

Participating in research can be a great opportunity, but it is important to be fully informed before you participate.

The development of new medical treatments and cures would be impossible without the help of research participants. By volunteering in a study, you will help others by contributing to medical research. You could also help researchers to learn about a disease or condition. In some cases, you can try a new drug, procedure, or device before it is available outside of research studies; however, they may not work better than the ones that are already available.

LCNS Stroke Research Team



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