

FACT SHEET

Why refer a patient with an acute vestibular disorder to a physical therapist?



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A review of the literature suggests that physical therapy intervention for patients with vestibular disorders is beneficial.

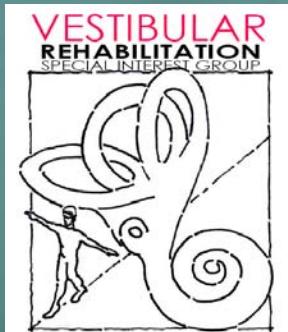
- A meta-analysis of 21 randomized trials suggested that there was moderate to strong evidence to support that vestibular rehabilitation is a safe and effective intervention for persons with peripheral vestibular disorders.¹
- For persons with unilateral vestibular loss, significant differences in postural control were found in those enrolled in a vestibular rehabilitation program compared to a control group.²
- Repositioning maneuvers are effective, improve quality of life, and improve gait speed in people, especially older adults, who experience Benign Paroxysmal Positional Vertigo (BPPV).^{3,4}
- Persons over the age of 70 with dizziness complaints who received vestibular exercises demonstrated significant improvements in dizziness and balance confidence at 3 weeks and 3 months compared to a no-intervention group.⁵

Early physical therapy intervention has demonstrated additional benefit.

- People with peripheral vestibular disorders who underwent balance exercises within 6 months of onset had much better disability scores than those who presented after 6 months.⁶
- Dizziness severity and quality of life measures were predicted by when the balance exercises were initiated, with earlier treatment relating to less dizziness and better quality of life outcomes.⁶
- A delay in the onset of vestibular exercises led to worse scores in all cases studied.⁶
- People with late intervention for BPPV were more likely to experience residual dizziness within a 3 month period.⁷
- Animal studies have suggested that there may be a critical period whereby immobilization has a negative impact on recovery from a vestibular deficit.^{8,9}
- Early vestibular exercises in persons with an acute vestibular disorder resulted in better Dizziness Handicap Inventory scores, less anxiety, less reliance on visual cues, and better gait.¹⁰
- Quality of life scores, as measured by the Medical Outcomes Study short form (SF-36), improved after vestibular rehabilitation in persons with acute vestibular disorders.^{6,11}



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In summary, early exercise appears to decrease dizziness, prevent long term complications such as anxiety, improve quality of life, possibly decrease your patient's chance of falling, and improve balance confidence. Acute physical therapy intervention appears to be a safe and efficacious treatment for persons with vestibular disorders.

References:

1. Hillier SL, Hollohan V. Vestibular rehabilitation for unilateral peripheral vestibular dysfunction. *Cochrane Database Syst Rev*. 2007(4):CD005397.
2. Strupp M, Arbusow V, Maag KP, Gall C, Brandt T. Vestibular exercises improve central vestibulospinal compensation after vestibular neuritis. *Neurology*. 1998;51(3):838-844.
3. White J, Savvides P, Cherian N, Oas J. Canalith repositioning for benign paroxysmal positional vertigo. *Otol Neurotol*. 2005;26(4):704-710.
4. Celebisoy N, Bayam E, Gulec F, Kose T, Akyurekli O. Balance in posterior and horizontal canal type benign paroxysmal positional vertigo before and after canalith repositioning maneuvers. *Gait Posture*. 2009;29(3):520-523.
5. Jung JY, Kim JS, Chung PS, Woo SH, Rhee CK. Effect of vestibular rehabilitation on dizziness in the elderly. *Am J Otolaryngol*. 2009;30(5):295-299.
6. Bamio DE, Davies RA, McKee M, Luxon LM. Symptoms, disability and handicap in unilateral peripheral vestibular disorders. Effects of early presentation and initiation of balance exercises. *Scand Audiol*. 2000;29(4):238-244.
7. Seok JI, Lee HM, Yoo JH, Lee DK. Residual dizziness after successful repositioning treatment in patients with benign paroxysmal positional vertigo. *J Clin Neurol*. 2008;4(3):107-110.
8. Igarashi M, Levy JK, T OU, Reschke MF. Further study of physical exercise and locomotor balance compensation after unilateral labyrinthectomy in squirrel monkeys. *Acta Otolaryngol*. 1981;92(1-2):101-105.
9. Lacour M. [Relearning and critical postoperative period in the restoration of nerve function. Example of vestibular compensation and clinical implications]. *Ann Otolaryngol Chir Cervicofac*. 1984;101(3):177-187.
10. Teggi R, Caldirola D, Fabiano B, Recanati P, Bussi M. Rehabilitation after acute vestibular disorders. *J Laryngol Otol*. 2009;123(4):397-402.
11. Meli A, Zimatore G, Badaracco C, De Angelis E, Tufarelli D. Vestibular rehabilitation and 6-month follow-up using objective and subjective measures. *Acta Otolaryngol*. 2006;126(3):259-266.



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