

ABSTRACT FROM THE STAR RESEARCH GRANTS AWARDED (2009)

Title: 'Strength for Task Training' to optimise locomotor function following stroke: A pilot study

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Walking is a highly valued skill, and is important for community participation and quality of life for people with stroke. Leg strength is strongly correlated with walking ability, yet when strength training is used with people who have stroke there are no improvements in walking ability. Whilst motor skill training studies show a modest improvement in walking, gains remain very limited. Recent evidence suggests *strength training followed immediately by practice of a specific motor skill* may give better results. We will use a mixed method; pilot randomised controlled trial to determine if combined strength training and motor skill training has potential to lead to greater improvements in participation, locomotor function and neural plasticity than either strength training or motor skill training alone, for people with stroke. In addition, we will consider the barriers and facilitators to, and the individual cost-benefit of, participation in the intervention.