

Table 7. Selected Methods to Determine the Affected Ear in Lateral Canal BPPV.

Technique or Circumstance	Conclusion regarding the Affected Ear
Supine roll testing (Figure 2) reveals a direction-changing nystagmus that is either geotropic (beating toward the ground) or apogeotropic (beating away from the ground) and is distinctly stronger on one side than the other. ^{33,58,78,81}	<i>Geotropic form:</i> the side with the strongest nystagmus is the affected ear. <i>Apogeotropic form:</i> the side opposite the strongest nystagmus is the affected ear.
Posterior canal BPPV torsional upbeat nystagmus converts to strongly horizontal nystagmus (lateral canal BPPV) during positioning. ³³	Same ear as was affected by the posterior semicircular canal BPPV.
Patient is moved from sitting to straight supine facing up, which results in transient horizontal nystagmus (lying-down nystagmus). ^{58,78,81,194}	<i>Geotropic:</i> Nystagmus beats away from the affected ear. <i>Apogeotropic:</i> Nystagmus beats toward the affected ear.
In the straight supine position, the patient sits up, and the head bends down as a “head pitch test” (head-bending nystagmus). ^{83,194,198}	<i>Geotropic:</i> Nystagmus usually beats toward the affected ear. <i>Apogeotropic:</i> Nystagmus beats away from the affected ear. (Opposite of lying-down nystagmus.)
Bow and lean test ^a in which the direction of nystagmus is noted when the patient bends the head forward when facing down (bowing) and when facing upward (leaning). ^{290,291}	Geotropic <i>Bowing position (face down):</i> Nystagmus beats toward the affected ear. <i>Leaning position (face up):</i> Nystagmus beats away from the affected ear. Apogeotropic (reverse of geotropic type) <i>Bowing (face down):</i> Nystagmus beats away from the affected ear <i>Leaning (face up) nystagmus:</i> Nystagmus beats toward the affected ear.

Abbreviation: BPPV, benign paroxysmal positional vertigo.
^aThe supine head roll test will still be needed to determine if there is a pattern of geotropic or apogeotropic direction-changing nystagmus.

Table 8. Basic Differential Diagnosis of Benign Paroxysmal Positional Vertigo.

Otologic Disorders	Neurologic Disorders	Other Entities
Ménière’s disease	Vestibular migraine	Anxiety or panic disorder
Vestibular neuritis	Posterior circulation transient ischemic attack and stroke	Cervicogenic vertigo
Labyrinthitis	Demyelinating diseases	Medication side effects
Superior canal dehiscence syndrome	Central nervous system lesions	Postural hypotension
Posttraumatic vertigo	Vertebrobasilar insufficiency	Various medical conditions (eg, toxic, infectious, and metabolic conditions)
Perilymphatic fistula	Central positional vertigo	
Inner ear lesions		

- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Supporting Text. The purpose of this statement is to improve the diagnostic accuracy of BPPV by reducing misdiagnosis of other potential causes of dizziness.

Despite being the most common cause of peripheral vertigo,⁸⁴ BPPV is still often underdiagnosed or misdiagnosed.³⁴ Other causes of vertigo that may be confused with BPPV can be divided into otologic, neurologic, and other entities. Among patients presenting with dizziness, the frequency of various causes depends on the setting. In a German telephone survey of >1000 patients with dizziness, BPPV accounted for 8% of cases.²² In an analysis of nearly 10,000 US emergency department visits for dizziness, nearly half of patients had a medical diagnosis (nonvestibular and nonneurologic).⁸⁵ Only a third of patients were given a vestibular-related diagnosis. In an evaluation of patients presenting with vertigo in a British general practice setting, BPPV accounted for 42% of cases, followed by vestibular neuritis (41%), Ménière’s disease (10%), vascular causes (3%), and other causes (3%).⁶⁶ In

subspecialty populations, BPPV accounts for 20% to 53% of patients referred to ear, nose, and throat specialty clinics for dizziness.⁸⁶

The most common diagnoses that require distinction from BPPV are listed in **Table 8**. These conditions require distinction from BPPV as their natural history, treatment, and potential for serious medical sequelae are significantly different from BPPV. Patients with BPPV may not specifically describe true vertigo and may complain of light-headedness or nonspecific dizziness; thus, the clinician may need to initially consider a broader differential diagnosis.³² BPPV has been described as occurring in conjunction with, or as a consequence of, other vestibular disorders as well, such as Ménière’s disease and vestibular neuritis.⁸⁷ Therefore, clinicians must consider the possibility of >1 vestibular disorder being present in any patient who does not clearly have the specific symptoms of a single vestibular entity.

Recent studies emphasize that taking a history that focuses on the timing and triggers of a patient’s dizziness is more important than the specific descriptor that a patient uses.^{85,88,89} Timing (acute vs episodic vs chronic) and triggers (discrete