

The Dizziness, Balance and Vertigo Report

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Kanata Orthopaedic
Physiotherapy Clinic



Spotlight on
Falls Prevention

Vestibular Disorders and Falls

- ◆ One-third of people aged 65 years and over typically fall once or more each year
- ◆ Falls are the most common cause of injury and the 6th leading cause of death for seniors
- ◆ Canadians spend about \$3 billion a year on seniors' fall injuries

The majority of individuals over 70 years of age report problems of dizziness and imbalance; and balance-related falls account for more than one-half of the accidental deaths in the elderly. Furthermore, in a sample of persons age 65-75, one-third reported that dizziness and imbalance degraded the quality of their lives.

Falls and falls prevention is a multi-faceted issue, especially in seniors, which can involve many factors, including:

- ✓ Age related or pathological changes to the musculo-skeletal system
- ✓ Age related or pathological changes to the vestibular, visual and proprioceptive systems
- ✓ Medication related issues
- ✓ Cognitive decline issues
- ✓ Environmental, social and demographic issues

Recent Research Findings on Falls

Vestibular Dysfunction and Falls (Reference: Agrawal Y et al. Arch Intern Med 2009; 169(10):938-944)

Over 5000 entries from the US National Health and Nutrition Examination Survey were analyzed to determine the relationship between vestibular dysfunction and the risk of falling. It was found that individuals with an active vestibular dysfunction were eight times more likely to fall than control groups of any age. Furthermore, individuals with subclinical vestibular disorders were still at a significantly higher falls risk.

Prescription Drugs and Falls (Reference: Woolcott JC et al. Arch Intern Med 2009;169:1952-1960)

This meta analysis of 22 studies incorporated data on 9 classes of drugs, and found a significant increase in falls risk associated with 3 widely used classes of drugs (sedatives and hypnotics, antidepressants and benzodiazepines). It is noted that individuals with chronic vestibular disorders are often prescribed one or combinations of medications in these 3 classes.

Foot wear and Falls (Reference: Horgan NF et al. Age Ageing 2009;38:62-67)

This study set out to examine the relationship between foot wear and falls in seniors. The results showed that shoe characteristics did not appear to change balance ability, but that balance with personal shoes was significantly better than without shoes. A factor as simple as choice of footwear is emphasized as an important environmental factor in preventing falls in seniors.

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Vestibular Rehabilitation and Reducing Falls

There is a vast array of research supporting the role of specifically tailored exercise prescription in the prevention of falls for individuals with vestibular disorders and for seniors.

Depending on health history and diagnosis, a comprehensive falls prevention program for individuals at risk can include:

- ♦ Education
- ♦ Strengthening exercises particularly for the lower extremities
- ♦ Specific static and dynamic balance exercises
- ♦ Specific vestibular adaptation/substitution exercises if appropriate

A physiotherapist trained in the assessment and treatment of vestibular disorders is an ideal clinician to assist at risk individuals in setting up an appropriate falls prevention exercise program.

Vestibular Rehabilitation can be provided by your Physiotherapist at
Kanata Orthopaedic Physiotherapy Clinic



Find the balance in your life

For more information or to book an appointment, please contact



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