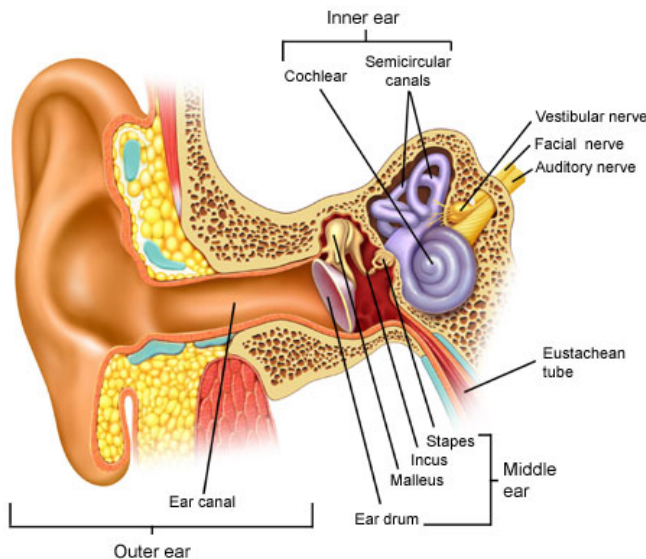


## The Vestibular System, Dizziness and How Physiotherapy Can Help

January 2014 by Eric Marriott

The vestibular system is an essential system for normal functioning of the human body; its primary function is to help maintain our balance and equilibrium. When our reflexes, vestibular system and vision work in harmony we do not even realize they are working.



The vestibular organs are found in the inner ear and are comprised of:

- the semi-circular canals,
- the saccule and
- the utricle.

Together, these structures allow our vestibular system to give our body information about how we are moving and positioned in space.

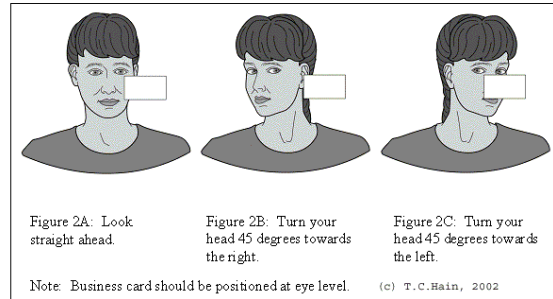
When something in the system is out of sync, however, the



effects are often very noticeable and a very common resulting symptom is dizziness. Dizziness can result for a variety of reasons and from a variety of pathologies however.

One common cause of dizziness, particularly for older adults, is a condition called **Benign Paroxysmal Positional Vertigo or BPPV**. In this condition, dizziness results when crystals or debris from the inner ear becomes dislodged from its normal position and enters one of the semi-circular canals. These crystals will create a sense of movement from one of the canals by moving the normal fluid around the canal. In this instance, the vestibular system is creating false information about movement of the head and there is a discrepancy with what the eyes are seeing; the resulting symptom is dizziness, vertigo, or a sense of the room spinning. BPPV can often be aggravated by rolling over in bed, or moving from a standing position to a lying down position.

Through a thorough assessment, a physiotherapist with training in vestibular rehabilitation can assess the potential causes of your dizziness and suggest a rehabilitation plan. If BPPV is the cause of the dizziness a re-positioning maneuver may be used to attempt to reposition the crystals out of the semi-circular canals. If the symptoms of dizziness are being brought on by a change in the vestibular system due to a vestibular neuritis (infection of the vestibular nerve) or for other reasons, exercises to train eye movements and balance are often used to facilitate habituation to the dizziness symptoms and eventual decrease in the symptoms. Time to full recovery will depend on the condition bringing on the dizziness and the length of time that you have been experiencing the dizziness.



Often, there are other factors that combine together to lead to dizziness, such as cervical spine dysfunction. If neck problems are present, we can also treat any related dysfunctions to further help to resolve your dizziness and improve your function.

If you have any specific questions, or concerns that may relate to dizziness or vestibular problems, please give us a call at 604-983-6616 or [info@body-works.ca](mailto:info@body-works.ca).

Reference:

Herdman, S (2007). Vestibular Rehabilitation: Contemporary Perspectives in Rehabilitation, 3<sup>rd</sup> Edition. Philadelphia, PA: FA Davis Co.

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