

Osteoporosis & Physiotherapy Intervention

Physiotherapists have a major role in preventing osteoporotic fractures in both primary and secondary prevention levels.

Physiotherapists are involved in a wide range of therapies relating to both the prevention and treatment of osteoporosis (Swanenburg *et al*, 2003).

Our main goal is to reduce the risk of falling in elderly adults with osteoporosis as it has been proven to significantly decrease fracture incidence (Swanenburg *et al*, 2003).

Our team of physiotherapists excel at exercise prescription for person's with osteoporosis and are guaranteed to prescribe you with a well-balanced intervention program aimed at reducing fractures due to falls and improving skeletal health.



Falls Prevention

Muscle Strength

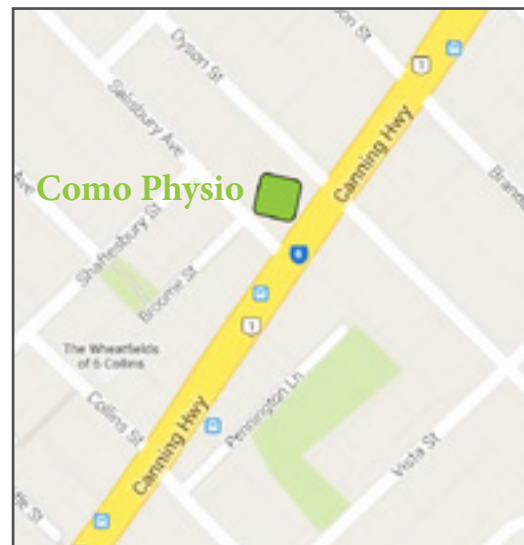
Hydrotherapy

Headaches & Neck Pain

Lower Back Pain

Post Surgical Rehabilitation

General Fitness & Wellbeing



FACT SHEET

**Positive steps
to falls prevention
and improving balance.**



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Osteoporosis

Osteoporosis is an increasing public health problem which can result in fractures and ultimately a reduction in your health-related quality of life (Swanenburg et al, 2003).

Osteoporosis & Exercise

Studies indicate that a lack of physical activity is an important risk factor for osteoporotic fractures (Mosekilde, 1995). Exercise (a form of loading bone tissue) is essential for maintaining bone mass and preventing osteoporotic fractures (Mosekilde, 1995) as well as aiding recovery from fractures. Research clearly shows that exercise can increase bone mass in osteoporotic patients and maintain bone mass, or reduce bone mass loss in elderly individuals (Mosekilde, 1995).

Exercise has important extra-skeletal effects that include:

- **increasing muscle strength**
- **preventing heart disease**
- **and in some studies has been shown to reduce the risk of cancer**

An exercise programs that includes muscle strengthening and balance control, will reduce the risks of falling and increase the health-related quality of life of an adult with osteoporosis.

Falls Prevention

Falls and the fear of falling are major health concerns amongst older adults (Beauvais & Beauvais, 2014). In elderly adults falls can cause a loss of functional capacity and independence (Ungar et al, 2013). Falls are defined as an accidental event in which a person's centre of gravity is lost and an ineffective effort/no effort is made to restore balance (Ungar et al, 2013).

Walking problems and lower leg muscle weakness have been shown to contribute to 10 – 25% of falls (Ungar et al, 2013). This is because lower leg muscle weakness leads to significant postural instability. Additionally trunk, abdominal and shoulder muscle weakness can reduce the compensatory movements of the arms, and therefore affect your ability to save yourself from falling (Ungar et al 2013).

Several interventions are promoted internationally to prevent falls (Ungar et al 2013). These include:

- **modification of environmental hazards**
- **training paths**
- **use of hip protectors, sticks and walkers**
- **balance exercises**
- **keeping active**

Falls considerably increase the risk of fractures and pneumonia, dehydration and DVTs as a consequence of immobilization and the inability to get up of the ground (Ungar et al, 2013).

Falls Prevention through Balance Exercises

It is estimated that 34% of persons aged 65 years and over will experience at least one fall a year (Ungar et al 2013). As the prevalence of falls increases with age, prevention really is the best medicine. Balance exercises and physical activity have proven benefits when preventing falls (Ungar et al 2013).



Balance & Osteoporosis Classes

Our classes aim to reduce the risks of falling through a combination of balance exercises and education about footwear and home safety.

As walking problems and muscle weakness are responsible for 10-25% of falls (Ungar et al 2013), our Balance and Osteoporosis classes include a variety of lower leg strengthening exercises and balance challenges. We try to accommodate for at-home barriers, such as stepping over thresholds, change in surfaces and small steps and prepare you for this with a variety of targeted exercises.