

Continuing Education at Northwestern University

The Department of Physical Therapy and Human Movement Sciences (DPTHMS) at Northwestern University is committed to providing high-quality continuing education programs that reflect the strengths of the DPTHMS academic and clinical community. The unique DPTHMS experience:

- actively engages the participant
- emphasizes critical thinking
- promotes clinical practice supported by evidence
- fosters life-long learning

The program is held on the Northwestern University, Feinberg School of Medicine's campus in the heart of Chicago's Michigan Avenue shopping and restaurant district, adjacent to the beautiful Lake Michigan lakefront, and steps away from Chicago's Millennium Park. The opportunity to enjoy the variety of Chicago's big-city activities is an additional reason to consider attending Continuing Education at Northwestern University.

Continuing Education Credit

The Illinois Chapter Continuing Education Approval Committee has certified that these courses meet the criteria for approval of continuing education offerings established by the Illinois Physical Therapy Association. CE Credit = 12 contact hours, 1.2 CEUs.

Location and Accommodations

The program will be held in the DPTHMS 7th floor classrooms. We are located at 645 N. Michigan Ave.; the entrance to the building is on Erie Street.

Maximum Enrollment = 70

Course Objectives:

At the conclusion of the course participants will:

1. Describe recent research identifying how constraints on different balance systems result in different types of balance deficits.
2. Summarize the main systems underlying control of balance and mobility
3. Be skilled in using the BESTest and the miniBESTest
4. Understand how to evaluate and treat dizziness and gaze deficits
5. Cite evidence for effectiveness of balance rehabilitation for neurological patients
6. Design specific, progressive exercise programs for balance problems associated with Parkinson's disease, vestibular and cerebellar ataxia, and other deficits.



Department of Physical Therapy and Human Movement Sciences
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Chicago, IL 60611

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Permit No. 205

Continuing Education

May 16-17, 2009

CONTINUING EDUCATION

Systems Balance Assessment to Rehabilitate Neurologic Patients



Department of Physical Therapy
and Human Movement Sciences
Feinberg School of Medicine

Course Overview

THEORY-BASED, RESEARCH DRIVEN, PRACTICAL CLINICAL IDEAS

This intermediate-advanced level course is designed for physical therapists working with patients who have balance and mobility deficits. Balance problems are the most common reason for falls and decreased quality of life. However, balance problems vary considerably across patients because balance control is based on many complex systems affected by disease or injury. It is important to evaluate the specific systems affected in each patient with a balance problem in order to develop effective treatments. However, current balance evaluation tests do not differentiate different types of balance problems. The purpose of this workshop is to develop skills in using a systems balance evaluation to differentiate complex balance disorders in neurological patients.

Dr. Horak has developed a Balance Evaluation Systems Test (BESTest) for clinicians to differentiate balance into 6 underlying systems that may constrain balance: Biomechanical, Stability Limits, Postural Responses, Anticipatory Postural Adjustments, Sensory Orientation, and Dynamic Balance during Gait and Cognitive Effects. This unique evaluation tool is appropriate for any age of ambulatory patients with Parkinson’s Disease, Cerebellar Ataxia, Vestibular Disorders, Neuropathy, Head Injury, Multiple Sclerosis, Stroke, Cerebral Palsy, Cognitive Deficits, and others. The BESTest is a sensitive, quantitative balance assessment that will improve third party reimbursement by identifying subtle deficits and changes with therapy.

Participants will learn how to use this BESTest evaluation to design more specific, effective rehabilitation treatments for balance retraining. This systems approach is useful for patients with very mild balance deficits as well as patients with very complex balance deficits. Examples from patients with Parkinson’s disease, vestibular disorders and cerebellar ataxia will be used to illustrate how different balance evaluations lead to different treatments. Use of the BESTest will give clinicians a new tool for quantifying balance and differentiating balance deficits to design more effective treatments.

References:

Horak, FB, Wrisley, D, and Frank, J, The Balance Evaluation Systems Test (BESTest) to differentiate balance deficits, Physical Therapy, in press
King, LA and Horak, FB, Agility Exercise Program for Parkinson’s Disease, Physical Therapy, in press

Faculty

Fay Bahling Horak, PhD

Dr. Horak is a professor of Neurology and Biomechanical Engineering at Oregon Health and Science University. She is director of the Balance Disorder’s Laboratory with several NIH and Foundation grants focused on developing new balance assessment tools and balance rehabilitation for neurological patients. She has over 150 research publications and was awarded a prestigious Merit Award from NIH. Dr. Horak also was awarded the Mary McMillian Research Award from the APTA and Research Awards from the Neurology and Pediatric Sections of the APTA. She is past-president of the International Society of Posture and Gait Research, organizer of the Rehabilitation Social for the Society for Neuroscience, and editor/reviewer for many prestigious neuroscience and rehabilitation journals. Dr. Horak developed the original ‘Vestibular Rehabilitation’ program, is considered the international expert on balance problems in Parkinson’s disease and provides clinical consultations on patients with complex balance disorders.

Course Schedule

DAY 1 Saturday, May 16

8:30-9:00 REGISTRATION AND CONTINENTAL BREAKFAST
9:00-9:15 Introduction
9:15-10:30 Systems for Postural Control: Research
10:30-10:45 BREAK
10:45-11:30 Intro to Balance Evaluation Systems Test (BESTest)
11:30-12:00 BESTest Educational DVD with video scoring examples
12:00-12:45 FIRST LUNCH / WORKSHOP TO PRACTICE BALANCE EVALUATION
12:45-1:30 SECOND LUNCH / WORKSHOP TO PRACTICE BALANCE EVALUATION
1:30-3:00 Balance systems affected in Parkinson’s Disease
3:00-3:15 BREAK
3:15-4:45 Balance systems affected by Vestibular Disorders and Ataxia
4:45-5:00 Questions

DAY 2 Sunday, May 17

8:30-9:00 CONTINENTAL BREAKFAST
9:00-10:30 Evaluation and Treatment of Dizziness
10:30-10:45 BREAK
10:45-12:00 Treatment of balance systems in Parkinson’s Disease
12:00-12:45 LUNCH
12:45-2:00 Treatment of balance systems in Vestibular Ataxia
2:00-2:45 Roundtable Work on Case Studies to Design Balance Exercises
2:45-3:00 BREAK
3:00-3:45 Reports on Systems-Specific Exercise Programs
3:45-4:00 Future research and clinical implications

Laurie King, PhD, PT

Dr. King is currently a post-doctoral fellow at Oregon Health Sciences University studying balance and Parkinson’s disease with Dr. Horak. She received her PhD d from Medical College of Virginia in Richmond, Virginia, in Anatomy and Neurobiology. Prior to that, she graduated from Mayo School of Heath Sciences in Rochester MN with a Masters in Physical Therapy. She has over 12 years clinical experience treating neurologically impaired patients. She helped to develop an agility-based sensorimotor exercise program for Parkinson’s disease and is coordinating a clinical trial comparing two, evidence-based rehabilitation programs for Parkinson’s disease. Additionally, she has expertise in using technology, such as gait analysis, motion analysis, dynamic posturography and inertial sensors for assessment and quantification of mobility.

REGISTRATION

The fees include all course materials, refreshments, and lunch on Day 1. Parking is available at \$7.00 per day.

Refunds: All cancellations must be in writing and received by May 4, 2009. DPTHMS reserves the right to cancel at any time.

Continuing Education Fees	by May 1	by May 13
Registration	\$ 425	\$ 450
Parking per day	\$ 7	\$ 7

Please complete and return this portion with your payment.

Course fee: \$ _____

Parking \$7.00/day \$ _____

Total: \$ _____

Name: _____

Degree: _____

Dayphone: _____

Email: _____

Address: _____

City _____ State _____ Zip _____

Payment

By Check (please make check payable to Northwestern University).
By Credit Card, please go to our website at www.feinberg.northwestern.edu/nupthms, under Continuing Education.

Return registration and payment to:

Kisha Johnson
NUPTHMS
645 N Michigan Avenue, Suite 1100, Chicago, IL 60611

For additional information, please visit our website or contact Bill Healey at b-healey@northwestern.edu or 312/503.3346.