

Vestibular Rehabilitation and Concussion Certification Workshop

Faculty: Richard E. Gans, Ph.D., Sara Jagger, Au.D., Darren Kurtzer, Au.D., Kathy Kounnas, PT, DPT

Day 1

- Welcome and Introduction
 - Statement of need and demographics
 - Historical perspective
- Anatomy and Physiology of the Vestibular System
 - Peripheral
 - Central
- Understanding sensory integration of equilibrium
 - Vestibular Reflex systems
 - Vestibulo-ocular (VOR)
 - Nystagmus Definitions and Videos
 - Vestibulo-spinal (VSR)
 - Vestibulo-collic (VCR)
- Common disorders affecting vestibular function
 - Benign Paroxysmal Positional Vertigo (BPPV)
 - Migraine
 - Otologic
 - Neurologic
 - Toxicity
 - Trauma
 - Concussion
- Psychological Considerations
 - Space and Motion Discomfort (SMD)
 - Chronic Subjective Vertigo
 - Migraine Anxiety Related Dizziness (MARD)
 - Phobic Postural Vertigo
 - Motor Conversion Disorder

- Concussion Basics
 - What is a concussion?
 - Structural vs. metabolic damage
 - Implications of concussions
 - Who is at risk for concussions
 - Signs and symptoms of concussions and TBIs
- Neurocognitive Assessment and Management of Concussion
 - Neuropsychology of concussion
 - Neurocognitive testing and management
 - Executive control assessment and management

Day 2

- Neurocognitive Assessment and Management of Concussion (Continued)
- Review of evidence based literature supporting the use of Vestibular Rehabilitation Therapy (VRT) as a gold standard for concussion
- Evaluation & assessment protocols
 - Stabilized vs. Non-stabilized
 - Compensated vs. Non-compensated
 - Clinical Pathways
- Postural Stability
- Head Thrust
- Dynamic Visual Acuity
- Vertebral artery
- Cervical dizziness
- Review of theories of BPPV
- Provoked Vertigo Tests
 - Motion Sensitivity Index
 - Differentiating peripheral vs. central involvement
 - Modified Hallpike – Posterior semicircular canal
 - Positional – Anterior and Horizontal semicircular canals
- Manual Practice

Day 3

- Demonstration of Canalith Repositioning Maneuvers (CRM)
 - Posterior Canal
 - Horizontal Canal
 - Anterior Canal
- Manual practice hands-on - CRMs
 - Modified Canalith Repositioning (CRM Epley/Herdman style)
 - Semont Liberatory Maneuver (SLM)
 - Gans Repositioning Maneuver (GRM)
 - Appiani
 - Casani
 - Barbecue Roll/log roll
 - Deep head hang
 - Kurtzer Hybrid Maneuver (KHM)
- Treatment Considerations
 - Restrictions
 - Complications
 - Improving outcomes
- Diagnosis Based Strategies
 - Theories of Adaptation, Habituation and Substitution
 - Evidenced-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
- Manual Practice
- Outcome Measures
 - Objective
 - Subjective

Day 4

- Building and implementing Concussion protocols
 - Understanding the dynamics of cognitive load vs. vestibular central compensation, differentiation of protocols
 - Scoring the AIB Vestibular Cognitive Integration Protocols (AIB-VCI)
 - Differentiation of cognitive vs. labyrinthine performance and return to play/activities decisions (RTP/A)
- Manual Practice
- Integrating Vestibular Protocols into the Physical Therapy Initial Evaluation
 - Clinical Pathways for the dizzy, vertiginous, and balance-disordered patient
 - Writing goals and objectives
- Case Studies: Bringing it all together
 - BPPV
 - Concussion
 - Multifactorial
 - Neuritis
 - Psychogenic
 - Vestibular Migraine
- Questions and Answers
- Summary and dismissal

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.