

## ENT

### VERTIGO

Dizziness is a non-specific term that may refer to vertigo, presyncope or an altered sense of balance – it is important to determine exactly what the patient means. This can be difficult and the diagnosis remains uncertain in approximately 10% even after investigation.

**Vertigo** is the illusion of movement, either of the self or the environment. This may take the form of spinning, tilting or swaying. It is always worse with motion. It can be distinguished from postural presyncope as it gets worse with manoeuvres which do not affect blood pressure like movements of the head or rolling over in bed.

**Presyncope** is the prodrome that occurs prior to syncope. The patient may feel like they are going to faint and have visual blurring/vision closing in/stars in vision. Onlookers may observe pallor. Other symptoms may be present depending on the cause.

**Disequilibrium** is a sense of imbalance that occurs primarily when walking. The aetiology is varied including peripheral neuropathy, musculoskeletal disorders, vestibular disorders and cerebellar disorders.

#### Vertigo – Central vs Peripheral

Central and peripheral causes have distinctive features, though there is some overlap:

	Peripheral	Central
<b>Nystagmus: direction</b>	Unidirectional	May reverse direction
<b>Nystagmus: type</b>	Horizontal +/- torsional (never vertical/purely torsional)	Any direction
<b>Other neurology</b>	Absent	May be present
<b>Postural instability</b>	Unidirectional instability (eg. leans to side), walking preserved	Severe instability, often falls when walking
<b>Deafness/tinnitus</b>	May be present	Absent

#### Notes on Nystagmus

- Peripheral nystagmus is either horizontal or horizontal with a torsional component.
- Peripheral nystagmus is unidirectional (the fast phase is always away from the side of the lesion).
- Central nystagmus can be in any direction and may change direction (the fast phase may change depending on the direction in which the patient looks).

## Clinical Features of Common Causes of Vertigo

	Time Course	Clinical Setting	Neurological Sx	Auditory Sx
<b>BPPV</b>	Recurrent, lasts seconds	With head movement	None	None
<b>Vestibular neuritis</b>	Prolonged, severe acute episode	Preceded by viral syndrome	None	Usually none
<b>Meniere's</b>	Recurrent episodes lasting minutes-hours	Spontaneous onset	None	Ear fullness, pain, tinnitus, unilateral hearing loss
<b>Vestibular migraine</b>	Recurrent episodes lasting minutes-hours	History of migraine	Headache, migrainous symptoms	Usually none
<b>Vertebrobasilar TIA</b>	Single or recurrent episodes lasting mins-hours	Vascular risk factors or C-spine trauma	Other brainstem symptoms and signs	Usually none
<b>Brainstem infarct</b>	Sudden onset lasting days-weeks	Vascular risk factors or C-spine trauma	Other brainstem symptoms and signs	Usually none
<b>Cerebellar infarct</b>	Sudden-onset lasting days to weeks	Vascular risk factors	Gait impairment, altered coordination, dysphagia	None

In summary, the most important features indicating a central cause of vertigo are:

- Nystagmus which changes direction or is purely torsional/vertical.
- The presence of focal neurology.
- The inability to walk without falling.

### Management of Peripheral Vertigo

- Usually suitable for outpatient Rx.
- Prochlorperazine.
- Epley manoeuvre may cure BPPV.
- Advise to return if new neurological symptoms develop.

### Management of Central Vertigo

- Refer to medicine.
- Inpatient MRI is the best imaging for the posterior fossa.
- CT should be performed if an intracranial bleed is suspected.