

# Research Study: Impact of Neuromodulation on Language Impairments in Stroke Patients

## What is the purpose of this study?

We will explore the effectiveness of transcranial direct current stimulation (tDCS) in treating post-stroke aphasia. We will also look at who will benefit most from this intervention.

## What is involved with participation in this study?

If you qualify and decide to participate in the study:

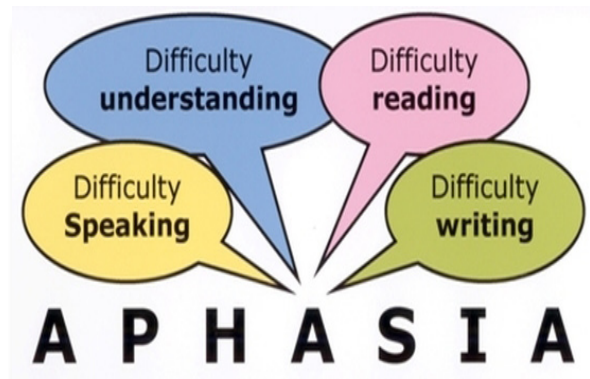
- ◆ Each participant will receive 5 sessions (20 minutes each) of tDCS or sham (placebo) treatment while simultaneously receiving speech therapy, at no cost to you or your insurance, within a week time period.

The following data will be collected within a week before you start and after you complete your fifth session:

- ◆ Testing will be performed by a trained speech therapist to assess your language, communication, cognition, and quality of life. The assessment should last around an hour.
- ◆ Electrodes will be put on your head by trained staff to measure brain activity (electroencephalography, or EEG). This recording should last an hour.
- ◆ Imaging of your brain (using Magnetic Resonance Imaging, or MRI) will be done at the Casa Colina Diagnostic Imaging Center. This recording should last less than an hour.

## What is tDCS?

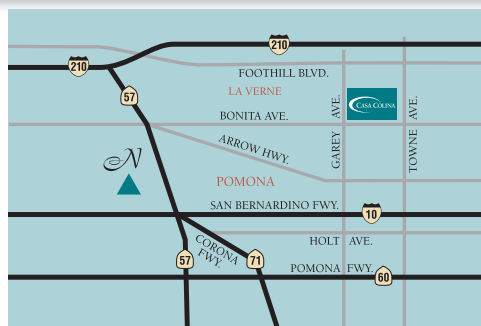
Transcranial direct current stimulation (tDCS) is a non-invasive procedure (meaning it does not enter the body) that uses weak electrical currents applied to the head in order to enhance brain activity.



## Who is eligible to participate?

- ◆ Must be 18 years old or older.
- ◆ Post 12 months from date of stroke
- ◆ Must have diagnosed aphasia due to ischemic or hemorrhagic stroke
- ◆ Will be excluded if you've had previous neurological or psychiatric condition prior to your stroke.

For more information or to find out if you or your patient or family member qualifies, please contact Henry Millan, Research Coordinator, Casa Colina Research Institute, at 909/596-7733, ext. 2283 or [hmillan@casacolina.org](mailto:hmillan@casacolina.org).



Disability ———  
**Communications**  
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