Functional Mechanics of the Lumbopelvic Region and Lower Extremity

An Evidenced-Based Course
Presented by
Lukas Tvedt, PT, DPT, OCS
North American Seminars®
1-800-300-5512 | Fax 1-800-310-5920
www.healthclick.com
Responsible CME®

PT, PTA and AT - Continuing Education Course

Day One

7:30 8:00 Registration
8:00 8:30 Introduction
8:30 9:00 Importance of Clinical Assessment of Movement
• Functional movement analysis
• Use of technology in assessment
9:00 9:30 Red Flags
• Lower Quarter
• Lumbar
9:30 10:00 Lumbopelvic and Lower Extremity
• Anatomy and surrounding structures
• Identifying key structures
• Functional anatomy of the kinetic chain
10:00 10:15 Break
10:15 12:30 Biomechanics of the Lumbar Spine Hip and Lower Extremities-Differential Diagnosis (Lab)
• Gait Assessment - Systematic approach to gait assessment
• Lower extremity kinetics assessment
12:30 1:30 Lunch (on your own)
1:30 2:30 Pathomechanics of the Lumbar Spine
• Common overuse/acute spinal pathologies
• Proximal biomechanical factors in LE dysfunction
• Lumbar treatment classification system
2:30 4:00 Pathomechanics of the Hip and Lower Extremity (Lec/Lab)
• Foot and ankle: distal factors in LE injury
• Knee: Medial collapse and injury
• Hip: overuse injuries-biomechanical considerations
• Functional testing
4:00 4:15 Break
4:15 5:15 Differential Diagnosis Exam
• Implicating lumbar spine, hip or lower quarter dysfunction
• Lumbar assessment
• Hip/knee assessment
• Foot/ankle assessment
5:15 6:00 Patient Case: Athlete with Hip Pain

Day Two

8:00 9:30 Regional Interdependence
Introduction
• Connecting lower quarter dysfunction to LBP
• Hip weakness resulting in LBP
9:30 10:30 Lumbar Spine and SIJ Evidence Based Manual Therapy Approach
• Type I mechanics (neutral gaping)
• Type II mechanics (flexion/extension biased treatment)
10:30 10:45 Break
10:45 11:45 Manual Therapy Consideration for the Hip/Pelvic Region (Lab)
• Hip mobilizations: flexion, extension, rotations
11:45 12:15 Manual Therapy Consideration for the Lower Quarter (Lab)
• Knee mobility
• Foot and ankle mobilization
12:15 1:15 Lunch (on your own)
1:15 2:00 Lumbar Stabilization Group (Lab)
• Evidence Re: Lumbopelvic Stabilization
• Neuromuscular Re-Education/ Stabilization Concepts - Transversus Activation and Progressions
2:00 2:15 Break
2:15 3:15 Evidence Review: Hip Weakness Resulting in LE or Lumbar Dysfunction (Lec/Lab)
• Interventions Strategies for Lower Quarter Dysfunction
• Progressive Hip Stabilization Program:
  • Non-Weightbearing muscle activation activity
  • Weightbearing progressive LE stability program
Patient Case: Runner with Hip Bursitis and SIJ Dysfunction/LE
Closing Remarks:
Wrap-Up/Participant Surveys

Visit www.healthclick.com for the most current dates, locations and tuition.

This course is applicable for PT, PTA, AT. This course meets the continuing education requirements for physical therapists in the States of AK, AL, CO, CT, DE, DC, ID, IN, MA, MO, MT, NH, NC, OR, RI, SC, UT, VT, VA, WA, WI and WY. IL PT provider #216000074. This course meets the Colorado Physical Therapy Board of Examiners criteria for 15 hours, 15 Category-1 PDA points. This course meets the standards set forth in section 1599.96 of the California Code of Regulation and is approved for 15.0 hrs. 1.50 CEU's for physical therapy continuing competency license renewal requirements in the State of California. This course meets the ceu requirements specified in the Utah Physical Therapy Practice Act Rule. The New York State Education Department, Office of the Professions has approved NAS as a continuing education sponsor for physical therapists and assistants licensed in New York. This activity is provided by the Texas Board of Physical Therapy Examiners Accredited Provider #1907038TX and meets continuing competence requirements for physical therapist and physical therapists assistant licensure renewal in Texas for 15 ccu's.

North American Seminars, Inc. is an AOTA provider for continuing education, provider #4487. AOTA approval hours are 15. The AOTA does not endorse specific course content, products or clinical procedures. The AK, AR, DE, DC, IL, IN, KY, LA, MD, MN, MS, MO, MT, OH, OR, OK, PA, RI, SC, TN, TX, UT and WA occupational therapy regulatory boards accept courses presented by AOTA providers to meet the needs of OT continuing educational requirements. Additionally, this course meets the ceu requirements for OT’s licensed in AL, AZ, CA, CO, CT, FL, GA, HI, ID, KS, ME, MA, MI, NE, NJ, NY, ND, UT, WA, WV and WY. Meets the NBCOT requirements. BOC provider # P2047, 15hrs, category A, call for evidence-based approval status. Meets the NBCOT requirements. Call 800-300-5512 for specific state approval numbers as they are continually updated.
About the Educator

Dr. Tvet received his Bachelor of Science degree in Kinesiology with a minor in Psychology from California Polytechnic State University, in San Luis Obispo, CA, and a Doctor of Physical Therapy degree from the University of Southern California in Los Angeles, CA. As a licensed physical therapist, Dr. Tvet received from an APTA accredited Orthopaedic Clinical Residency, and has earned a board certification in the specialty of orthopaedics (OCS) through the American Board of Physical Therapy Specialties. He continues to be an active member of the American Physical Therapy Association, and remains a member of the Orthopaedic Section. While attending Cal Poly, SLO, Lukas conducted published research on the topic of Diabetic Peripheral Neuropathy. He continued to assist with his research throughout his medical education in the Motor Behavior and Motor Control Laboratory at USC. He has taught locally and nationally on the topics related to the treatment for the spine and sacroiliac joint, as well as the hip/lower extremity. Lukas also developed an anatomy & physiology based curriculum utilized internationally by a renowned Pilates organization for certification of its instructors. Lukas currently serves as a clinical mentor within an APTA accredited orthopaedic residency for licensed physical therapists seeking advanced clinical practice with Team Movement for Life, & the University of Southern California. Dr. Tvet has 8 years clinical experience in the outpatient realm. He is the clinic director at an outpatient private practice in Tucson, Arizona, and has experience treatingIndustrial/Tactical, & professional athletes, including MLB, Ballet Dancers, MMA, Tri-Athletes & Golf.

Outside the clinic, Lukas serves to raise money for local charities as a member of the Fiesta Bowl Committee and as a charter member of the Arizona Bowl Committee. Lukas, his wife Mandy, and their three sons Miles, Nolan, and Wyatt enjoy traveling and spending time with family and friends. He and his wife relocated to Tucson in 2007 and continue to enjoy all that Southern Arizona has to offer.

Why You Should Attend This Course

This two-day intermediate course provides you with the information and skills necessary to analyze the functional anatomy and mechanics of the lumbar spine and lower kinetic chain. Evidence-based research and up-to-date clinically-relevant techniques are presented.

Extensive laboratory sessions focus on differential diagnosis to rule out lumbar stenosis, lumbar facet dysfunction, lumbar strain, lumbar disc herniation, hip bursitis, gluteal tendinitis, patellar tendinitis, achilles tendinitis, plantar fasciitis as well as posterior tibialis tendon dysfunction. The manual therapy skills practiced will assist with promoting normal function while decreasing the potential risk of further injury. Differential diagnosis laboratory sessions, along with key examination techniques to analyze gait and functional mobility, will provide the essential skills needed to identify altered movement patterns within the ankle, knee, hip and lumbar spine. This approach demonstrates the importance of understanding how synergistic movement is necessary within the lumbar spine and lower extremities to maintain functional, healthy movement patterns and to avoid compensatory motions that can contribute to long-term injury.

The key to this course is a systematic approach to examination of the lumbar spine and lower extremity dysfunction. You will be presented with the tools necessary to approach dysfunction not only as an independent joint or musculoskeletal issue, but also as a possible contributor within the larger scope of the lumbar spine and lower kinetic chain. At the conclusion of the course, clinicians will understand how to perform a movement examination and apply critical thinking utilizing objective measurement tools to rule out specific dysfunction coming from the lumbar spine, hip and/or lower extremity regions. Critical results analysis will enable the clinician to develop progressive rehab programs to include manual therapy and specific exercise programs to promote optimal function.

You will learn a systematic approach to identifying movement limitations, and how to develop a comprehensive program that encompasses the synergistic movement patterns of the lumbar spine and lower kinetic chain to promote optimal function. Upon completion of this course, participants will be able to:

- Identify anatomical structures and normal biomechanical motion of the hip, lumbar spine and lower quarter.
- Apply etiological and physiological concepts as they pertain to the hip, lower quarter and lumbar spine function, including recognizing signs and symptoms associated with various conditions.
- Implement a systematic approach to gait assessment and describe common impairments throughout the lower kinetic chain that can lead to movement dysfunction.
- Develop and integrate an accurate treatment classification category into a comprehensive program for treatment of lumbopelvic disorders.
- Perform a differential diagnosis examination to rule out: lumbar stenosis, lumbar facet dysfunction, lumbar disc herniation, hip bursitis, gluteal tendinitis, patellar tendinitis, achilles tendonitis, plantar fasciitis, posterior tibialis tendon dysfunction.
- Plan and implement an evidence-based assessment for the lumbopelvic region and correlating structures based on a biomechanical assessment of the lower extremity and trunk.
- Justify and perform specific mobilizations to the lumbar spine and lower quarter.
- Develop a systematic approach that incorporates clinical reasoning skills and evidence-based research when analyzing the results from a movement analysis examination as it pertains to lower extremity and lumbar dysfunction.
- Develop progressive exercise programs to decrease pain and promote biomechanically optimal motion within the lumbar spine and lower quarter.

Additional Resource for Lumbar Spine

A Differential Diagnosis Approach to the Examination and Treatment of the Lumbar Spine and SI Joint

This online course presents the most current evidence-based information in the evaluation and treatment of the sacroiliac joint and lumbar spine. A great resource to combine with the live course.

Course Objectives

- Identify anatomical structures and normal biomechanical motion of the hip, lumbar spine and lower quarter.
- Apply etiological and physiological concepts as they pertain to the hip, lower quarter and lumbar spine function, including recognizing signs and symptoms associated with various conditions.
- Implement a systematic approach to gait assessment and describe common impairments throughout the lower kinetic chain that can lead to movement dysfunction.
- Develop and integrate an accurate treatment classification category into a comprehensive program for treatment of lumbopelvic disorders.
- Perform a differential diagnosis examination to rule out: lumbar stenosis, lumbar facet dysfunction, lumbar disc herniation, hip bursitis, gluteal tendinitis, patellar tendinitis, achilles tendonitis, plantar fasciitis, posterior tibialis tendon dysfunction.
- Plan and implement an evidence-based assessment for the lumbopelvic region and correlating structures based on a biomechanical assessment of the lower extremity and trunk.
- Justify and perform specific mobilizations to the lumbar spine and lower quarter.
- Develop a systematic approach that incorporates clinical reasoning skills and evidence-based research when analyzing the results from a movement analysis examination as it pertains to lower extremity and lumbar dysfunction.
- Develop progressive exercise programs to decrease pain and promote biomechanically optimal motion within the lumbar spine and lower quarter.