## **Walking Patterns**

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Balance is essential for mobility and performing activities of daily living. The ability to maintain balance during navigation in daily activities is a key component of successful ambulation. Gait and balance impairment have been consistently reported as among the strongest risk factors for falls among community dwelling seniors. Reduced coordination of postural control could lead to poor gait pattern and balance impairment among older people. The vestibular system provides information about the position of the head in space and head movement with respect to gravity and inertial forces. Deterioration in vestibular function can cause feelings of unsteadiness, light headedness, violent spinning sensation (vertigo) or dizziness, all are commonly associated with falling in elderly. In addition to age related effects, pathology of the vestibular system also results in degeneration of vestibular function and associated symptoms for example, benign paroxysmal positional vertigo, Meniere's diseases, and vestibular neuritis. Similar to the somatosensory and visual systems, effects of ageing occur in the vestibular system such as 40% reduction in hair cells for those over the age of 70 and a progressive loss of nerve. Balance retraining and ongoing physical therapy can increase mobility and independence for those with vestibular disorder. Simple home modifications can also help to reduce the number of fall hazards.





