

Course Instructor: Dr. Nader Maroufi

**Effective Exercise Therapy and Hands-on Techniques
for Whiplash Associated Minor Injuries**

Course Outline

Day 1	Topics	Type
2:00pm-2:10pm	Registration	
2:10pm-2:30pm	Introduction: -course objectives -Definition of Whiplash, incidence and prevalence (Canada), -Clinical course of WAD & prognostic indicators for poor functional recovery	Lecture
2:30pm-2:40pm	Pre-test	Quiz
2:40pm-3:00pm	An overview on anatomy and biomechanics of Cervical Complex	Lecture
3:00pm-3:30	Biomechanics of “Whiplash Injuries”: -Kinematics & tissue injuries for collisions from different directions	Lecture
3:30pm-3:45pm	Coffee Break	
3:45pm-4:15pm	Diagnosis process and WAD classification: -Quebec Task Force (QTF) Classification of WAD -Patient history and interview - The importance of using VAS, Neck Disability Index (NDI) and psychological questionnaires for monitoring recovery and prognosis	Lecture
4:15pm-5:15pm	Physical examination of WAD: a -Postural examination b -Palpation of bony landmarks and soft tissues of the cervico-thoraco-brachial region	Lecture & Practice
5:15pm-5:30pm	Coffee Break	
5:30pm-6:50pm	c - Active physiological MVT testing d - Respiratory MVT testing e - Passive MVT testing f - Sensory, motor, reflex tests g - Accessory intervertebral MVT testing and special tests????? *Physical Examination “ <i>Do’s and Don’ts</i> ” summary	Lecture & Practice
6:50pm-7:15pm	Why a significant number of whiplash patients develop into chronic stage with poor recovery? - Dysafferentation - Post-whiplash activation of myofascial trigger points - Peripheral & central hypersensitization - PTSD and other psychological issues	
Day 2	Topics	
8:30am-9:15am	Management Strategies for WAD: -Acute, subacute and chronic stages -Treatment “ <i>Do’s and Don’ts</i> ” summary	Lecture
9:15am-10:30am	Effective hands-on techniques (WAD grades1 & 2) for restoring pain-free cervical mobility and enhancing muscle function a -Gentle stretching exercises	Lecture & Practice
10:30am-10:45am	Coffee Break	

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10:45am-12:30pm	b- Myofascial Release Techniques (MFR) applied to trigger points c-Muscle Energy Techniques applied to cranio-cervical region and ribs 1&2	Lecture & Practice
12:30pm-1:00pm	Lunch Break	
1:00pm-2:45pm	Effective exercises (WAD grades 1 & 2) to control pain and improve function: a-Sensori-motor control of cervical spine b- Assessment of abnormal breathing pattern, cervical postural muscles and deep stabilizers, and scapular dyskinesia c- Cervical decompression through respiratory release and re-patterning	Lecture & Practice
2:45pm-3:00pm	Coffee Break	
3:00pm-5:00pm	d- Cervical segmental stabilization exercises e- Postural correction and scapular stabilization exercises f- Postural stability, balance and coordination exercises	Lecture & Practice
5:00pm-5:15pm	Recommended WAD pathways from guidelines: -Acute stage -Chronic stage	Lecture
5:15pm-5:45pm	Case Scenario (group discussion)	Discussion
5:45pm-5:55pm	Post-test	Quiz
6:00pm	Certificates	