Physiotherapy Works for Falls & Frailty

Physiotherapy reduces falls, addresses frailty and restores independence.

Risks of a fall
A fall is an event that results in a person coming to rest unintentionally on the ground or floor or other lower level. Over 400 risk factors leading to falling have been identified including lack of physical activity resulting in loss of muscle tone, decreased bone mass, poor balance, and reduced flexibility; impaired vision, medications, disease including Parkinson's, dementia, stroke and arthritis, surgery, and environmental hazards. The risk of falls and associated complications rise steadily with age and can be a marker of increasing frailty. Frailty is not clearly defined but is widely accepted to include a combination of weight loss, fatigue, reduced grip strength, diminished physical activity or slowed gait associated with increased risk of falls, hospitalization, loss of mobility and independence, increasing disability and death.

Physiotherapy
Physiotherapists work with older adults in interdisciplinary teams and with other agencies in community, hospital and care settings often as an integral part of local falls care pathways. They have specialist skills in assessment and re-ablement and provide evidence-based exercise, education and advice programs aimed to prevent falls, improve balance, increase self confidence, reduce fear of falling and promote active and healthy lifestyles. Physiotherapy led group exercise programs have been shown to be effective and to reduce falls by 29% and the risk of falling by 15% and individual exercise programs by 32% and 22% respectively.

Half the people who fall will fall again in 12 months.
Community-based falls prevention programs targeting older adults particularly older women, can be highly cost effective with the value of benefits from reduced hospital admission significantly exceeding cost of intervention.\(^{(5)}\) For community living older adults tailored exercise programs delivered as part of a multidisciplinary co-ordinated intervention reduced the rate of falls by 31% and the risk of falling by 27%.\(^{(6)}\) Programs delivering 50+ hours of exercise have been shown to be more effective (23% reduction in rate of falls) than those with less than 50 hours (7% reduction) and programs of 2 hours per week for 6 months are recommended.\(^{(7)}\)

Up to half of non-injured fallers are unable to get up following a fall; physiotherapists teach people how to get up from the ground safely, reducing the risks associated with long lies including pressure sores, hospital admission and moving into long term care.\(^{(8)}\) Physiotherapists lead falls clinics providing comprehensive assessment, identifying underlying pathologies (such as osteoporosis), signposting to other specialist services and offering individual advice and support.

There is a need for more research into frailty but two systematic reviews suggested that physiotherapy had a positive effect sustained for 12 months in reducing systematic reviews suggested that physiotherapy had a positive effect sustained for 12 months in reducing disability in older adults with moderate frailty.\(^{(9)(10)}\)

References

Acknowledgement Adapted and used with permission of the Chartered Society of Physiotherapy.

CASE STUDY

The FallProof™ program offered at the Calgary Fall Prevention Clinic is a multidimensional balance and mobility program for seniors living in the community who are at moderate to high risk to fall. The program takes participants through exercises that begin in sitting and progress to standing and walking, and are tied directly to their real life function and needs. Outcome measures, including client satisfaction, demonstrate significant individual improvement for the majority of clients in the program.

Size of the problem

• 1 in 3 Canadians over 65 will fall every year.\(^{(11)}\)
• In 2011, 8,700 Albertans were hospitalized after a fall.\(^{(12)}\)
• Falls are a leading cause of mortality in seniors.\(^{(11)(12)}\)

In Alberta on average, over 100 seniors die every year as a result of a fall.\(^{(12)}\)
• 1/3 of all seniors hospitalized after a fall sustain a hip fracture and may be discharged to continuing care.\(^{(11)}\)

Costs

• Falls cost Canada more than any other injury. In 2010, falls cost over $6 billion (2010) annually.\(^{(13)}\)
• In Alberta, cost of fall-related hospital admissions for seniors in 2011 was over $160,000,000.\(^{(12)}\)

Physiotherapy Works
Falls & Frailty is an evidence-based briefing from Physiotherapy Alberta - College + Association
www.physiotherapyalberta.ca
780-438-0338
info@physiotherapyalberta.ca