It's easy to participate!

We have many options for sessions



Self-Transportation: We can give you \$40 each session to cover costs to our lab



Freedom Car: Free door-to-door car service to our lab



Hotel: If you live far away, we can provide free lodging in a hotel close to our lab



Home: Depending on location and availability, we may be able to have sessions in your home

Optional parts of the study

You can choose if you want to do the parts of the study listed below

- MRI: Magnetic Resonance Imaging
- fNIRS: functional Near Infrared Spectroscopy
- Genetic analysis of saliva sample

Stroke Recovery Project



Are you older than 18 years old? Have you had a stroke in the last 3 months? Do you have speech and language difficulty?

You may qualify to participate in a study with free language therapy!

Stroke Cognitive Outcomes and REcovery (SCORE) Lab Contact: Argye Hillis, MD (Principal Investigator) or Bonnie Breining, PhD

& 410-955-5888 or 410-502-6045

- Real argye@jhmi.edu
- School of Medicine

What is it?

 15 sessions of <u>free</u> language therapy



 Study Goal: To understand whether noninvasive brain stimulation can help make language therapy more effective for people with language problems caused by stroke ("aphasia")

What you'll do

 Computerized treatment that has been shown to improve spoken naming



 Along with a type of noninvasive brain stimulation called <u>transcranial Direct</u> Current Stimulation (tDCS)

tDCS

- $\,\circ\,$ Low voltage electrical current applied with electrodes and sponges
- $\circ\,$ Stimulation is not painful; sometimes people report it itches a little
- $\,\circ\,$ Most people do not feel it after 30 seconds



- No long-term risks
- The idea is that tDCS makes it easier for neurons to fire, and using it while doing a task can help strengthen the network of brain areas involved in that task

Why tDCS?

 By comparing groups, we want to see if the stimulation adds to the effects of language therapy

<u>Group 2:</u> Therapy + Stimulation • tDCS machine is on for 20 minutes

 Groups are assigned randomly, like flipping a coin



 The study is "double-blind." Neither the researchers in the sessions nor the participants know who is getting the stimulation

How many sessions?

Baseline language and cognitive assessments

- 2-3 sessions each 1-2 hours
- Evaluate language and eligibility before therapy

15 treatment sessions

• 1 hour each, at least 3 times a week Follow-Ups

- 2 sessions each 1-2 hours
- Evaluate improvement after treatment, at time points: 1 week, 5 weeks, 20 weeks