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STUDY INFORMATION SHEET

Project Title: Effects of Contraction Modality and Unilateral Training Utilizing an Isokinetic Dynamometer on Functional Outcome and Lower Limb Muscular Power Development in Subacute Hemiparetic Individuals

Researchers: Eric Wu, BKin, CSEP-CEP; Paul Bruno, DC, PhD

Introduction

You are being asked to take part in a research study investigating neuromuscular changes after a **four week** long lower limb focused resistance training program in a subacute (3-6 months post initial stroke) hemiparetic population. Before you decide whether or not to take part, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully and ask questions of the researchers if there is anything that is not clear or if you would like more information.

What is Required of Me if I Take Part?

Your participation involves two testing sessions (**~90 minutes/session**) and eight training sessions (**~60 minutes/session**) over four weeks (**11 total hours of commitment**). In the testing sessions, your functional status will be assessed through several clinical tests and two exercise protocols (~10-15 minutes) on a special machine (isokinetic dynamometer) to evaluate both the strength and endurance of your leg muscles. During this testing, several small non-invasive sensors will be attached to specific locations on the skin of your thighs using double-sided adhesive tape. In the training sessions, you will perform a series of exercises using the same machine for the muscles the move your hip, knee, and ankle (20-30 minutes).

What are the Benefits of Taking Part in this Study?

The results of this project will provide present clinicians, researchers, and post stroke individuals about another potential rehabilitation option to improve one's functional status post stroke.

Do I Have to Take Part?

Participation is completely voluntary and there is no penalty for deciding not to participate. If you do decide to participate, you may keep this information sheet and will be asked to sign a consent form. Also, if you do decide to participate, you are free to withdraw at any time and without giving a reason. You may also withdraw from the study at any point prior to the dissemination of the study findings (e.g., publications, presentations), which is estimated to begin in January 2020, by contacting the primary investigator.

What are the Risks of Taking Part in this Study?

You will be engaging in high-intensity resistance exercise. Although the protocols are based on the voluntary effort of the individual performing the exercise as no external load is used, you may experience temporary fatigue during or immediately following exercise, and possible muscle soreness 24-72 hours afterward. There is also a risk of musculoskeletal injury while performing the exercise (e.g., strains, sprains), and a very small chance of more serious injury (e.g., fracture, tendon rupture).

To ensure that the muscle recordings are of a high quality, your skin will be prepared before the sensors are applied. This will consist of shaving a small area of skin (if necessary), light abrasion, and the use of an alcohol swab that may cause slight temporary discomfort. Additionally, since the adhesive tape that will be used to attach the sensors is quite sticky, you may notice mild local discomfort during their removal and small red marks on your skin afterward. If either of these occurs, they normally go away in a short time. Please inform the researchers if you have any known reactions to adhesive tape (e.g., rash, itchiness). If such a reaction occurs and persists for more than 24-48 hours, you are advised to contact the researchers and seek a medical assessment.

Who Has Reviewed this Study?

The ethics for this study have been reviewed and approved by the Research Ethics Board of the University of Regina.

Contact Information for Further Queries:

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