

Vertigo

Definition of vertigo

- Vertigo is the false sensation that either oneself or the surroundings are moving or rotating.
- This is distinct from other causes of dizziness or light-headedness such as postural hypotension, arrhythmias, epilepsy, tumours, anaemia, etc.

Causes of vertigo

- **Peripheral** (i.e. ear) – vertigo is ROTATORY in nature
 - Benign Paroxysmal Positional Vertigo
 - BPPV: due to dislodged otoliths in semicircular canals
 - Meniere's disease
 - Labyrinthitis/vestibular neuronitis
 - Cholesteatoma
 - Vestibular schwannoma
- **Central** (i.e. brain)
 - Cerebrovascular events
 - Migraine
 - MS

History in vertigo

- This can be extremely difficult! Initially let the patient talk and they will be very grateful for the opportunity as vertigo can be very debilitating indeed. Then ask about:
- First episode
 - Before
 - Prodrome
 - What were they doing
 - Head position at time
 - Head movement
 - During
 - Neuro
 - Loss of consciousness/collapse; headaches; visual changes
 - Numbness; tingling; weakness
 - Cardiac
 - Chest pain; palpitations; shortness of breath
 - After
 - Resolution speed; post ictal features
- General
 - Frequency and severity
 - Last episode
 - Precipitating features
 - Associated features
 - Hearing loss; tinnitus; otorrhoea; otalgia; trauma

Examination in vertigo

- Gait
- Ears (also see otoscopy)
- Cranial nerves
 - Especially V, VII, VIII and eye movements
- Cerebellar tests
 - Including nystagmus, past pointing, and ataxic gait
 - Fistula test, Romberg's test, Unterberger's test, Halmagyi Head thrust, Dix-Hallpike test (see links below)

Investigation of vertigo

- Pure tone audiogram (PTA)
- Vestibular function tests
- MRI

ENT differentials of vertigo (classic presenting symptoms)

- BPPV
 - Positional, lasts for seconds but can feel unsteady for longer, classically turning over in bed, nauseated and vomiting, perhaps recent URTI/head trauma, Dix Hallpike positive
- Vestibular neuronitis/labyrinthitis
 - Lasts for days, single severe attack, often wake up with it, unwell for a week with possible URTI, normal hearing and PTA
- Menieres
 - Two or more episodes, aural fullness/tinnitus, fluctuating hearing loss (documented on PTA), other causes excluded
- Cholesteatoma
 - Intermittent vertigo, hearing loss, discharging ear, keratin in attic
- Acoustic neuroma
 - Unilateral hearing loss, cranial nerve palsies, vertigo
- Rarer causes
 - Superior semicircular canal dehiscence, complicated AOM, trauma to temporal bone

Management of vertigo

- For management see individual conditions.

Relevant vertigo videos:

- Fistula test - <https://www.youtube.com/watch?v=4gEM17yTI5k>
- Romberg test - <https://www.youtube.com/watch?v=YBQNwvWgREU>
- Unterberger test - https://www.youtube.com/watch?v=XGUNTS_Z2UM

- Halmagyi head thrust - <https://www.youtube.com/watch?v=CZXDNLLGG8k>
- Dix Hallpike - <https://www.youtube.com/watch?v=vRpwf2mI3SU>