Movement Based Biomechanics

Lumbar & Thoracic Spine Applied

Course Objectives

1. Understand and identify the five ways to create motion at joints in the spine.
2. Describe and understand the bone and joint motion that occurs in the spine in both front leg and back leg of gait. Participants should be able to articulate specific biomechanics of the vertebrae and pelvis in all three planes of motion with both top down and bottom-up drivers.
3. Describe and understand the difference between type I and type II motion at the spine.
4. Perform functional tests and measures specific to the lumbar and thoracic spine to assess and treat spine dysfunction.
5. Properly perform manual techniques in functional positions to improve joint mobility, restore normal biomechanics and improve motor patterns at the spine.
6. Demonstrate proficiency with analyzing gait and identifying patterns at the spine and pelvis that may be contributing to pain and dysfunction.
7. Compare and contrast functional treatment techniques with current clinical practice guidelines and traditional treatment methods for spine dysfunction, specifically acute and chronic low back pain.
8. Create and design plan of care to address spine dysfunction using both tissue and movement diagnoses and the Movement Diagnosis System.
9. Understand connections between spine dysfunction with foot/ankle and/or hip dysfunction through consideration of the biomechanical kinetic chain.
10. Understand the importance of observational movement analysis in the treatment of the spine.