



**Curriculum of the Orthopaedic Division of the Canadian Physiotherapy Association
Diploma of Advanced Orthopaedic Manual and Manipulative Physiotherapy
Level 3 Lower Quadrant**

Course hours: 85 (83 instructional, 2 exam), completed over 12 days in classroom, or a combination of class hours with web based e-learning.

Purpose: To teach the principles, effects, rationale and practical application of advanced lower quadrant manual therapy assessment and treatment techniques for the lumbar spine, pelvis and lower extremities, developing an understanding of the interrelationship of proximal and distal tissues, and normal versus abnormal biomechanics. An emphasis will be placed on a clinical reasoning approach.

Objectives: At the completion of this course, the student will demonstrate competency in:

- Performance of a subjective and detailed manual therapy assessment including: palpation, active and passive physiological and accessory mobility tests with conjunct movements, and muscular, neuromeningeal and special tests for each region
- Analyzing and correcting static and dynamic postures of walking and running
- Integrating principles and practical application of advanced soft tissue and articular assessment and treatment procedures considering grade, direction, duration of techniques and expected effects
- Integrating principles and practical application of safe and effective high velocity manipulative procedures to specific lower quadrant peripheral and spinal joints
- Identifying indications and contraindications for all techniques; evaluating treatment effectiveness, making changes to progress or modify as appropriate
- Analyzing total examination data and integrating knowledge of normal and pathological biomechanics of the lower quadrant and well as knowledge of etiology and pathogenesis of benign mechanical and degenerative disorders of the lower quadrant into clinical reasoning to create a treatment rationale
- Understanding of evidence based practice in theory and practical applications including use of outcome measures, prognostic indicators, prevention programs and appropriate multidisciplinary referrals and communication in the presence of adverse or non-mechanical pathology.

Syllabus/Topics Covered:

- Articular and muscular biomechanics in the lower quadrant including the significance of gait, multijoint relationships (i.e. lumbo-pelvic-hip) and the thoracolumbar junction
- Myokinetics and myokinematics including definitions and principles of function and dysfunction of muscles and muscle fibers, including the roles of muscles in stability and mobility
- Assessment methods: palpation, active and passive physiological and accessory testing with conjunct movements, gait assessment and muscular, neuromeningeal and special tests for each area
- Consideration of objective findings as well as pain, spasm, endfeel in generating clinical impression
- Analysis using clinical reasoning and current evidence to determine indications and contraindications to treatment; appropriate treatment selection
- Clinical reasoning in the process of assimilating data to develop hypotheses, determine diagnosis, prognosis and treatment planning
- Understanding and treating acute and non-acute pathology of the lower quadrant including biomechanical syndromes, muscular dysfunction and imbalance, and articular disorders
- Utilization and grading of appropriate treatment techniques, given the pathology, prognosis and stage of healing, including active / passive physiological and accessory joint mobilizations and lower quadrant peripheral manipulations as well as advanced soft tissue techniques and exercise science.
- Principles of scientific inquiry, critical reading of research and current issues in Physiotherapy