

Vestibular Rehabilitation & Concussion Certification

HYBRID

ONLINE + IN-PERSON



COURSE DESCRIPTION

This 30 hour course is geared towards the clinician interested in learning evidence-based management for both the Vestibular and Concussion (m-TBI) patient. This workshop is comprised of the Vestibular Rehabilitation Certification Workshop and a comprehensive Concussion Management module, consisting of evaluation and management tools for sports and non-sports related m-TBI. Evidence-based protocols will be presented, demonstrated, and practiced throughout both the online and live components of the course to ensure clinicians produce excellent outcomes.

CONTENT OVERVIEW

- An overview of vestibular anatomy and physiology
- Understanding sensory integration of equilibrium
- Disorders affecting vestibular function
- Neurophysiology of central compensation
- VRT protocols: adaptation, habituation, and substitution for patient-centered therapy
- Psychogenic factors affecting VRT outcomes
- BPPV diagnosis & treatment – Canalith Repositioning Maneuvers (CRM) with manual training
- Evaluation and management of Vestibular Disorders, including BPPV
- Cortical and labyrinthine concussion differentiation
- Evaluation and management of cortical concussion (m-TBI), including vestibular, ocular, cervical, anxiety/mood, post-traumatic migraine, and cognitive/fatigue trajectories.
- Interactive concussion management strategies
- Extensive training materials for therapy programs



LEARNING OBJECTIVES

- Describe peripheral and central vestibular anatomy and physiology
- Discuss the functional anatomy of the central nervous system and balance system
- Explain the concept of central compensation and those factors affecting it
- Name the most common otologic and non-otologic conditions which may cause dizziness, vertigo, and imbalance
- Demonstrate the most sensitive bedside/clinical evaluation protocols which identify candidates for treatment and proper triage and management
- Differentiate vestibular test abnormalities that identify patients who are “appropriate” candidates for therapy.
- Integrate cortical and vestibular rehabilitation into a comprehensive management program with longitudinal therapeutic outcome measures
- Select and perform the appropriate Canalith Repositioning Maneuvers for all forms of BPPV.
- Describe the relationship of the cervical spine in the management of the “dizzy” patient.
- Explain the pathophysiology of a cortical concussion and labyrinthine concussion
- Recognize who is most at risk of sustaining a concussion
- Recognize the differences between the cortical recovery process and central vestibular compensation
- Recognize the signs and symptoms of a concussion, second impact syndrome, and chronic traumatic encephalopathy
- Identify the need for removal from activity and evaluation
- Discuss the classification of injury and clinical trajectories associated with concussion (m-TBI)
- Describe and develop management strategies around the seven clinical trajectories of concussion (m-TBI)
- Describe and develop return-to-play, learn, and work decisions based on your therapeutic intervention.

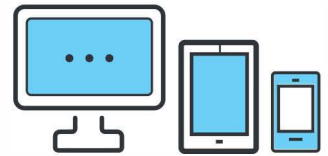


TARGET AUDIENCE

- ➔ Physical Therapists
- ➔ Physical Therapist Assistants
- ➔ Occupational Therapists
- ➔ Certified Occupational Therapy Assistants
- ➔ Audiologists
- ➔ Physicians (MD, DO)
- ➔ Athletic Trainers

SYLLABUS

VESTIBULAR REHABILITATION



1 MODULE

ANATOMY & PHYSIOLOGY OF THE VESTIBULAR SYSTEM

Welcome and Introduction

- Statement of need and demographics
- Historical perspective

Anatomy and Physiology of the Vestibular System

- Peripheral
- Central

Central Vestibular Compensation: How and Why VRT works

Understanding Sensory Integration of Equilibrium

- Eye movements
 - Pendular Pursuit
 - Saccades
 - Optokinetic
 - Corrective Saccades
 - Nystagmus
- Vestibular Reflex systems
 - Vestibulo-ocular (VOR)
 - Vestibulo-collic (VCR)
 - Vestibulo-spinal (VSR)

2 MODULE

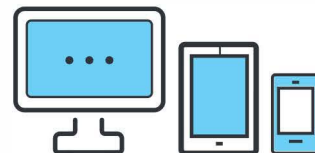
COMMON DISORDERS AFFECTING VESTIBULAR AND BALANCE FUNCTION

Common disorders affecting vestibular and balance function

- Benign Paroxysmal Positional Vertigo (BPPV)
- Migraine
- Psychological Considerations
- Concussion
- Otologic
- Trauma
- Toxicity
- Neurologic
- Rheumatology/Autoimmune
- Cervicogenic
- Other

SYLLABUS

VESTIBULAR REHABILITATION



3 MODULE

EVALUATION AND ASSESSMENT PROTOCOLS VESTIBULOPATHY

Evaluation & assessment protocols

- Stabilized vs. Non-stabilized
- Compensated vs. Non-compensated
- Goals and plan of care
- ICD-10 and CPT codes

Evaluation - Interview

- Clinical Pathways
 - Pertinent medical history
 - Selecting appropriate vestibular evaluation tests
- Clinimetrics

Evaluation – Postural Stability

- Gans SOP

Evaluation – Oculomotor & VOR

- Bedside gaze assessment
- Head Thrust/Impulse Test
- Dynamic Visual Acuity
- Post headshake nystagmus
- Optokinetic test
- Motion Sensitivity Index

4 MODULE

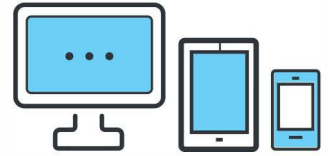
CERVICOGENIC CONSIDERATIONS

Evaluation – Cervicogenic Considerations

- Vertebral artery compromise
- Cervical Dizziness and Joint Position Sense Test(s)

SYLLABUS

VESTIBULAR REHABILITATION



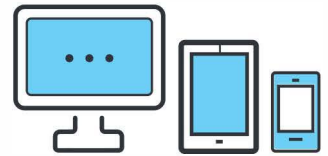
5
MODULE

VESTIBULAR REHABILITATION THERAPY PROTOCOLS

Vestibular Rehabilitation Therapy (VRT)

- Diagnosis Based Strategies
- Theories of Adaptation, Habituation, and Substitution
- Role of Attention and Cognition
- 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
- Building and Implementing VRT Protocols
- Manual Practice
- Precautions to VRT

Summary and Concluding Remarks



1 MODULE

INTRODUCTION TO CONCUSSION MANAGEMENT

Introduction

- Epidemiology of Mild Traumatic Brain Injury
- The Concussion Continuum & Rehabilitation Team
- The AIB Approach to Comprehensive Concussion Management

Anatomy & Physiology

- Structural vs. Metabolic Damage
- Chemical Cascade & Physiological Changes
- Second Impact Syndrome in Return to Activity/Sport/Work/Environment
- Role of Diagnostic Imaging in Concussion Management – Current & Future
- Chronic Traumatic Encephalopathy (CTE) & Societal Concerns

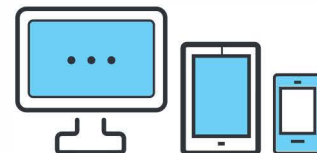
Classification of Concussion

- Terminology & Grading of Concussion
- Clinical Trajectories of Concussion
 - Vestibular
 - Ocular
 - Cognitive/Fatigue
 - Post-Traumatic Migraine
 - Cervical
 - Anxiety/Mood

2 MODULE

ASSESSMENT & EXAMINATION TOOLS

- BESS Test
 - King-Devick
- Sport Concussion Assessment Tool Version 6 (SCAT-6)
 - SCAT-6, SCOAT-6, CRT-6, Pediatric
- Neuropsychological Testing - Computer-based Neurocognitive Testing
- Buffalo Concussion Treadmill Test (BCTT), Bike Test
- Post-Concussion Symptom Scale (PCSS)
- Components of Comprehensive Exam
- Post Concussion Syndrome: Risks and Management
- Outcome measures



3 MODULE

VESTIBULAR TRAJECTORY

- Review of the role of Vestibular System and Concussion
- BPPV-Incident and Prevalence with Concussion
- Vestibular Hypofunction-review of Labyrinthine Concussion
- Building a Concussion Management Strategy
 - AIB Vestibular-Cognitive Integration (AIB-VCI)

4 MODULE

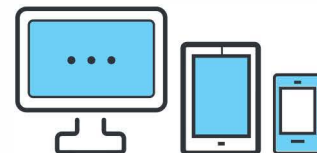
OCULOMOTOR TRAJECTORY

- Ocular Assessment and Rehabilitation Strategies
 - VOMS
 - Convergence Insufficiency
 - Accommodation Insufficiency
 - Ocular Rehabilitation Strategies

5 MODULE

CERVICAL TRAJECTORY

- Definition, Incidence, and Prevalence
 - Subjective History
 - Objective Examination
 - Relevance of Vertebral Artery Screening
 - Upper Cervical Instability Screen
- Integrated Cervical Rehabilitation Approaches



6
MODULE

COGNITIVE/FATIGUE TRAJECTORY

- Recognition of Signs & Symptoms for C/F Trajectory
- Reaction Time for Task Oriented Activities
- Memory Assessment & Rehabilitation Interventions
- Exertional Interventions

7
MODULE

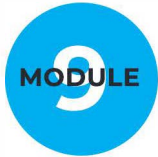
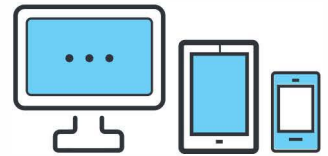
POST-TRAUMATIC MIGRAINE TRAJECTORY

- Definition Post-Traumatic Headache (PTH) and Migraine
- Risk factors (pre-existing, gender)
- Differential Diagnosis
- Role of Medication, Diet and Rehabilitation

8
MODULE

COGNITIVE/MOOD TRAJECTORY

- Mental Health Related Issues
 - Depression, cognitive, language & communication, personality, sleep, memory difficulty, anxiety, learning difficulties, inability to concentrate
 - Fear Avoidance



RETURNING TO ACTIVITY AND FUTURE MANAGEMENT

- Return to Learn Strategies
 - Communication with Academic Personnel
 - Symptom-based Accommodation Strategies
 - Short-term vs. Long-term Accommodations

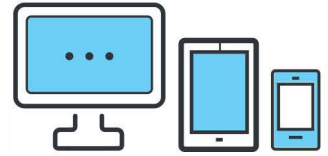
- Return to Sport Strategies
 - Familiarity with International Guidelines
 - Return to Play Protocol

- Return to Work Strategies
 - Knowledge of Worksite and Physical Requirements
 - Accommodations for Desktop Employment Settings
 - Accommodations for Physical Exertion Employment Settings

- Next Steps
 - Advances in Diagnostic and Rehabilitation Strategies
 - Virtual Reality
 - Risk Reduction-Sports and Non-Sports population
 - Cervical Strengthening
 - Equipment
 - Knowledge of Associated Risks (ex: Lower Extremity, Repeated Concussion)
 - Imaging/Biomarkers
 - Billing/Coding
 - Concluding Remarks

SYLLABUS

CONCUSSION



PATIENT CARE RESOURCES

Self-directed Case Studies

Vestibular and Concussion Evaluation and Clinical Forms

Balance and Equilibrium Outcome Measurement Tools

Patient Education Forms

Self-directed Vestibular Rehabilitation Program and Protocols

- Includes 30 patient education forms with pictures and written instructions

Clinician-directed Vestibular Rehabilitation Program and Protocols

- Includes 40 patient education forms with pictures and written instructions

ON-SITE/LIVE ONE-DAY HANDS-ON SYLLABUS



Vestibular Rehabilitation
8:00 am to 4:30 pm

Concussion
4:30 pm to 6:00 pm

VESTIBULAR REHABILITATION CERTIFICATION

Morning Session: 8:00 am – 12:00 pm (Break 10:00 - 10:15 am)

- **Welcome and Introductions**
- **Review of Anatomy and Physiology of the Vestibular System**
 - Peripheral vs. Central Presentation
 - Eye movements
 - Pendular Pursuit
 - Saccades
 - Optokinetic
 - Corrective Saccades
 - Nystagmus
- **Bedside Evaluation Demonstration and Practice**
 - Gans SOP
 - Bedside gaze assessment
 - Head Thrust/Impulse Test
 - Dynamic Visual Acuity (DVA)
 - Post-Headshake Nystagmus Test
 - Optokinetic Test
 - Motion Sensitivity Index
 - Cervicogenic Testing
 - Vertebral Artery Screen
 - Cervical Dizziness Test(s)
 - Joint Position Sense Test
- **Vestibular Rehabilitation Therapy (VRT)**
 - Review of 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
 - Building and Implementing VRT Protocols
 - Manual Practice

Morning

ON-SITE/LIVE, ONE-DAY HANDS-ON SYLLABUS



Vestibular Rehabilitation
8:00 am to 4:30 pm

Concussion
4:30 pm to 6:00 pm

Lunch

LUNCH ON YOUR OWN: 12:00 PM – 12:30 PM

Afternoon

VESTIBULAR REHABILITATION CERTIFICATION

Afternoon Session: 12:30 – 4:30 pm (Break 3:00 – 3:15 pm)

- Demonstration of Canalith Repositioning Maneuvers (CRM)
- Manual practice hands-on - CRMs
 - Posterior Canal
 - Modified Canalith Re-positioning (CRM Epley/Herdman style)
 - Semont Liberatory Maneuver (SLM)
 - Gans Repositioning Maneuver (GRM)
 - Horizontal Canal
 - Appiani
 - Casani
 - Horizontal Hybrid Maneuver
 - Barbeque Roll
 - Anterior Canal
- Summary and Concluding Remarks-Vestibular Certification
- Questions and Answers-Vestibular Certification

Late
Afternoon

CONCUSSION COMPONENT

Required for Concussion Certification: 4:30-6:00 pm

- Concussion Assessment and Examination Tools
 - Upper Cervical Instability Testing (UCI)
 - VOMS Testing
 - Postural Stability Testing: BESS, SOP
- Questions and Answers-Concussion Certification

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



Certification & CEUs

21 CONTACT HOURS

Online, self-paced course

9 CONTACT HOURS

One-Day LIVE Hands-on Course



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ONLINE + IN-PERSON

After completion of the online component, participants have the option to attend the one-day hands-on clinical competency course. This will be conducted in many major US cities as the final component for certification. To ensure a complete, comprehensive learning experience, we encourage participants to attend the one-day, live, hands-on course **AFTER** completion of the online course.

CEUs for the online component and the one-day live component can be individually issued upon completion. Please note, CEU approval may vary state to state.

Certification is earned after completion of BOTH the online and live course, combined with a passing score on the written AND competency-based exams.

For course details, dates & locations, please visit
[DIZZY.COM/VRC](https://dizzy.com/VRC)

Course Cancellation & Refund Policy (Hybrid & Online Workshops)

Once purchased, there will be no refunds or cancellations. Participants will receive all enduring materials upon registering and will have remaining access to all content as a certified member.

Course Transfer Policy

Transfer requests 30 or more days before the workshop, will be charged a fee of \$150.

Transfer requests 29 or less days before the workshop, will be charged a fee of \$250.

No Show Policy (Hybrid)

Registrants who do not show up for their scheduled live hands-on workshop will have 3 calendar days to contact AIB to reschedule their missed live hands-on workshop. At that time, registrants have the option to reschedule to another date/location for the live hands-on workshop, and a \$250 fee will apply. Registrants who do not notify us within the 3 calendar days of their absence will forfeit the one day live hands-on component of the certification.

In-Person Workshops

Course Cancellation & Refund Policy

Cancellation requests must be submitted via the contact form on the AIB website.

Please note the cancellation windows below:

30 days or more before the workshop – Refund less \$150 processing fee

29 days or less before the workshop - 50% refund

14 days or less before the workshop - No refund

Course Transfer Policy

Transfer requests 30 or more days before the workshop, will be charged a fee of \$150.

Transfer requests 29 or less days before the workshop, will be charged a fee of \$250.

The transfer request must be made at least 14 days prior to the workshop date (via phone 727.398.5728 EXT 212 or support@dizzy.com)

No Show Policy

Registrants who do not show up for their scheduled in-person workshop will forfeit their in-person workshop and no refunds will be made.

Your Access to and Control Over Information

You may opt-out of any future contacts from us at any time. You can do the following at any time by contacting us via the email address or phone number given on our website:

- See what data we have about you if any.
- Change/correct any data we have about you.
- Have us delete any data we have about you.
- Express any concern you have about our use of your data.

Special Needs

The American Institute of Balance is committed to making our workshops accessible to individuals. If you have a disability or particular need and anticipate needing assistance while at the workshop, please contact us at 727-398-5728. Requests for reasonable accommodations at our workshops should be made as early as possible and in advance of the event so we can accommodate individual needs and requirements. Onsite requests will be accommodated to the best of our ability; however, available resources may be limited.

