

Research Studies That Associate Dizziness and Falls

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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.¹⁻⁷ The Table depicts the significant association seen between vestibular dysfunction, dizziness, and falling.

Summary Message: Dizziness increases risk of falls, including with injury. Most studies have participants who are older adults.

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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 ¹	Participants (n=5086) with a vestibular dysfunction and self-reported dizziness were 12 times more likely to fall. Participants with vestibular dysfunction alone were also shown to be at a higher risk for falling.
Prospective cohort study to determine intrinsic predictors of falls in community dwelling subjects ²	An increased risk of falls and recurrent falls were seen in participants (n=1285) reporting dizziness.
Population-based prospective cohort study aimed to determine adverse effects of chronic dizziness ³	Participants (n=1087) who were chronically dizzy were found to be at an increased risk of falling.
Interviews were used to determine fall frequency and risk factors in community dwelling elderly ⁴	Participants (n=409) reporting dizziness were found to be twice as likely to fall.
Cross Sectional analysis of the relationship between falls and dizziness in individuals in long term care facilities ⁵	Participants (n=187) in long term care facilities, who reported dizziness on the DHI were significantly more likely to have a history of falls. Participants with a history of falls “were 2.2 times more likely to have some symptoms of dizziness” on the DHI.
Survey study of 79-year-olds in Sweden to investigate the relationship between dizziness, falls, (gait speed and fear of falling) ⁶	Women who reported dizziness have a significantly higher (OR 2.63, p<.0001) risk of falling, but this was not significant among men. <ul style="list-style-type: none"> • 37% of participants who had fallen reported an injury. • 80% of participants who reported ≥ 3 falls also reported dizziness / imbalance.

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<p>Cross sectional analysis of a National Health Interview Survey including the quantification of the relationship between dizziness and falls (with and without injury)⁷</p>	<p>Take-Away: “Dizziness is strongly associated with both an increased tendency to fall and increased injury rate from falls”</p> <ul style="list-style-type: none"> • 34% of individuals who reported dizziness also reported a fall in the past 12 months (compared to 9% of individuals without dizziness). • 45.8% of individuals with dizziness reported an injury associated with the fall, compared to 35.6% of those who fell and denied dizziness.
<p>Prospective clinical study examined the incidence of falls in patients with peripheral vestibular hypofunction⁸</p>	<p>Participants with bilateral vestibular hypofunction (n=45) were shown to have a significant increase in falls when compared to the general population when age was considered.</p>
<p>Transversal descriptive analytic study was used to examine the cause of falls in the elderly who reported chronic dizziness / vertigo (>3 months)⁹</p>	<ul style="list-style-type: none"> • 53% of participants (n=64) reported recurrent falls. • 83% reported the “tendency to fall” • Falls most commonly reported in the morning (52%). Vertigo was the most reported direct cause of falls (25%) • Participants who fell because of dizziness and vertigo were significantly more likely to fall ≥2 times, vs. experience a single fall.

If vestibular dysfunction is the suspected or known cause of dizziness, vestibular rehabilitation with a qualified physical therapist should be offered to decrease patient symptoms, improve balance, and decrease risk for falls.¹⁰⁻¹³

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