

Dizziness, Balance, and Fall Prevention

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1. Why is this so important?
 - a. Falls are one of the biggest preventable and costly medical issues
 - b. Every 20 minutes, someone in U.S. dies from a fall
 - c. 1 out of 5 falls causes a serious injury
 - d. 2.5 million E.R. visits/year, 700k hospitalized, 250k for hip fractures (95%)
 - e. \$34 billion dollars/year in medical costs, mostly Medicare
 - f. We don't work on these things. Causes: lower body weakness, difficulty with walking and balance, use of meds, vision problems
2. What are the 3 components of **balance**?
 - a. Proprioception/balance receptors in joints
 - b. Vision
 - c. Vestibular system- what integrates everything to allow us to function, controlled by the 8th Cranial Nerve called the Vestibulocochlear nerve, susceptible to arthritis just like other parts of our body
 - i. Visual Tracking
 - ii. Full body balance/proprioception
3. Vision Impairment
 - a. 3.3 million people over 40 yrs old (2004), gradually doubled by 2030 due to diabetes, aging population, and other factors
 - b. Decrease or elimination of one of the three main components of balance.
 - c. Have to maximize other systems to compensate
4. How do you know if your balance and vestibular system is working normal?
 - a. Balance
 - i. Single leg balance = 30 seconds
 - ii. Tandem balance (heel to toe) = 30 sec
 - iii. Romberg balance (feet together/arms crossed/eyes open or closed) = 30 sec
 - b. Visual tracking- do you get dizzy or have vertigo with quick eye movements, staying fixed on object, or moving your head?
 - c. Do you get dizzy, have vertigo, feel like you are on a boat, spinning, off balance, or have problems when change positions (getting out of bed)?
5. What can you do to improve your balance, decrease the chances of falling, and be safer?
 - a. Core strengthening/leg strengthening
 - b. Work on your balance
 - c. Work on visual tracking, vision exercises
 - d. Realize that this is essential. Safety measures at home and in community

e. Vestibular and balance rehabilitation performed at Phoenix Physical Therapy