



**Curriculum of the Orthopaedic Division of the Canadian Physiotherapy Association
Diploma of Advanced Orthopaedic Manual and Manipulative Physiotherapy
Level 3 Upper 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 upper quadrant manual therapy assessment and treatment techniques for the cervical spine, thorax, costal and temporomandibular joints and upper extremities, developing an understanding of the interrelationship of proximal and distal tissues, and normal versus abnormal biomechanics, emphasizing clinical reasoning.

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
- Understanding static and dynamic ergonomics and application to normal and pathological biomechanics of the upper quadrant
- 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 upper quadrant peripheral and spinal joints
- Identifying indications and contraindications for all techniques and 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 upper quadrant and well as knowledge of etiology and pathogenesis of benign mechanical and degenerative disorders of the upper quadrant into clinical reasoning to create a treatment rationale
- Understanding 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 anatomy and both normal and abnormal biomechanics in the upper quadrant including regional variations, and detailed discussion of the temporomandibular joint
- Myokinetics and myokinematics including definitions and principles of function and dysfunction of muscles and muscle fibers, and understanding 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. Directional stability and vertebral artery testing in the craniovertebral region
- 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 upper 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 and passive physiological and accessory joint mobilizations and thoracic and upper 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