



**Curriculum of the Orthopaedic Division of the Canadian Physiotherapy Association**  
**Diploma of Advanced Orthopaedic Manual and Manipulative Physiotherapy**  
**Level 2 Upper Quadrant**

**Course hours:** 85 (82 instructional, 3 exam), completed over 12 days

**Purpose:** To teach the current theories of biomechanics and the application of these biomechanics in the assessment and treatment of the upper quadrant including the peripheral joints, costal region, the cervical and thoracic spine. An emphasis will be placed on a clinical reasoning approach.

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

- use of biomechanical concepts and terminology including the osteokinematic, arthrokinematic, and neuromeningeal tension principles for the upper quadrant.
- applying this knowledge and clinical reasoning to assessment and in identifying presentation, clinical implications and management of pathology in the upper quadrant.
- integrating into clinical reasoning processes current knowledge on the origin and complications of benign mechanical and degenerative disorders of the upper quadrant.
- basic understanding of the influence of distal and proximal tissues (static and dynamic) on normal and pathological musculoskeletal states.
- applying theoretical principles to practical application of soft tissue and articular assessment / treatment procedures in the upper quadrant with attention to the correct grade, direction and duration of the technique and expected mechanical and physiological effects.
- integrating the principles and practical application of safe and effective high velocity manipulative procedures to specific upper quadrant peripheral joints.
- performance of standardized subjective and objective assessment; in assessing, analyzing and modifying dynamic and static postures; and in developing a home exercise program for clients.
- Principles of evidence based practice will be integrated into recording and analyzing data, and using clinical prediction rules and outcome measures where appropriate to assist in establishing a rationale for pathology and treatment.

**Syllabus/Topics Covered:**

- Anatomy and biomechanics (normal and abnormal) of the Upper Quadrant
- Surface anatomy, active and passive uniplanar and combined physiological and accessory mobility and stability tests in the upper quadrant (cervical, craniovertebral, shoulder girdle, elbow, wrist, hand).
- Relevant special tests of the upper quadrant joints, craniovertebral region (including introduction to vertebral artery testing, dizziness differentiation and cranial nerves), and neuromeningeal testing.
- Clinical reasoning concepts applied to the analysis of total examination data in diagnosis, hypothesis, treatment rationale and secondary referral.
- Theory and pathology of common musculoskeletal and non-biomechanical conditions, including indications and contra-indications to manual therapy treatment.
- Treatment theory and procedures for acute and non-acute conditions identifying general concepts and rationale.
- Treatment techniques including muscle energy techniques, manual traction, active and passive mobilization throughout range of motion, neuromeningeal mobilization, spinal care and manipulations (theory and practice in select peripheral joints).
- Current issues and scientific inquiry with discussion on evidence based practice.