Benign Positional Vertigo

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Sources:

- Harrison's Principles of Internal Medicine,
- Bates' Guide to Physical Examination,
- Medscape's E-medicine (emedicine.medscape.com)
- Swartz R, Longwell P. Treatment of Vertigo. American Family Physician. March 15, 2005

Description

Vertigo is an illusory sense of movement of the body or environment, most often a spinning sensation.

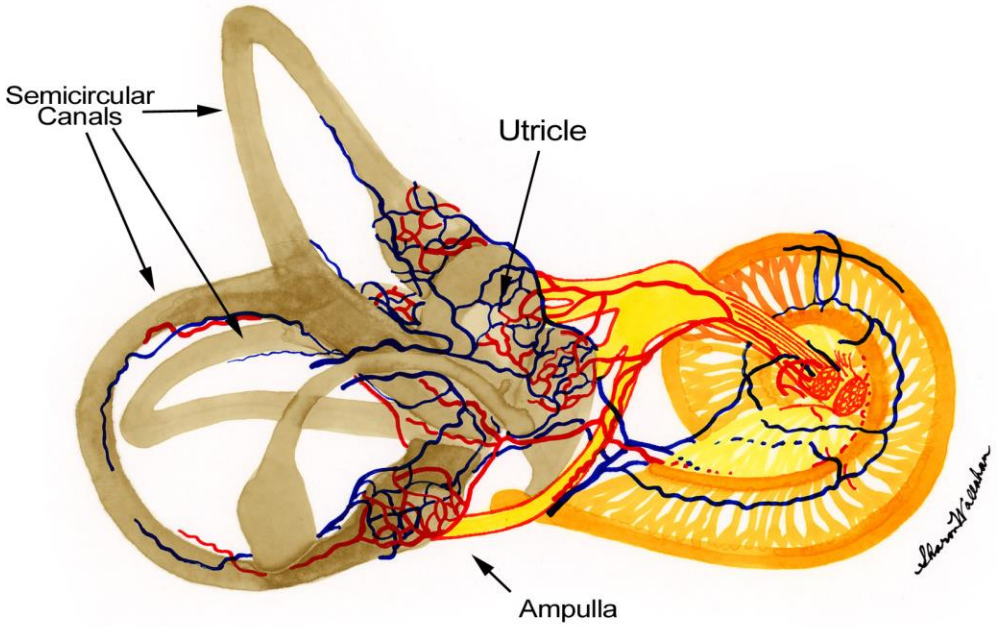
Physiological vertigo occurs in normal individuals subject to unusual movement (e.g. seasickness or following a spin). Pathological vertigo results from a dysfunction of any of the body's three spatial-sensory systems:

- vestibular system
- visual system
- somatosensory system (skin, joints and muscle).

Pathological vertigo may result from central (brainstem) lesions. More commonly it arises from peripheral (vestibular) dysfunction, including:

- Benign Positional Vertigo – brief paroxysmal attacks of vertigo that occur only with certain head movements, e.g. neck extension. Very common form of peripheral vertigo (annual incidence 64 per 100,000)
- Meniere's Disease - tinnitus, vertigo and sensorineural deafness
- Vestibular Neuronitis

Pathophysiology of Benign Positional Vertigo



- BPV is caused by calcium carbonate particles (otoliths) that are inappropriately displaced into the semicircular canals, usually the posterior canal.
- Otoliths--normally attached to hair cells inside the utricle--become displaced by aging, head trauma, or labyrinthine disease.
- Changing head position causes the otoliths to move through the canal, dragging endolymph with them. This movement stimulates the hair cells of the cupula of the affected semicircular canal, causing vertigo.

Treatment of Benign Positional Vertigo

- Medication generally not recommended. Rather head rotation movement, such as the Epley maneuver, is applied.
- Goal of the Epley maneuver is to move the otoliths out of the posterior semicircular canal and back into the utricle where they belong.
- Success rate very high (85-90%).