

Course Description

Title:

Vestibular Rehabilitation: An Advanced Course and Update

Date:

May 7-8, 2021

Date of First Course: 2007

Most Recent Review: June 2020

Location:

Zoom Webinar

University of Pittsburgh

Target Audience:

Physical therapists, physicians, nurses, and physician assistants who have a basic knowledge of vestibular disorders.

Level of Learner:

Advanced

Program Overview:

Vestibular Rehabilitation: An Advanced Course and Update is designed to provide an update regarding the treatment of persons with balance/vestibular disorders and the underlying science. Some of the topics include central causes of dizziness (e.g. anxiety and migraine related dizziness), BPPV, concussion management, vestibular function testing, alternative therapies, pharmacotherapy, cervical dizziness, back to work and driving decisions, and innovative therapies for person with vestibular disorders. Each of the speakers is an expert from one of several disciplines including physical therapy, neurology, neuro-optometry, audiology, and psychiatry. There are scheduled question and answer periods following each session during which participants can ask the faculty questions.

Keynote speakers include Dr. Joseph Furman and Dr. Susan L. Whitney. Dr. Furman is co-director of the course and has numerous Medline references to his credit. He is co-author of the book entitled "Vestibular Disorders: A Case Oriented Approach" published by Oxford University Press. He has recently published the 3rd edition with Dr. Stephen Cass and Dr. Susan Whitney. Dr. Furman has been an NIH supported clinician-scientist his entire career and is a board-certified neurologist.

Dr. Whitney is a physical therapist who has published extensively. She has treated persons with vestibular disorders for over 30 years. She is an active clinical researcher and is actively involved in patient care. Drs. Furman and Whitney will provide a unique physician/physical therapist team perspective.

Criteria for Successful Completion:

- Evidence of attendance by record of the Zoom Webinar report or video recording report
- For Physical Therapists in US, completion of Post-test with a score of 70%

Vestibular Rehabilitation: An Advanced Course and Update

Schedule subject to change

All times in US Eastern Time (UTC – 4)

Friday, May 7, 2021

<https://pitt.zoom.us/j/97864120968>

passcode: 460740

Time	Speaker	Topic
08:45 – 09:30	None	Logging in and Troubleshooting
09:30 – 09:45	Course directors	Introduction of the Course Instruction on getting best online experience
09:45 – 10:20	Anthony Kontos, PhD Shawn Eagle, PhD	Vestibular and Balance Impairments after Concussion
10:20 – 11:00	Anne Mucha, DPT, MS, NCS	Vestibular Rehabilitation Following Concussion
11:00 – 11:15	Break	
11:15 – 11:40	Joseph Furman, MD, PhD	Central Vestibular Disorders and Central Compensation
11:40 – 12:10	Catherine Palmer, PhD	Hearing Challenges Relevant to Physical Therapists
12:10 – 12:45	Robert Kaniecki, MD	Headache for Physical Therapists
12:45 – 13:45	Extended Mid-day break	You may interact face-to-face with Dr. Furman or Dr. Whitney beginning at 13:15 Eastern time Joseph Furman: https://pitt.zoom.us/j/96489870540 Susan Whitney: https://pitt.zoom.us/j/92392731581
13:45 – 14:25	Nathan Steinhafel, OD, MS	Neuro-optometry Treatment for Ocular-motor Disorders
14:25 – 15:10	Joseph Furman, MD, PhD	Abnormal Eye Movements
15:10 – 15:45	Ryan Soose, MD	Sleep and Dizziness – Are They Related?
15:45 – 16:00	Break	
16:00 – 16:35	Brooke Klatt, DPT, PhD, NCS	Vestibular Contributions to Cognition
16:35 – 17:20	Joseph Furman, MD, PhD	Assessment of Visual Correction and Ocular Alignment
17:20 – 18:20	Susan Whitney, DPT, PhD, NCS	Newest Advances in Vestibular Rehabilitation: What will be coming to you soon
18:20	Adjournment	

Vestibular Rehabilitation: An Advanced Course and Update

Schedule subject to change

All times in US Eastern Time (UTC – 4)

Saturday, May 8, 2021

<https://pitt.zoom.us/j/95450494542>

passcode: 460740

Time	Speaker	Topic
09:00 – 09:30	None	Logging in and Troubleshooting
09:30 – 10:30	Susan Whitney, DPT, PhD, NCS	Benign Paroxysmal Positional Vertigo
10:30 – 10:55	Joseph Furman, MD, PhD	Medical and Surgical Management of Vestibular Disorders
10:55 – 11:10	Break	
11:10 – 11:50	Jeffrey Staab, MD, MS	Psychiatric Aspects of Vestibular Disorders
11:50 – 12:20	Carrie Hoppes, DPT, PhD, NCS	Cervicogenic Dizziness
12:20 – 12:50	Patrick Sparto, PT, PhD	Mobility and Aging
12:50 – 13:50	Extended Mid-day break	You may interact face-to-face with Dr. Furman or Dr. Whitney beginning at 13:20 Eastern time Dr. Furman: https://pitt.zoom.us/j/94111462105 Dr. Whitney: https://pitt.zoom.us/j/92226746384
13:50 – 14:25	Susan Whitney, DPT, PhD, NCS	Red Flags in Vestibular Clinical Practice
14:25 – 15:05	Jeffrey Staab, MD, MS	Persistent Postural-Perceptual Dizziness
15:05 – 15:45	Gregory Marchetti, PT, PhD	Occupational and Driving-Related Issues of Dizziness and Imbalance
15:45 – 16:00	Break	
16:00 – 16:20	Joseph Furman, MD, PhD	Vestibular Laboratory Testing
16:20 – 17:00	Susan Whitney, DPT, PhD, NCS	Advanced Clinical Decision-Making Cases
17:00 – 17:35	Pamela Dunlap, DPT, PhD, NCS	The Role of Vision in Vestibular Rehabilitation
17:35 – 18:05	Course Faculty	Question and Answer
18:05 – 18:20	Course Directors	Course Wrap-up
18:20	Adjournment	

Objectives

The participant will be able to:

1. Discuss concussion-induced impairments of balance and vestibular dysfunction, and understand the role of cognitive testing in return-to-play.
2. Describe the manifestations of vestibular, oculomotor, and visual sensitivity impairments after concussion, and ways to assess and treat these impairments.
3. Differentiate the different causes of central vestibular dysfunction.
4. Discuss the hearing loss may affect interactions with individuals with vestibular disorders, and how to best communicate with a person with hearing loss.
5. Compare and contrast the different types and treatment options available for someone with headache.
6. Compare the assessment techniques and treatment options for oculomotor dysfunction.
7. Recognize different oculomotor dysfunction, including vestibular nystagmus, in persons presenting with vestibular disorders.
8. Describe how sleep disorders, especially obstructive sleep apnea, interact with vestibular disorders and affect management of vestibular disorders.
9. Understand the interaction between cognitive function and vestibular disorders.
10. Perform routine bedside evaluation of oculomotor function.
11. Compare advances in treatment interventions for persons with vestibular disorders.
12. Discuss the most recent advances in BPPV management over the last 5 years.
13. Discuss medical and surgical management of chronic vestibular disorders.
14. Differentiate anxiety-related dizziness from other vestibular disorders and understand its management from a psychiatric perspective.
15. Recognize cervical dizziness with its typical signs and symptoms and discuss treatment options.
16. Understand the role of gait speed and mobility assessment in assessing overall health of older adults
17. Discuss the need for referral to other providers in direct access physical therapy settings.
18. Describe the clinical characteristics of Persistent Postural-Perceptual Dizziness.
19. Identify balance assessment tools that may be helpful in determining whether a person can return to work after a vestibular disorder, and understand how driving is affected by vestibular disorders.
20. Discuss new advances in assessing vestibular function, including VEMP and anterior canal head impulse testing.
21. Apply advanced decision making principles in the management of persons with vestibular disorders.
22. Summarize the central visual pathways and visual acuity disorders that impact rehabilitation.

Continuing Education Credit for Physical Therapists and Physical Therapist Assistants (CEUs will be updated on the day of course)

As an educational program accredited by CAPTE, the University of Pittsburgh, Department of Physical Therapy is a pre-approved provider of continuing education. The University of Pittsburgh, Department of Physical Therapy awards 15 Continuing Education Units for PTs and PTAs (12.5 General education units and 2.5 Direct Access units). PTs/PTAs are eligible for up to 15 contact hours or 1.5 CEUs toward licensure renewal.

Continuing education requirements are regulated by the state boards of physical therapy. Each state licensing board has its own policies and procedures related to continuing education of its licensees. State boards of physical therapy place the responsibility on licensees to follow rules and regulations related to the practice of physical therapy and maintenance of licensure in their states. Licensees should verify acceptance of continuing education courses with their state licensing board by reviewing the relevant state practice act.

PTs/PTAs will receive a certificate of completion that can be downloaded from the APTA Learning Center. Instructions will be provided.

CME Accreditation and Designation Statement:

In support of improving patient care, the University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician (CME)

The University of Pittsburgh designates this live activity for a maximum of 14.5 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

Faculty Listing

Pamela Dunlap, DPT, PhD, NCS

Post-doctoral Fellow, Department of Epidemiology
University of Pittsburgh
Pittsburgh, PA

Shawn Eagle, PhD, ATC, CSCS

Post-doctoral Fellow, Department of Orthopaedic Surgery
University of Pittsburgh
Pittsburgh, PA

Joseph M. Furman, MD, PhD, FAAN

Professor, Department of Otolaryngology
University of Pittsburgh
Director of the Division of Balance Disorders, University of Pittsburgh Medical Center
Pittsburgh, PA

LTC Carrie Hoppes, DPT, PhD, NCS, OCS, ATC, CSCS

Lieutenant Colonel, US Army
Deputy Program Director, Army-Baylor University Doctor of Physical Therapy Program
San Antonio, TX

Robert Kaniecki, MD

Associate Professor, Department of Neurology
University of Pittsburgh
Director, Headache Center, University of Pittsburgh Medical Center
Pittsburgh, PA

Brooke Klatt, DPT, PhD

Assistant Professor, Department of Physical Therapy
University of Pittsburgh
Pittsburgh, PA

Anthony Kontos, PhD

Director of Research, UPMC Sports Medicine Concussion Program
Professor, Department of Orthopaedic Surgery
University of Pittsburgh
Pittsburgh, PA

Gregory F. Marchetti, PT, PhD

Professor, Department of Physical Therapy
Duquesne University
Pittsburgh, PA

Anne Mucha, DPT, MS, NCS

Assistant Director of Neurological Services
Coordinator of Concussion Vestibular Programming for the Centers for Rehab Services
Centers for Rehab Services
Pittsburgh, PA

Catherine Palmer, PhD

Professor, Department of Communication Sciences and Disorders
University of Pittsburgh
Director, Division of Audiology and Hearing Aids, University of Pittsburgh Medical Center
Pittsburgh, PA

Ryan Soose, MD

Associate Professor, Department of Otolaryngology
University of Pittsburgh
Director, Division of Sleep Medicine and Upper Airway Surgery, University of Pittsburgh Medical Center
Pittsburgh, PA

Patrick J. Sparto, PT, PhD

Professor, Department of Physical Therapy
University of Pittsburgh
Pittsburgh, PA

Jeffrey P. Staab, MD, MS

Professor of Psychiatry
Mayo Clinic
Rochester, MN

Nathan Steinhafel, MS, OD, FAAO

Doctor of Optometry
Armstrong Eye Care Associates
Pittsburgh, PA

Susan L. Whitney, PT, PhD, NCS, FAPTA

Professor, Department of Physical Therapy
University of Pittsburgh
Pittsburgh, PA

FACULTY DISCLOSURE

All individuals in a position to control the content of this education activity including members of the planning committee, speakers, presenters, authors, and/or content reviewers have disclosed all relevant financial relationships with any proprietary entity producing, marketing, re-selling, or distributing health care goods or services, used on, or consumed by, patients.

The following relevant financial relationships were disclosed:

Carrie Hoppes, DPT, PhD: Employed by the US ARMY
Anthony Kontos, PhD: Grant/Research Support from the National Football League, Book Royalties from American Psychological Association
Anne Mucha, DPT, MS, NCS: Continuing Education Speakers Bureau, MedBridge Education, APTA
Ryan Soose, MD: Grant/Research Support, Inspire Medical Systems; Consultant, Inspire Medical Systems, Galvani Bioelectronics, Invicta Medical, Enhale Medical, Cryosa, Smith & Nephew
Jeffrey Staab, MD, MS: Consultant, Scientific Advisory Board, Inno.health, Denmark
Nathan Steinhafel, MS, OD, FAAO: Consultant, American Optometric Association, Pennsylvania Optometric Association; Continuing Education Speakers Bureau with Impact Technologies
Susan Whitney, PT, PhD: Grant/Research Support, Four Department of Defense grants and one SBIR NIH submission; Continuing Education Speakers Bureau with MedBridge Education and Interacoustics; Patent application with Intelligent Automation, Inc;

No other planners, members of the planning committee, speakers, presenters, authors, content reviewers and/or anyone else in a position to control the content of this education activity have relevant financial relationships to disclose.

DISCLAIMER STATEMENT

The information presented at this CME program represents the views and opinions of the individual presenters, and does not constitute the opinion or endorsement of, or promotion by, the UPMC Center for Continuing Education in the Health Sciences, UPMC / University of Pittsburgh Medical Center or Affiliates and University of Pittsburgh School of Medicine. Reasonable efforts have been taken intending for educational subject matter to be presented in a balanced, unbiased fashion and in compliance with regulatory requirements. However, each program attendee must always use his/her own personal and professional judgment when considering further application of this information, particularly as it may relate to patient diagnostic or treatment decisions including, without limitation, FDA-approved uses and any off-label uses.

The Center for Continuing Education and the sponsoring department do not certify that through participation in this program participants are competent to perform certain procedures or skills.

Acknowledgements:

The Course directors kindly thank all of the presenters who have devoted much time and interest toward this course. In addition, we thank everyone who works to make the Course a success. Finally, we are thankful for the generous support of the Departments of Physical Therapy and Otolaryngology at the University of Pittsburgh, Centers for Rehab Services of the UPMC, the American Physical Therapy Association, and the University of Pittsburgh School of Medicine Center for Continuing Education in the Health Sciences.

Speaker Biosketches:

Pamela Dunlap, DPT, PhD, NCS

Pamela Dunlap obtained her Bachelor of Science in Rehabilitation Science, her Doctor of Physical Therapy, and her PhD in Rehabilitation Science, all from the University of Pittsburgh. She is a Postdoctoral Research Fellow in the Department of Epidemiology at the Graduate School of Public Health at the University of Pittsburgh where she studies community mobility using GPS measures and outdoor environmental factors related to falls among older adults. Dr. Dunlap works clinically in outpatient neurologic and vestibular rehabilitation at UPMC Centers for Rehab Services in Pittsburgh, PA and is a board certified neurologic clinical specialist.

Dr. Dunlap is an employee of University of Pittsburgh and UPMC Centers for Rehab Services.

Shawn Eagle, PhD, ATC, CSCS

Shawn Eagle is a Post-doctoral Research Fellow in the Department of Orthopaedic Surgery. Dr. Eagle received his Ph.D. in Rehabilitation Science from the University of Pittsburgh in 2019. He currently works in the UPMC Sports Medicine Concussion Program, and his current fields of interest are enhancing our understanding and potential treatment strategies for the clinical sub-types of concussion, identifying risk factors for those sub-types, and improving return-to-play/duty protocols following recovery from concussion. Dr. Eagle has received funding from the American College of Sports Medicine and the National Athletic Trainers Association.

Dr. Eagle is an employee of the University of Pittsburgh.

Joseph M. Furman, MD, PhD, FAAN

Joseph Furman is a Professor in the Departments of Otolaryngology, Neurology, Bioengineering, and Physical Therapy at the University of Pittsburgh and director of the division of balance disorders at the University of Pittsburgh Medical Center. His education includes an M.D. and a Ph.D. in Bioengineering from the University of Pennsylvania, a residency in neurology at UCLA, and a fellowship in non-surgical otology at the University of Toronto. Dr. Furman's area of expertise is vestibular function and balance disorders. Dr. Furman is a board certified neurologist, a fellow of the American Academy of Neurology and a member of the American Neurological Association. Dr. Furman's clinical activities include the evaluation of patients with dizziness and disequilibrium and consultation neurology. Dr. Furman's research interests include vestibulo-ocular function in older persons, otolith-ocular reflexes, and migraine-related dizziness. Dr. Furman has received several NIH grants in these research areas and has published over 180 refereed articles.

Dr. Furman is an employee of the University of Pittsburgh and UPMC.

LTC Carrie Hoppes, DPT, PhD, NCS, OCS, ATC, CSCS

Lieutenant Colonel Carrie Hoppes is an Active Duty Army Physical Therapist and the Deputy Director of the Army-Baylor University Doctoral Program in Physical Therapy. She graduated from Lock Haven University of Pennsylvania in 2003 and the U.S. Army Baylor-University Doctoral Program in Physical Therapy is 2006. She completed her PhD in Rehabilitation Science in 2017 at the University of Pittsburgh. She leads Line of Research 3: Combat Trauma Management and Rehabilitation Research for the Army Medical Specialist Corps, which encompasses TBI and Psychological Health research. She is also a co-founder of the Military Vestibular Assessment and Rehabilitation Course.

Dr. Hoppes is an employee of the US Army.

Robert Kaniecki, MD

Robert Kaniecki is an Associate Professor of Neurology at the University of Pittsburgh. He graduated from the University of Notre Dame and attended the Washington University School of Medicine. Following his graduation, he completed his medical and neurology training at Barnes Hospital and Washington University, where he served as chief resident his final year. In 2000 he was appointed Director of the University of Pittsburgh Headache Center. Dr. Kaniecki has authored or co-authored numerous articles, book chapters, and abstracts. His research interests include patient satisfaction with headache treatments, neck pain associated with migraine headache, the overlap between tension and migraine headaches, and outpatient protocols designed to address chronic daily headache. Dr. Kaniecki is a member of numerous professional and scientific societies, including the American Headache Society, the National Headache Foundation, the International Headache Society and the Primary Care Network. Dr. Kaniecki is passionate about headache education and he commits significant time and energy into teaching primary care providers and specialists about headache patients and their management. He has received numerous teaching awards including the National Headache Foundation's Lectureship Award and was the recipient of the prestigious Headache Healthcare Provider of the Year from the National Headache Foundation.

Dr. Kaniecki is an employee of the University of Pittsburgh and UPMC.

Brooke Klatt, DPT, PhD, NCS

Brooke Klatt obtained her Bachelor of Science in Kinesiology from Penn State University, her clinical Doctorate of Physical Therapy from New York University, and her PhD in Rehabilitation Sciences from the University of Pittsburgh. She was a Postdoctoral Research Fellow at Johns Hopkins University School of Medicine in the Department of Otolaryngology - Head and Neck Surgery where she investigated the influence of vestibular impairment on spatial cognition. Dr. Klatt is currently an Assistant Professor in the Department of Physical Therapy at the University of Pittsburgh. She works clinically in outpatient neurologic and vestibular rehabilitation at UPMC Centers for Rehab Services in Pittsburgh, PA and is a board certified neurologic clinical specialist.

Dr. Klatt is an employee of University of Pittsburgh and UPMC Centers for Rehab Services.

Anthony P. Kontos, PhD

Anthony P. Kontos is Research Director for the UPMC Sports Medicine Concussion Program and Professor in the Departments of Orthopaedic Surgery and Sports Medicine and Rehabilitation at the University of Pittsburgh. He has specialized in concussion research for 16 years and has 300+ professional publications and 315+ professional presentations. His research is funded by the *Centers for Disease Control and Prevention, Department of Defense, National Institutes of Health, and National Football League* and focuses on risk factors; neurocognitive/neuromotor effects; psychological issues; active, precision treatments; and concussion in military, pediatric, and sport populations. Dr. Kontos is a fellow and past-president of the *Society for Sport, Exercise & Performance Psychology*, and a fellow of the *National Academy of Kinesiology, Association for Applied Sport Psychology, and Eastern Psychological Association*. He is also the lead co-author (with Dr. Collins) of *Concussion: A Clinical Profile Based Approach to Assessment and Treatment*.

Dr. Kontos is an employee of University of Pittsburgh.

Gregory F. Marchetti, PT, PhD, CPE

Greg Marchetti is a Professor in the Department of Physical Therapy at Duquesne University. Dr. Marchetti earned an entry level Physical Therapy degree from the University of Maryland and a Master of Science from the School of Health and Rehabilitation Sciences at the University of Pittsburgh. He holds a Ph.D. in epidemiology with an emphasis in non-communicable disease from the Graduate School of Public Health at the University of Pittsburgh. With expertise in epidemiology, measurement, data management and analysis, Dr. Marchetti has conducted research, published and presented nationally and internationally on the clinical measurement of gait and balance, disorders of balance and vestibular impairment, mild traumatic head injury, chronic disease, chronic pain management, health outcomes. He is a physical therapist for the Pittsburgh Catholic Charities Health Care System, a multidisciplinary service dedicated to the service of persons without access to health insurance. He is a certified professional ergonomist through the Board of Certification in Professional Ergonomics. He is on the editorial board of the Journal of Neurological Physical Therapy, and serves as peer reviewer for numerous academic publications. Dr. Marchetti is a member of the International Association for the Study of Pain and the American Conference of Governmental Industrial Hygienists.

Dr. Marchetti is an employee of Duquesne University.

Anne Mucha, PT, DPT, MS, NCS

Anne Mucha is the Coordinator of Vestibular Rehabilitation for the UPMC Sports Concussion Clinic and Centers for Rehab Services. She is a board certified clinical specialist in Neurologic Physical Therapy and a former facility director of the Balance/Vestibular Disorders Clinic at the Eye and Ear Institute. With over 20 years in treating individuals with neurologic conditions, she is also actively involved in clinical research related to the evaluation and management of patients following concussion. Dr. Mucha served as a member of the CDC panel of experts to develop clinical guidelines for diagnosis and management of mild traumatic brain injury among children and adolescents. She received her Bachelor's and Advanced Master's degrees in Physical Therapy from the University of Pittsburgh; and her Doctor of Physical Therapy degree from Temple University. Dr. Mucha is a national and international lecturer on topics related to concussion and is an adjunct faculty member in the School of Health and Rehabilitation Sciences at the University of Pittsburgh.

Dr. Mucha is an employee of the UPMC Centers for Rehab Services.

Catherine Palmer, PhD

Dr. Palmer is a Professor in the Department of Communication Science and Disorders at the University of Pittsburgh and serves as the Director of Audiology and Hearing Aids at the University of Pittsburgh Medical Center including the UPMC Children's Hospital. Dr. Palmer conducts research in the areas of auditory learning post hearing aid fitting, the relationship between hearing, cognitive health and health outcomes, and matching technology to individual needs. She has published over 80 articles and book chapters in these topic areas as well as provided over 100 national and international presentations. Dr. Palmer teaches the graduate level amplification courses at the University of Pittsburgh and serves as Editor-in-Chief of Seminars in Hearing. Dr. Palmer opened the Musicians' Hearing Center at the University of Pittsburgh Medical Center in 2003 and has focused a great deal of energy on community hearing health since that time. This work has included a partnership with the Pittsburgh Public Schools and the Pittsburgh Symphony that promotes hearing protection for young and professional musicians. Dr. Palmer has received awards for excellence in teaching and mentoring from the University of Pittsburgh.

Dr. Palmer is an employee of the University of Pittsburgh and UPMC.

Ryan Soose, MD

Dr. Soose is the Director of the Division of Sleep Medicine and Upper Airway Surgery and Associate Professor in the Department of Otolaryngology at the University of Pittsburgh School of Medicine. He earned his undergraduate degree from the University of Notre Dame and completed medical and surgical training at UPMC. Board-certified in both otolaryngology and sleep medicine, Dr. Soose specializes in the medical and surgical treatment of snoring and obstructive sleep apnea. His research includes 1) hypoglossal nerve stimulation for sleep apnea and 2) sleep disorders in head injury patients as part of TEAM-TBI. Dr. Soose has over 50 peer-reviewed publications.

Dr. Soose is an employee of the University of Pittsburgh and UPMC.

Patrick J. Sparto, PT, PhD

Patrick Sparto is a Professor in the Departments of Physical Therapy, Otolaryngology and Bioengineering. Dr. Sparto received his Ph.D. degree from Ohio State University in 1998. Dr. Sparto did his post-graduate work in the Department of Physical Therapy at the University of Pittsburgh from 1997-2000. He is the founding Co-Director of the DPT-PhD in Bioengineering program at Pitt. He works at the Centers for Rehab Services Vestibular Rehabilitation clinic and is active in the Academy of Neurologic Physical Therapy. Dr. Sparto's fields of interest include neuroimaging of balance and vestibular function, and management of vestibular disorders after concussion. Dr. Sparto has published over 100 refereed articles and has received funding from the NIH, and Department of Defense.

Dr. Sparto is an employee of the University of Pittsburgh and UPMC Centers for Rehab Services.

Jeffrey Staab, MD, MS

Jeffrey P. Staab, MD, MS is Professor of Psychiatry and Consultant in the Departments of Psychiatry and Psychology and Otorhinolaryngology – Head and Neck Surgery at Mayo Clinic, Rochester, MN. He received a BS in chemical engineering from Northwestern University, MD from the University of Pittsburgh, and MS in bioengineering from Carnegie-Mellon University, then completed his residency in psychiatry at the Walter Reed National Military Medical Center in Bethesda, MD. His research centers on problems at the interface of otology, neurology, and psychiatry. He is best known for investigations of chronic dizziness. He chaired the international committee of the Barany Society that defined persistent postural-perceptual dizziness (PPPD). He and his colleagues in the Mayo Integrated Neurovestibular Team evaluate and treat more than 2000 patients with vestibular and balance disorders each year.

Dr. Staab is an employee of the Mayo Clinic.

Nathan Steinhafel, MS, OD, FAAO

Doctor Nathan Steinhafel received a bachelor's degree from the University of Wisconsin and a Masters of Science degree in Neuro- Physiology from Brigham Young University. He obtained his Doctor of Optometry from the Southern California College of Optometry and received his clinical training from the Moran Eye Center, the Southwestern Eye Center, and Camp Pendleton Naval Hospital. He completed his residency at the University of Alabama at Birmingham in pediatric optometry, binocular vision, and vision rehabilitation, where he also served as a clinical instructor for ophthalmology and optometry residents. He served as clinical masked examiner for the Pediatric Eye Disease Investigator Group. He is a Fellow of the American Academy of Optometry with affiliation to the Neuro Optometry Section. He has been invited to lecture locally and nationally on the topic of visual and ocular outcomes following mild and traumatic brain injury. He is a clinician in private practice and specializes in the treatment of amblyopia, strabismus, visual dysfunction related to traumatic brain injury, vision therapy and rehabilitation.

Dr. Steinhafel is an employee of Armstrong Eye Care Associates.

Susan L. Whitney, PT, PhD, NCS, FAPTA

Susan Whitney is a Professor in the Departments of Physical Therapy and Otolaryngology. Dr. Whitney received her PhD in motor development/motor learning from the University of Pittsburgh and her professional physical therapy education from Temple University in Philadelphia, PA. Currently, she is a Professor in Physical Therapy in the School of Health and Rehabilitation Sciences and in the Department of Otolaryngology in the School of Medicine, University of Pittsburgh. Dr. Whitney is supported by an NIH SBIR grant and one from the Department of Defense. She has published over 120 refereed papers.

Dr. Whitney is an employee of the University of Pittsburgh, and UPMC Centers for Rehab Services.

UPMC
University of Pittsburgh School of Medicine
Center for Continuing Education in the Health Sciences

Vestibular Rehabilitation: An Advanced Course and Update
May 1 - 2, 2020
Zoom Webinar University of Pittsburgh
Pittsburgh, PA

This is not your official certificate.

How to receive your continuing education credit?

<https://cce.upmc.com/vestibular-rehabilitation>

This activity is approved for *AMA PRA Category 1 Credit™*. Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

The UPMC Center for Continuing Education in the Health Sciences (CCEHS) continuing education learning portal, <http://cce.upmc.com>, is used to register, claim and track your continuing education credits. Certificates will be available to download and stored for future reference. **Records are matched to users by email address.**

To receive credit, login and complete the course evaluation and/or claim credit on the CCEHS Learning Portal, <http://cce.upmc.com>. The activity is accessible in your [Pending Activities](#). If you are a new user, click [Register](#) to create a new account.

To answer common questions or for step by step instructions please visit the [FAQs](#) available on the CCEHS Learning Portal.