BPPV
CHEAT SHEET

Benign Paroxysmal Positional Vertigo

ED Diagnosis & Repositioning

▸ BPPV at a Glance

Most common cause of vertigo worldwide. Caused by displaced otoconia (calcium crystite crystals) in semicircular canals. Hallmark: brief episodes (<1 min) of vertigo triggered by head position change. Posterior canal BPPV = 85–90% of cases.

Diagnostic Criteria & Differential

Feature	BPPV	Central Positional Vertigo
Nystagmus latency	2–20 sec after head positioning	Immediate or no latency
Nystagmus duration	Less than 1 minute; fatigues with repetition	Persistent (over 1 min); does not fatigue
Nystagmus direction	Torsional-upbeat (posterior canal)	Pure vertical, horizontal, or direction-changing
Symptoms	Vertigo only with position change; resolves when still	May persist; headache, neurological signs
Gait	Mildly impaired between episodes	Severely impaired — cannot stand

Dix-Hallpike Test — Posterior Canal BPPV

Step	Technique	Positive Result
1 — Position	Sit patient upright, turn head 45° to tested side	—
2 — Lay back	Rapidly lay patient back so head hangs 30° below horizontal	Wait up to 30 seconds
3 — Observe	Watch eyes for nystagmus (upbeating + torsional toward affected ear)	Onset after 2–20 sec latency
4 — Duration	Nystagmus resolves within 60 seconds; ask about vertigo	Vertigo matches nystagmus; fatigues on repeat
5 — Return	Sit patient up slowly; nystagmus may reverse briefly	Brief reverse nystagmus on return to sitting

Epley Manoeuvre — Right Posterior Canal

Step	Position	Duration
1	Dix-Hallpike: right ear down, head 45° right, hanging 30° below horizontal	30–60 sec
2	Rotate head 90° to left (nose up, head now 45° left)	30–60 sec
3	Roll body and head together a further 90° left (patient faces floor)	30–60 sec
4	Sit patient up slowly, head maintained chin-down slightly	Slow (15 sec)

▸ Post-Epley instructions

No specific post-manoeuvre restrictions required (evidence does not support sleep-upright advice).
Success rate ~80% first attempt; offer repeat or refer vestibular physio if persists.
Warn: temporary worsening of vertigo during and immediately after the manoeuvre is normal.

Benign Paroxysmal Positional Vertigo — *continued*

Other Canal BPPV — Recognition & Treatment

Canal	Test	Nystagmus	Treatment
Posterior (85–90%)	Dix-Hallpike	Upbeat + torsional toward affected ear	Epley manoeuvre
Horizontal (10%)	Supine Roll (bow-and-lean)	Horizontal — geotropic (canalith) or apogeotropic (cupulolith)	Barbecue roll (Log Roll) — Gufoni manoeuvre
Anterior (rare)	Dix-Hallpike	Downbeat + torsional	Modified Epley — refer if uncertain

Horizontal Canal BPPV — Supine Roll Test

Step	Technique
1	Lay patient supine with head flat
2	Rapidly rotate head 90° to right — observe nystagmus direction and intensity
3	Return to neutral — wait 1 min
4	Rapidly rotate head 90° to left — observe nystagmus
5	Affected ear = side with more intense geotropic (toward ground) nystagmus for canalith type

When to Suspect Central Positional Vertigo

▸ Red flags requiring imaging

Purely downbeat nystagmus in any position — cerebellar pathology until excluded.
No latency, no fatigue on repeat testing.
Neurological signs: diplopia, dysarthria, ataxia, facial numbness.
Headache concurrent with positional vertigo.
Dix-Hallpike positive but nystagmus persists over 1 minute.
Failed Epley x2 — consider referral before discharge.

Medication — Adjuncts Only

Drug	Role	Note
Prochlorperazine 12.5 mg IM / 5 mg oral	Acute nausea / vomiting relief	NOT a treatment for BPPV; does not resolve canal debris
Ondansetron 4 mg oral/sublingual	Antiemetic alternative	Preferred if sedation is a concern
Vestibular suppressants (meclizine)	Avoid prolonged use	Suppress symptoms but delay central compensation

Disposition

Outcome	Action
Epley successful — symptoms resolved	Discharge; GP or vestibular physio follow-up; patient education leaflet
Epley partially successful	Repeat manoeuvre; discharge if walking safe; vestibular physio referral
Horizontal canal BPPV identified	Attempt barbecue roll; vestibular physio referral if not resolved
Central features present	Admit / imaging; do not discharge before central cause excluded
Unable to tolerate manoeuvre	Symptomatic management; urgent vestibular physio referral