# Research Studies That Associate Dizziness and Falls

**Author: Melissa Bloom, PT, DPT** 

# **Fact Sheet**

Falls can be a common problem in persons with dizziness, especially with an underlying vestibular dysfunction. Many studies have examined risk factors for falls in the adult population.<sup>1-7</sup> The Table depicts the significant association seen between vestibular dysfunction, dizziness, and falling.

# Produced by



## A Special Interest Group of



# Contact us:

ANPT
5841 Cedar Lake Rd S.
Ste 204
Minneapolis, MN 55416
Phone: 952.646.2038
Fax: 952.545.6073
info@neuropt.org
www.neuropt.org

a component of



Study Design & Objective Summary	Outcome Summary
Cross sectional surveys and a measurement of vestibular function were used to determine the effects of vestibular dysfunction and dizziness on falls	Participants with a vestibular dysfunction and self reported dizziness were 12 times more likely to fall. Participants with vestibular dysfunction alone were also shown be at a higher risk for falling. <sup>1</sup>
Prospective cohort study to determine intrinsic predictors of falls in community dwelling subjects	An increased risk of falls and recurrent falls were seen in subjects reporting dizziness. <sup>2</sup>
Prospective study examined intrinsic risk factors for falls and recurring falls	Dizziness upon standing was associated with falls and recurrent falls. <sup>3</sup>
Prospective clinical study examined the incidence of falls in patients with vestibular dysfunction	Patients with bilateral vestibular dysfunction were shown to have a significant increase in falls when compared to the general population. <sup>4</sup>
Transversal descriptive analytic study was used to examine the cause of falls in the elderly	Dizziness and vertigo were found to be the leading cause of falls. Researchers also found that individuals who fell because of dizziness and vertigo were more likely to fall two or more times, vs. experience a single fall. <sup>5</sup>
Population-based prospective cohort study aimed to determine adverse effects of chronic dizziness	People who were chronically dizzy were found to be at an increased risk of falling. <sup>6</sup>
Interviews were used to determine fall frequency and risk factors in community dwelling elderly	Individuals reporting dizziness were found to be twice as likely to fall. <sup>7</sup>

If vestibular dysfunction is the known cause of dizziness, vestibular rehabilitation with a qualified physical therapist can be offered to decrease patient symptoms, increase balance control, and decrease risk for falls. 8-10

#### References:

- 1. Yuri A, Carey JP, Della Santina CC, et al. Disorders of balance and vestibular function in US adults. Arch Intern Med. 2010; 169(10): 938-944.
- 2. Tromp AM, Pluijm SMF, Smit JH, et al. Fall-risk screening test: A prospective study on predictors for falls in community-dwelling elderly. J Clin Epidemiol. 2001; 54:837-844.
- 3. Graafmans WC, Ooms ME, Hofstee MA, et al. Falls in the elderly: a prospective study of risk factors and risk profiles. Am J Epidemiol. 1996; 143(11): 1129-1135.
- 4. Herdman SJ, Blatt P, Schubert MC, et al. Falls in patients with vestibular disorders. Am J Otol. 2000; 21(6): 847-851.
- 5. Gananca FA, Gazzola JM, Aratani MC, et al. Circumstances and consequences of falls in elderly people with vestibular disorder. Rev Bras Otorrinolaringol. 2006; 72(3):388-392.
- 6. Tinetti ME, Williams CS, Gill TM. Health, functional, and psychological outcomes among older persons with chronic dizziness. J Am Geriatr Soc. 2000; 48(4):417-421
- 7. O'Loughlin JL, Robitaille Y, Boivin JF et al. Incidence of and risk factors for falls and injurious falls among the community-dwelling elderly. Am J Epidemiol. 1993; 137(3): 342-354
- 8. Schubert MC, Migilaccio AA, Clendaniel RA, et al. Mechanism of dynamic visual acuity recovery with vestibular rehabilitation. Arch Phys Med Rehabil. 2008; 89(3):500-507
- 9. Herdman SJ, Schubert MC, Tusa RJ. Strategies for balance rehabilitation: fall risk and treatment. Ann N Y Acad Sci. 2001; 942-412.
- 10. Herdman SJ, Blatt PJ, Schubert MC. Vestibular rehabilitation of patients with vestibular hypofunction or with benign paroxysmal positional vertigo. Curr Opin Neurol. 2000;13(1): 39-43.

#### Produced by



### a Special Interest Group of



a component of

