Purpose of this Research:

To evaluate the effectiveness of a new type of gait rehabilitation using virtual reality and brain stimulation for stroke patients



This research has been approved by the University of Rhode Island Institutional Review Board

This research is funded by The Rhode Island Foundation

Awarded to Susan D'Andrea, PhD (401) 874 - 5210 Department of Kinesiology University of Rhode Island 25 W. Independence Way Kingston, RI 02881

STROKE PATIENTS NEEDED FOR RESEARCH STUDY



You may qualify to participate if you are:

- Age 18-75 years.
- Able to walk for 30 minutes without assistive devices.
- Have suffered a stroke.
- At least 6 months post stroke
- Have weakness or partial paralysis in a lower extremity as a result of your stroke.
- Able to maintain a standing posture for at least 5 minutes.
- Free of any serious heart, lung, or leg injuries.
- Free of any electrical implanted devices (cochlear, pacemakers, deep brain stimulator, etc.)
- Are not/do not plan to be pregnant during the duration of the study.



Virtual Reality & Motion Analysis Rehabilitation Laboratory at the University of Rhode Island in the Department of Kinesiology is studying the effect of low-level electrical brain stimulation in stroke patients. The study will combine the use of transcranial direct current stimulation (tDCS) and virtual reality to see if stroke patients with partial paralysis in their legs experience better rehabilitation outcomes than they would with traditional treadmill training. The virtual reality system consists of a treadmill with a screen upon which the participant will view an avatar of themselves walking along a street. Motion capture technology is also incorporated into the system and allows study participants to control the avatar in the virtual environment. The goal is to understand how virtual reality and tDCS can have a positive effect on stroke rehabilitation outcomes.

What does your participation entail?

First, complete a general screening.

If you are interested and are eligible for the study, you will be asked to complete the consent process.

Take part in 13 visits, approximately 16 hours total, over about 1 month taking place at the University of Rhode Island in the Kinesiology Department.

Participants will be compensated for their time and effort.

For more information, call: Shelley Oliveira Barbosa Research Assistant (401) 573-6345

Susan D'Andrea Principal Investigator sedandrea@uri.edu