

What is the best way to manage benign paroxysmal positional vertigo?

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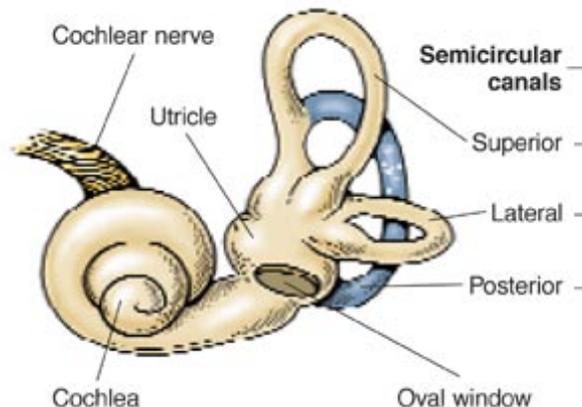
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■ EVIDENCE-BASED ANSWER

A simple repositioning maneuver, such as the Epley maneuver (**Figures 1 and 2**), performed by an experienced clinician, can provide symptom relief from benign paroxysmal positional vertigo (BPPV) lasting at least 1 month (strength of recommendation [SOR]: **A**, systematic review of randomized controlled trials). Medical therapy with benzodiazepines for vestibular suppression provides no proven benefit for BPPV (SOR: **B**, 1 small randomized controlled trial). For undifferentiated dizziness, vestibular rehabilitation may provide symptomatic relief (SOR: **B**, 1 randomized controlled trial).

CAUSE OF BPPVE



BPPV is caused by otoconia in the semicircular canals, usually the posterior canal. Otolith repositioning maneuvers move the otoconia into the utricle.

PLEY MANEUVER FOR BPPV

1. Have the patient lie down quickly onto her back.



2. First, turn the patient's head to the symptomatic side at a 45° angle for 30–60 seconds.



3. Then turn the head to the opposite side for 30–60 seconds.



4. Finally, roll the head facing 45° downward on the same side. Return the patient to a sitting position.



■ EVIDENCE SUMMARY

BPPV is characterized by brief, self-limited episodes of vertigo, provoked by typical position changes. This condition may result from free-floating debris in the endolymph of the posterior semicircular canal. This debris moves with position change, causing an abnormal perception of movement and classic symptoms of vertigo. Dix-Hallpike testing aids in the diagnosis, but treatment is often prescribed empirically.¹

The most widely studied treatments for BPPV are the single-treatment repositioning techniques, such as the Epley maneuver.² A Cochrane review of treatments for BPPV yielded 11 trials, of which 9 were excluded due to a high risk of bias.³ The 2 remaining trials compared the Epley maneuver with a sham procedure among 86 patients referred to specialty care.^{4,5} Outcomes included conversion of the Dix-Hallpike test from positive to negative, as well as resolution of symptoms by patient report. Assessment occurred 1–4 weeks following the

intervention in the 2 trials.^{4,5} Pooled data yielded odds ratios in favor of treatment for both objective testing (OR=5.67; 95% confidence interval [CI], 2.21–14.56) and symptom resolution (OR=4.92; 95% CI, 1.84–13.16), with no adverse outcomes reported.³ We found no trials comparing the Epley maneuver with either vestibular habituation therapy or surgical management of BPPV.

There is no direct evidence for vestibular rehabilitation in BPPV. In a trial of vestibular rehabilitation for prolonged, undifferentiated dizziness, patients were randomized to usual care (n=76) or treatment with two 30-minute home education sessions at baseline and 6 weeks (n=67). A nurse, who had received 2 weeks of training, led the sessions, which included basic education on the vestibular system, causes of dizziness, and the rationale for exercise therapy. The nurse then taught the patients 8 sets of standard head and body movements to be performed twice daily. At 6 months, 69% of the treatment group vs 37% of the control group reported subjective improvement (OR=3.8 at 6 months; 95% CI, 1.6–8.7).⁶

Lorazepam and diazepam had no effect in 1 small randomized controlled trial.⁷ In this study, 25 BPPV patients from specialty clinics were randomized to placebo, diazepam 5 mg, or lorazepam 1 mg 3 times daily for 4 weeks. Patients reported dizziness on a 10-point scale at baseline and after 4 weeks of therapy. Nystagmus severity was also assessed using a 10-point scale at baseline and within 2 days following completion of treatment. The authors found no significant difference between the treatment and placebo arms; however, the study may have been underpowered to detect a clinically significant difference.

■ RECOMMENDATIONS FROM OTHERS

The Vestibular Disorders Association recommends the Epley maneuver as first-line treatment for BPPV, as does the Mayo Clinic.^{8,9} The National Institute on Deafness and Other Communication Disorders suggests that vestibular rehabilitation may be useful as a treatment for dizziness depending on the cause.¹⁰

CLINICAL COMMENTARY

Use otolith repositioning maneuvers

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Although BPPV has a benign long-term outcome, it can be quite bothersome to patients and I have always felt compelled to offer some trial of therapy. Given the overall success and the relative safety of otolith repositioning maneuvers, such as the Epley maneuver, it has become my practice to refer patients to a physical therapist or other provider trained in these techniques. This makes sense from a pathophysiologic standpoint as well. I reserve antihistamines, such as meclizine, for those patients who have frequent, daily symptoms and who have not benefited from otolith repositioning.

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