

Clinical Practice Guideline: Vestibular Rehabilitation for Peripheral Vestibular Hypofunction

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Updated by: Vestibular Hypofunction CPG Update Knowledge Translation Task Force

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What is a Clinical Practice Guideline

A clinical practice guideline is a statement that uses current best evidence to assist with the diagnosis and management of specific conditions. The goal is to help clinicians know who, what, how, and when to treat. This helps your doctor know when to recommend therapy and allows clinicians to stay consistent with treatment. This clinical practice guideline was developed by a team of vestibular rehabilitation experts to assist individuals with a specific inner ear condition called peripheral vestibular hypofunction.

What is Peripheral Vestibular Hypofunction?

Peripheral vestibular hypofunction is a condition in which there is damage to the inner ear or to the nerve that carries the information from the inner ear to the brain. This can occur in one ear (unilateral) or both ears (bilateral). The symptoms that can occur include: dizziness, vertigo, visual blurring with head movement, unsteadiness, and/or falls. This guideline does not include recommendations for those with a central vestibular disorder due to diagnoses such as a stroke, multiple sclerosis, brain injury, or migraine nor does it include recommendations for someone who has only Benign Paroxysmal Positional Vertigo (BPPV).

Why is Vestibular Rehabilitation Important for Peripheral Vestibular Hypofunction?

Vestibular rehabilitation is a type of physical therapy that has been shown to reduce dizziness, improve vision with head movements, improve balance and reduce risk for falls in individuals with peripheral vestibular hypofunction. Since dizziness is a major reason for falls, it is important to get treatment for this problem. Vestibular rehabilitation has been shown to improve quality of life and decrease psychological distress that can occur.

How was this Clinical Practice Guideline Developed and what are the Recommendations?

A team of experts searched current best evidence regarding physical therapy for inner ear disorders. Research articles were appraised and issued a score to assign strength of the evidence. Based on this research, and combined with expert opinion, the following was recommended:

WHO do physical therapists treat?

- Individuals who are experiencing symptoms such as dizziness or imbalance from peripheral vestibular hypofunction.
- Individuals with symptoms from peripheral vestibular hypofunction can do well with therapy regardless of age and gender.

- Vestibular rehabilitation can be helpful for those with long standing symptoms; however, it is advised to start as soon as possible as this helps with the chance of a shorter time in therapy and better recovery.
- Use of vestibular suppressants like meclizine (Antivert), dimenhydrinate (Dramamine) or diazepam (Valium), may negatively affect recovery and require longer time in therapy.

WHAT do physical therapists treat?

Problems that are due to peripheral vestibular hypofunction include:

- Dizziness/vertigo
- Visual blurring with head movement
- Unsteadiness and/or falls

HOW do physical therapists treat?

- Exercises are the main form of treatment.
 - There are improved outcomes with supervised, customized exercises rather than a generic exercise program with no regular supervision.
 - The type of exercise that is performed depends on the problem(s). There are typically four different exercise types that can be done:
 - Gaze Stability exercises
 - Goal is to improve vision during head movement
 - Can also reduce dizziness and improve unsteadiness.
 - Individuals perform head movements while maintaining focus on an object
 - Habituation exercises
 - Goal is to reduce dizziness/vertigo.
 - Individuals perform movements or watch things that move to cause temporary feelings of dizziness/vertigo
 - With consistent practice, over time, the dizziness/vertigo reduces.
 - Balance and Gait exercises
 - Goal is to improve steadiness and prevent falls with standing and moving activities.
 - Individuals perform customized balance activities to challenge postural control
 - Endurance walking or aerobic exercises
 - Frequently, general conditioning is a part of vestibular rehabilitation because individuals with peripheral vestibular hypofunction limit physical activity to avoid making their symptoms worse.
 - For those who have difficulty with vision during head movements, it is recommended that the gaze stability exercises should be done at home a minimum of three times per day for a total of at least 12-20 minutes each day.
- **Eye exercises without head movements, such as eyes tracking a moving object or eyes moving back and forth between objects, are not sufficient treatment for peripheral vestibular hypofunction.

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WHEN do physical therapists treat?

- Guidelines for the overall length of vestibular rehabilitation:
 - Therapy for 4 – 6 weeks for unilateral hypofunction.
 - Therapy for 8 – 9 weeks for bilateral hypofunction.
- Vestibular rehabilitation is stopped when:
 - Main goals are met or symptoms resolve
 - When symptoms no longer improve or worsen for prolonged time
 - If problems (co-morbidities), other than due to the inner ear, prevent participation
 - Prescribed home exercises are not regularly performed (non-adherence)
 - Patient chooses to discontinue



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