

Research Study: Fast Training to Promote Recovery of Arm Movement Post-stroke

What is the purpose of this study?

Following a stroke, individuals often experience hemiplegia, or weakness on one side of the body. On the weak side, people have increased difficulty with purposeful arm movements. The purpose of this study is to evaluate the effectiveness of many fast repetitions of specific arm movements to improve the speed, smoothness, and accuracy of motor movement post-stroke.

What is involved with participation?

If you qualify and decide to participate, you will visit the laboratory **8 times over a 6-week period**. During the first 2 visits, you will undergo a series of tests. Then, you will receive **4 sessions of speed and accuracy training within a 4-day window**. You will then return for **follow-up testing 3 days and 1 month post-training**.

The following data will be collected before you start and after you complete your fourth session:

- ◆ Assessments will be made by trained staff to test your ability to perform arm reaching and elbow movement exercises.
- ◆ During testing, trained staff will place surface electrodes on participant's forearm, elbow, and/or shoulder muscles to measure activity using electromyography (EMG).

The following will be performed before the first session:

- ◆ 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.

Who is eligible to participate?

- ◆ Must be **18 years of age or older**
- ◆ Must be **post 6 months from date of stroke**
- ◆ Must have some **ability to move arms and follow simple instructions**
- ◆ Cannot have had previous neurological or psychiatric condition prior to stroke



For more information or to find out if you or your patient or family member qualifies, please contact Niko Fullmer, Research Coordinator, Casa Colina Research Institute, at 909/596-7733, ext. 2220 or nfullmer@casacolina.org.

