# Vestibular Assessment & Management Certification Workshop

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## Day 1

- Welcome and Introductions
  - Statement of need and demographics
  - Historical perspective
- Review of the theory of human equilibrium: Integration of vestibular, vision and somatosensory modalities and central processing
- Nystagmus- definition and description
- Anatomy and physiology of peripheral and central vestibular mechanism
  - Vestibulo-Ocular Reflex (VOR)
  - Vestibulo-Collic Reflex (VCR)
  - Vestibulo-Spinal Reflex (VSR)
  - Cervico-Ocular Reflex (COR)
  - Cervico-Collic Reflex (CCR)
  - Cervico-Spinal Reflex (CSR)
- Central Vestibular Mechanism anatomy and physiology (continued)
- Central Vestibular Compensation
- Pathophysiology of common vestibular and balance disorders
  - Benign Paroxysmal Positional Vertigo (BPPV)
  - Migraine
  - Concussion
    - Cortical vs. Labyrinthine
    - Neurocognition
  - Otologic Disorders
  - Neurologic Disorders
  - Toxicity
  - Trauma
Day 2

- Clinical Pathways
  - Important Definitions
    - Stabilized vs. Non-stabilized
    - Compensated vs. Non-Compensated
  - Critical Decision Analysis
    - Case History
    - Selecting Tests and Integrating Results
- Evaluation & Assessment Protocols
  - Subjective Evaluation using Handicap Scales
  - Vestibular Spinal Reflex (VSR) Evaluation: Bedside examination or using technology
    - Gans SOP with hands on practice
    - Computerized Dynamic Posturography
  - Vestibulo Ocular Reflex (VOR) Evaluation: Hands on practice and interpretation
    - Halmagyi Head Thrust
    - Video Head Impulse Test (vHIT)
    - Dynamic Visual Acuity using Snellen chart and AIB CDVAT
  - Optokinetic Test (bedside)
  - Vertebral Artery Screening Test (VAST)
  - Cervical Dizziness Test

Day 3

- Evaluation & Assessment Protocols (continued)
  - Kinetic Rotary Chair
  - Vestibular Autorotation Testing (VAT)
  - Electrophysiological Testing: Review of protocols and applications
    - VideoNystagmography (VNG)
      - Protocols
      - Interpretation
- Evaluation & Assessment Protocols (continued)
  - VideoNystagmography (VNG) (continued)
Day 4

- Benign Paroxysmal Positioning Vertigo (BPPV)
  - Demonstration of Canalith Repositioning Maneuvers (CRM)
    - Posterior Canal
    - Horizontal Canal
    - Anterior Canal
  - Manual Practice of CRMs
    - Modified Canalith Repositioning Maneuvers (CRM Epley/Herdman style)
    - Semont Liberatory Maneuver (SLM)
    - Gans Repositioning Maneuver (GRM)
    - Appiani/Casani
    - Barbecue Roll/Log Roll
    - Deep head hang

- BPPV (continued)
  - Manual Practice of CRMs (continued)
  - Treatment Considerations
    - Post CRM Restrictions
    - Complications of BPPV Treatment
    - Improving Outcomes

- Diagnosis Based Strategies: Vestibular Rehabilitation Therapy
- Theories of Adaptation, Habituation, and Substitution
- Evidence-based Clinical Pathways: Using VRT protocols and creating patient-centered therapy
  - Identification of functional impairment by categories
    - Oscillopsia
    - Vestibular Recruitment
    - Vestibular Visual Integration - vision/surface dependence
    - Measuring Outcomes
    - Manual Practice
Day 5

- Psychological Considerations
  - Manifestations and the influence of personality disorders
  - Using Cognitive Behavioral Therapy (CBT) with VRT
- Case Studies
- Business of Balance
  - Education
  - Marketing
- Summary and Conclusions

Syllabus timeline is for general purposes only. Depending on interest of the class, depth of discussions, questions, demonstrations and any hands-on, timeline may be adjusted. All content, however, will be covered.