

The background is a dark blue gradient with faint, light blue circular motion lines and a degree scale on the left side. The scale ranges from 140 to 260 degrees in increments of 10. The title 'VESTIBULAR REHABILITATION' is centered in white, uppercase letters.

VESTIBULAR REHABILITATION

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OBJECTIVES

- What is vestibular therapy?
 - Review the anatomy of the inner ear
 - Discuss common causes of vertigo
 - Overview of vestibular screening and evaluation
 - Review treatment strategies to address balance deficits and vertigo



BALANCE

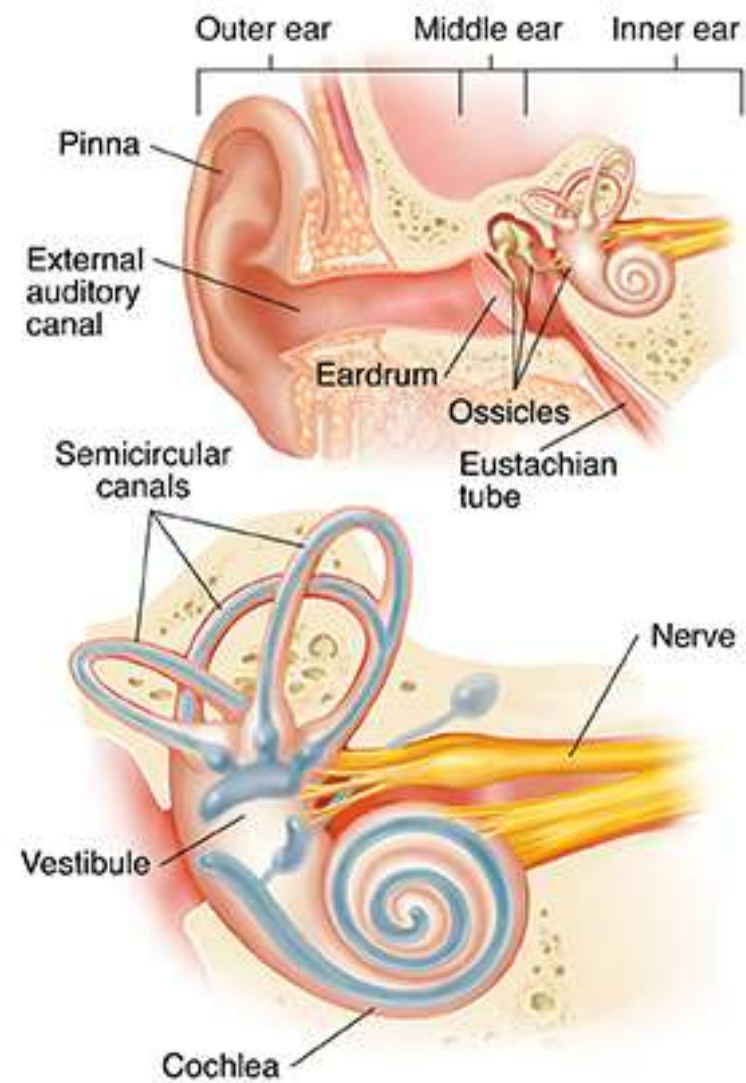
Vestibular system

Vision

Somatosensory

Integration in
central nervous
system

- Vestibulo-ocular reflex
- Vestibulo-spinal reflex
- Vestibulo-collic reflex



INNER EAR ANATOMY

Semicircular canals

- Anterior
- Posterior
- Horizontal

Otolithic organs

- Utricle
- Saccule

- Creator: Mary Ann Zapalac
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BPPV - BENIGN PAROXYSMAL POSITIONAL VERTIGO

Most common cause of dizziness in patients over 60 years

Otoconia become displaced into semicircular canals

Symptoms: brief episodes of vertigo and upbeat torsional nystagmus lasting 20-60 seconds.

Treatment: Canalith repositioning maneuvers

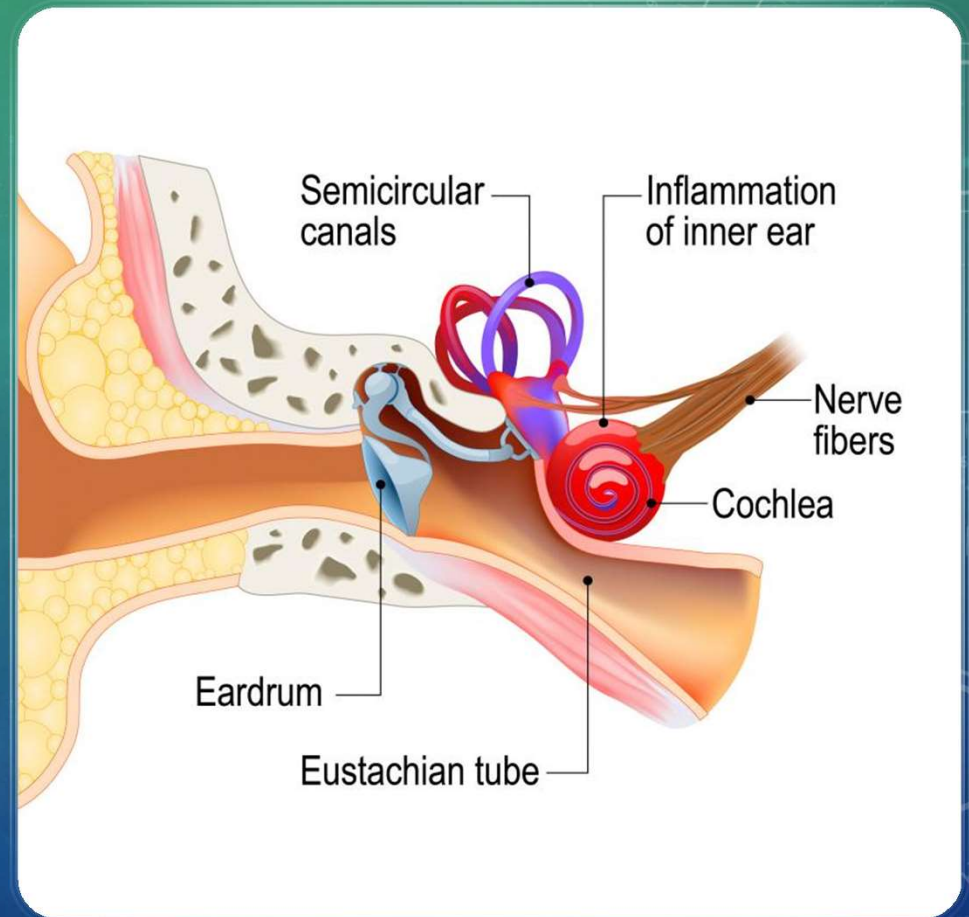
- Epley
- Semont

VESTIBULAR NEURITIS

Second most common cause of vertigo

Inflammation of 8th cranial nerve

Symptoms: acute onset of prolonged severe rotational vertigo that is exacerbated by head movements



CLINICAL
PRESENTATION:

VESTIBULAR
NEURITIS
VS.
BPPV



VESTIBULOPATHY

A change or reduction in the output of one or both inner ear vestibular systems – vestibular hypofunction.

SCREENING AND EVALUATION FOR VESTIBULAR DYSFUNCTION

- "Assessing vestibular asymmetry could predict falls among elderly patients with multisensory dizziness". (4)
 - Falls Efficacy scale
 - Activities Specific Balance and Dizziness Handicap Inventory Scales (ABC)

SOMATOSENSORY

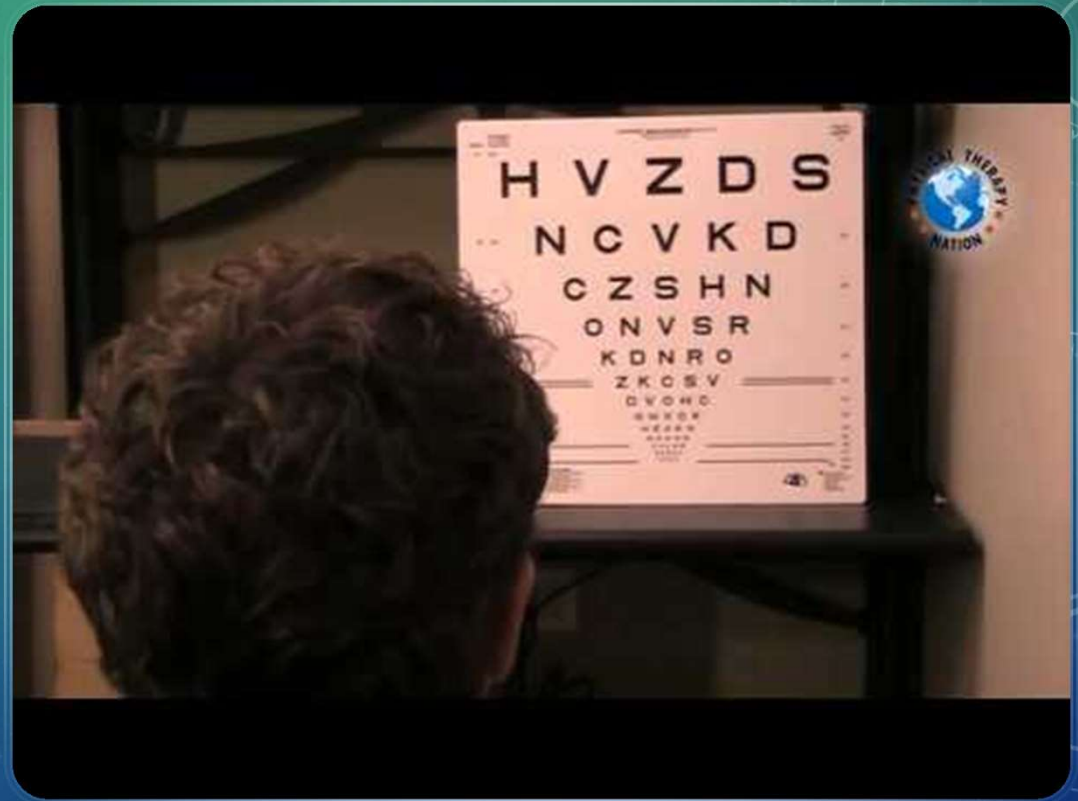
Standardized balance test with age related normal values

Gait speed

- Community dwellers need to be able to walk 1.2 meters per second
- If less than .7m/s = increased need for caregiver, nursing home placement, death

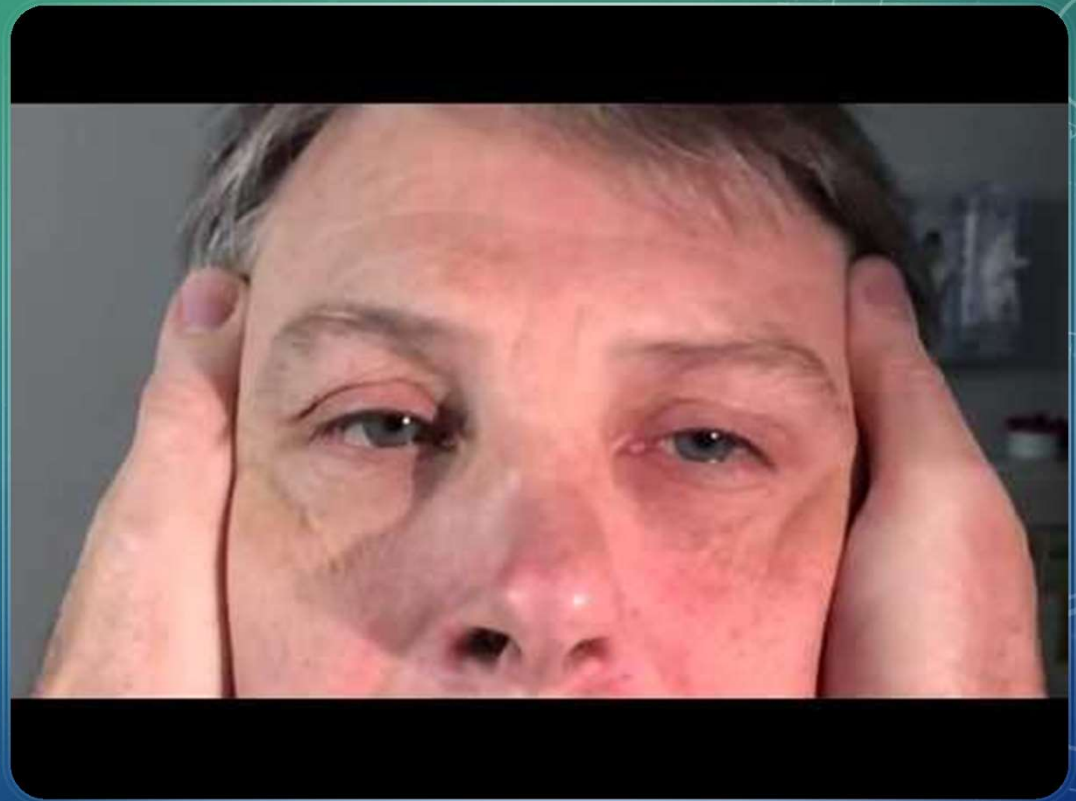
VISION ASSESSMENT

- Smooth pursuit
- Saccade
- Vestibular Ocular Reflex (VOR)
- Oscillopsia
- Have they been to the eye doctor?

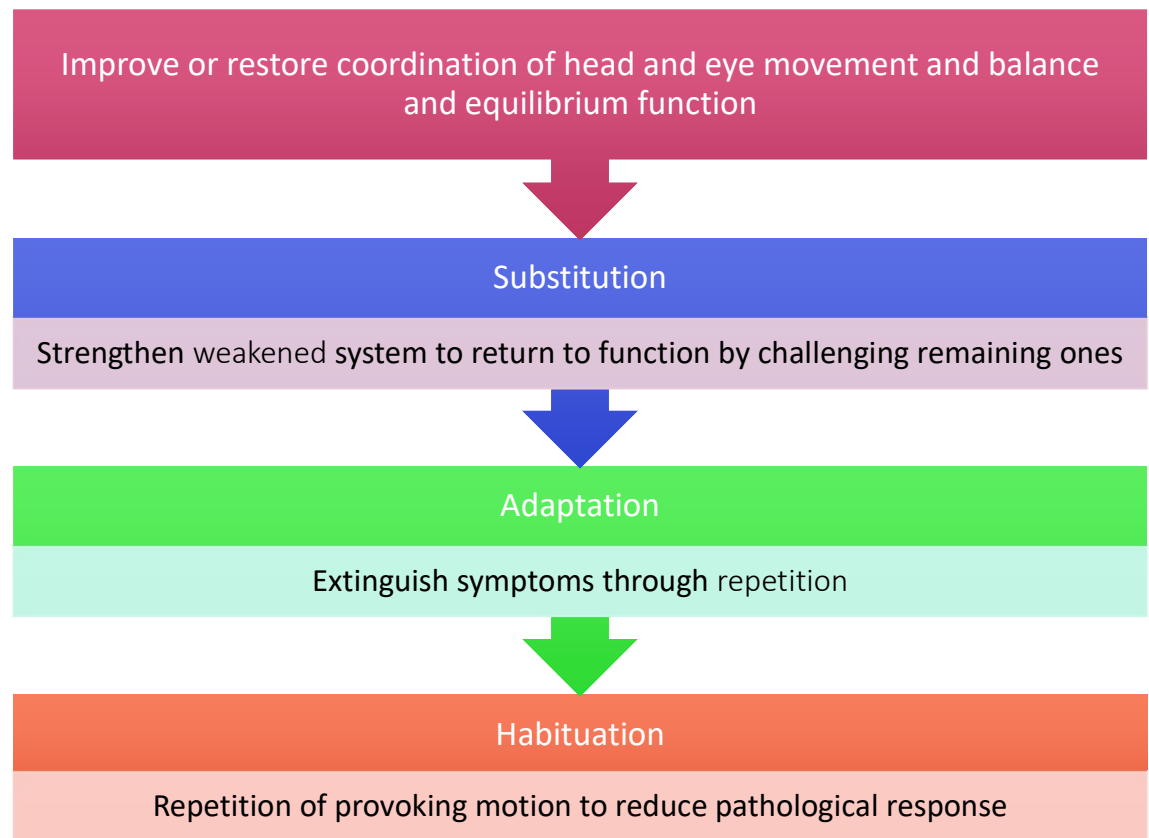


HEAD IMPULSE TEST

- Assess vestibulo-ocular reflex



VESTIBULAR REHABILITATION



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