Myosuit-assisted cognitive-motor training on the Dividat Senso

Background

Mobility and independence are key determinants for quality of life. Mobility may be affected due to natural reductions in physical capacity, due to injuries, such as spinal cord injuries, or diseases, such as muscle pathologies. Older adults and patients with muscle weakness can highly benefit from cognitive-motor training focusing on executive functions, as well as technology that provides mobility assistance and helps them overcome the losses in physical capacity. The Dividat Senso is a training and testing system connecting cognitive challenges and rapid goal directed stepping, and weight shifts in order to prevent patients and older adults from falling.

The Myosuit, a new device designed to assist in activities of daily living that include sitting transfers, standing, walking, and negotiating stairs, will be combined with cognitive-motor training on the Dividat Senso. With these combined products people with mobility problems and prone to falling can experience a challenging, effective and motivating training.

The aim of the project

The goal of the present project is to evaluate the usability, acceptance, and the technical functions of the Myosuit with older adults with muscular weakness in senior living facilities or geriatric hospitals. It is well known that older adults should perform cognitive and motor training at the same time, preferably in a standing position, to improve walking function. However, people with serious muscular weakness dependent on a wheelchair and not able to stand for more than 30 seconds, so far cannot profit from an effective cognitive-motor training on the Dividat Senso. With the Myosuit, the support and safety of these people can be warranted.

Your tasks

- Get used to the training and measuring methods on the Dividat Senso
- Get used to the Myosuit technology
- Carrying out and evaluating cognitive and motor assessments
- Supervision and monitoring of cognitive-motor and Myosuit-supported trainings
- Other business-related tasks in combination with the cognitive-motor training concept

Project start: mid of August 2019, or by arrangement

Application to:
Dividat AG
Eva van het Reve
Dr. Sc. ETH in Human Movement Sciences
eva@dividat.ch
044 586 88 34