

## Exercise and cognition

### **The effect of resistance training on cognitive function, cortical plasticity and falls risk in older women aged 65 to 75 years: A 1 year randomized controlled trial.**

#### **Project Goals - What are we doing?**

We will ascertain whether a one-year, twice-weekly resistance training [program](#) significantly ameliorates cognitive performance of executive-controlled processes in community-dwelling, cognitively-intact women aged 65 to 75 years old compared with a one-year, twice-weekly stretch and relax program.

#### **Research Outcomes - What will be achieved?**

The results of this study will help to define what types of exercise should be "prescribed" for at-risk, older adults to enhance cognitive function and to decrease the risk of falling.

#### **Background - Why is this research important?**

According to the 1994 Canadian Study of Health and Aging, cognitive impairment of all types increases with age and affects 65% of those Canadians aged 85 years and older. Falls are the most frequent cause of injury-related morbidity and mortality among older people. Cognitive impairment is a leading fall risk factor. Approximately 60% of older adults with cognitive impairment, with or without dementia, fall annually; this incidence is approximately twice that of cognitively normal peers. The cognitively impaired older faller is also at increased risk of major injury such as fracture. Thus, interventions that either prevent the onset of cognitive impairment or prevent further cognitive decline in the aging population are likely to reduce falls and fall-related fractures. Recent evidence suggests physical activity, specifically cardiovascular fitness training (CVT), has benefits for cognition in older adults. However, few studies to date have examined the effect of other types of exercises, such as resistance training on cognitive function in older adults.

## Participate

### **[The Effect of Resistance Training on Cognitive Function, Cortical Plasticity and Falls Risk Å in Older Women Aged 65 to 75 Years: A 1 Year Randomized Controlled Trial.](#)**

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