REFERENCE FOR REHABILITATION PROFESSIONALS

CLINICAL PRACTICE GUIDELINES
FOR PERIPHERAL VESTIBULAR HYPOFUNCTION

ACADEMY OF NEUROLOGIC PHYSICAL THERAPY

Effectiveness of Vestibular Rehabilitation

- **Strong recommendation (Level I*) that vestibular rehabilitation should be offered to patients with symptoms due to:**
  - **Acute, Subacute, & Chronic Unilateral Hypofunction**
  - **Bilateral Hypofunction.**
- **Benefits:**
  - Reduces dizziness/vertigo, improves gaze stability and reduces imbalance and falls
  - Improves activities of daily living and quality of life
- **Risks:**
  - Potential increase in cost & time for patient to travel
  - May increase symptom intensity at treatment onset
- **Studies show there is a preponderance of benefit compared to harm**
- **Exclusions:**
  - Compensated vestibular loss; cognitive or mobility deficit that impedes effective application; or active Meniere's disease

Factors that Modify Vestibular Rehabilitation Outcome

- **Moderate to strong recommendation (Level I-II*):**
  - **Age and gender do not affect outcomes. Early intervention may improve outcomes for individuals with acute unilateral hypofunction; time since onset does not affect outcomes for individuals with chronic vestibular hypofunction**
  - **Potential harm if rehabilitation delayed**
  - **May have negative impact on recovery**
    - Co-morbidities (anxiety, depression, migraine, peripheral neuropathy, abnormal vision, abnormal cognition)
    - Long term use of vestibular suppressants

Supervised Vestibular Rehabilitation Effectivene

- **Strong recommendation (Level I*) that patients with peripheral vestibular hypofunction use customized, supervised exercises**
- **Benefits:**
  - Promotes adherence with rehabilitation
  - Better outcomes compared to generic or solely-home programs
- **Risk:**
  - Potential increase in cost & time for patient to travel
- **Exclusions:**
  - Patients living long distances from therapy may not be able to participate in supervised setting; remote telehealth may be an option

Optimal Exercise Dose

- **Weak recommendation (Level II_III*) for gaze stabilization exercise for unilateral & bilateral hypofunction consists of:**
  - **Acute/Subacute** – Three times/day minimum (At least 12 minutes/day)
  - **Chronic** – Three to five times/day minimum (At least 20 minutes/day) for 4 – 6 weeks
  - **Bilateral** – Three to five times/day (20 – 40 minutes/day) for 5 – 7 weeks

Exclusions: Risk of bleeding or cerebrospinal fluid leak, patient no longer experiences dizziness or unsteadiness

Saccadic or Smooth Pursuit Exercises Effectiveness

- **Strong recommendation (Level I*) that voluntary saccadic or smooth pursuit eye exercises should not be offered in isolation as gaze stabilization exercises**
  - Gaze stabilization exercises, using adaptation & substitution, are more effective
- **Risk:**
  - Causes delay in receiving an effective exercise program
  - Increases cost & time for patient to travel

Effectiveness of Different Exercise Types for Unilateral Peripheral Vestibular Hypofunction

- **Strong to Moderate recommendation (Level I-II*) for use of supervised targeted exercise techniques for acute and chronic hypofunction**
- **Benefit-harm assessment:**
  - Unknown consequences when patients perform an exercise that does not address their primary problem
  - Important to use the most appropriate exercise approach for identified impairments and activity limitations
- **Exclusions:**
  - Cognitive or mobility deficit than impedes effective application or active Meniere's disease

Vestibular Rehabilitation Harm/Benefit Ratio

- **Strong recommendation (Level I*) that quality of life improves and psychological distress reduces with rehabilitation**
  - Improvements in perceived disability and anxiety scores
- **Potential negative impact on quality of life**
  - Side effect of neck pain, motion sickness, or nausea
  - Dizziness and imbalance side effects of exercises could increase psychological distress

Stopping Vestibular Rehabilitation

- **Moderate recommendation (Level II*) for the decision to stop rehabilitation based on:**
  - **Goals met; symptoms resolve; reach plateau; evidence of normalized gait, balance, or vestibular function; non-adherence; symptoms increase; clinical judgement based on the patient's goals, preferences, and values**
- **Patient with moderate to severe cognitive or moblity deficits may require additional sessions:**
- **Risk:**
  - Prematurely stopping before reach maximum gains
  - Protracted treatment costly
  - Decreased access to care for new patients

FOR MORE DETAILED INFORMATION, PLEASE REFER TO THE ORIGINAL DOCUMENT:
https://journals.lww.com/jnpt/Abstract/9000/Vestibular_Rehabilitation_for_Peripheral.99697.aspx

LEVEL OF EVIDENCE*

I	II	III	IV	V
High quality (>50% critical appraisal score) diagnostic studies, prospective, or randomized controlled trial	Lesser quality (<50% critical appraisal score) diagnostic studies, prospective, or randomized controlled trial	Case-controlled or retrospective studies	Case study or case series	Expert opinion

Based on Centre for Evidence Based Medicine website: http://www.cebm.net/oxford-centre-evidence-based-medicine-levels-evidence-march-2009/

+Hall CD, et al. Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: An Updated Clinical Practice Guideline. JNPT. 2021; doi: 10.1097/NPT.0000000000000382.

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