

Retraining Walking after Incomplete Spinal Cord Injury

Participants needed for University of Alberta “Retraining Walking after Incomplete Spinal Cord Injury” research project.

The Centre for Ambulatory Rehabilitation, Research and Education (CARRE) is a research translational facility at the University of Alberta. We are recruiting people with an incomplete spinal cord injury for a project on the retraining of walking. The project focuses on two types of training: over-ground and on the treadmill. CARRE has received numerous inquiries from the readers of Spinal Columns and looks forward to hearing from more potential participants!

Who qualifies? Candidates will be screened to identify those who fit the criteria for the study. Screening takes about one hour. In general, we are interested in people who have some remaining ability to move their legs, and with no major illness that could affect their walking.

Training method. The training consists of two phases: precision and endurance. In precision training, participants will walk over ground, and learn to step over obstacles of increasing height, and step on to targets of increasing difficulty. In endurance training, participants will walk on the treadmill and aim to walk for as long and as far as possible. If needed, body-weight can be partially supported by a harness during the endurance phase. A physical therapist supervises all training.

Time commitment. The training is done five days/week, for approximately one hour/day. Each type of training will take two months to complete, with a two month break between the two types of training. Prior to the first phase of training, research tests will be done, which include some clinical and physiological tests. These same tests will be repeated after each phase of training, and during a follow-up period of two months after all training is complete.

Costs. Participation is free of charge, except for your own transportation. Parking charges will be reimbursed. Financial assistance may be available for participants from out-of-town.

Benefits. Not everyone is suited for this type of training and not everyone will benefit. Those who have benefited have made impressive gains. Some people who were already able to walk were able to walk faster and better after training. Others who were not able to walk were able to gain some walking ability with the use of a walker or crutches. Your participation will help us find out what type of training is most beneficial and what changes in the nervous system are responsible for the improvements. These findings will help improve the training methods for restoring walking in the future.

If you are interested in participating, please contact Katelyn Pope or Kelly Brunton at (780) 492-4858 or (780) 492-2258 or email katelyn.pope@ualberta.ca or kelly.brunton@ualberta.ca