

Dizziness (vertigo)

Mechanism: Vertigo (an illusion of motion) reflects asymmetry within the peripheral (labyrinth, vestibular nerve) or central (brainstem/cerebellum) vestibular system. Dizziness without vertigo reflects presyncope (global cerebral hypoperfusion) vs. balance disorder (multisensory/polyneuropathy) or psychological/functional causes (phobic dizziness).

Syndromes:

A) Episodic movement-provoked: Benign paroxysmal positional vertigo (BPPV) - sudden vertigo associated with head rotation in a certain direction, subsiding at rest.

B) Acute spontaneous:

- **Harmonic vestibular syndrome** - tonic deviations in the direction opposite to the fast component of nystagmus
- **Vestibular migraine** - vertigo followed by a migrainous headache
- **Central vestibular syndrome** - tonic deviations and nystagmus of variable or identical direction

C) Chronic: Persistent postural-perceptual dizziness = PPPD (functional) - persistent, positionally-accentuated dizziness.

Red flags:

Diplopia, dysarthria, ataxia; HINTS with central nystagmus → stroke;
Vertigo following a head injury → craniotrauma
Sudden hearing loss - acute labyrinthitis
Feeling "about to faint" sometimes described as dizziness - hemodynamic instability
Pathological ECG - always necessary to exclude a cardiac cause
Child: subacute/progressive vertigo/ataxia - exclude posterior fossa tumor.

Examination:

- 1) Timing & triggers (TiTrATE - categorize according to duration and provoking mechanisms)
- 2) HINTS (Head Impulse test + Nystagmus assessment + Skew deviation);
- 3) CT / CT angiography of the brain; MRI of the brain (in the absence of an explanatory finding); video-oculography.

Treatment:

BPPV: Epley/Semont maneuver (80–98% efficacy).

Vestibular neuritis: vestibular rehabilitation; short-term suppressants

Ménière disease: diet, diuretics, betahistine, intratympanic therapy

Vestibular migraine: prophylaxis + trigger management

PPPD: vestibular rehabilitation, SSRI/SNRI, CBT

Central/ischemic: acute stroke pathway

Children: treatment of post-infectious cerebellitis, urgent oncology for tumors, addressing intoxications, migraines, otologic, and nutritional causes.

Onset	Children	Adults
Acute	vestibular neuronitis/labyrinthitis, post-infectious cerebellitis (38%), post-traumatic vertigo, intoxication (14%)	BPPV (frequent 17–42%), vestibular neuronitis, VB stroke, vestibular migraine (27% under age 35)
Subacute	benign paroxysmal vertigo, vestibular migraine, vestibular paroxysmia, orthostatic dysregulation	Ménière disease, vestibular migraine, BPPV, TIA, autoimmune inner ear disease
Chronic / Chronická	PPPD, anxiety, somatization, congenital vestibular hypofunction	PPPD (21–26%), bilateral vestibular hypofunction, chronic vestibular migraine, presbyvestibulopathy

Explanatory notes: TIA - transient ischemic attack.