

**Medical Exercise Therapy: Level 2 – Spine  
15 Contact Hours****Objectives**

The main objective of Level 2: M.E.T. Spine is for clinicians to obtain the skillset of implementing dosing, design and implementation strategies for spine (cervical, thoracic and lumbar) related therapeutic exercises. The course will help the clinician to integrate the principal of regional interdependence by using the concept of local / semi-global / global therapeutic exercises. Clinicians will acquire the knowledge of a three-dimensional approach to design therapeutic spine stabilization exercises.

With a balanced mix of lecture and lab practice, this course enables clinicians to immediately implement therapeutic exercises with high specificity of dose, design and delivery for the spine.

**Upon completion of this course the student will:**

- Direct therapeutic exercise design and dosing based on the knowledge of demographics, prevalence, prognosis of spine pathology, impairment and dysfunction.
- Direct therapeutic exercise design and dosing based on the knowledge of spine kinetics, kinematics and regional interdependence.
- Design spine stabilization exercises using a three-dimensional approach.
- Relate the term “un-loading” to therapeutic exercise design and dosing for the spine.
- Recognize the components of therapeutic exercise prescription for the spine.
- Recognize the cervical spine dosing exception rule.
- Operate a handheld dynamometer to facilitate the Clinical Fatigue Test spine related therapeutic exercises.
- Execute a Clinical Fatigue Test for spine related therapeutic exercises.
- Formulate an exercise prescription with high specificity.
- Dose therapeutic exercises utilizing different resistance equipment and body mass.
- Dose therapeutic exercises for strength, strength/endurance, endurance, power, symptom reduction, mobilization and stabilization.

**Recommended Pre – Course Reading**

- Bertozzi L, Gardenghi I, Turoni F, et al. Effect of therapeutic exercise on pain and disability in the management of chronic nonspecific neck pain: systematic review and meta-analysis of randomized trials. *Phys Ther.* 2013 Aug;93(8):1026-36.
- De Ridder EM, Van Oosterwijck JO, Vleeming A, Vanderstraeten GG, Danneels LA. Posterior muscle chain activity during various extension exercises: an observational study. *BMC Musculoskelet Disord.* 2013 Jul 9;14(1):204.
- Harris, Ian. *Surgery, The Ultimate Placebo: A Surgeon Cuts through the Evidence.* South Wales: University of New South Wales Press; 2016.

**Course Outline**

*All modules are a combination of lecture and lab*

**Day 1**

08.00 AM	Registration
08.15AM	The M.E.T. <b>MET</b> hology: Dosing – Design - Delivery
09.30 AM	Case Studies
10.30 AM	Break
10.45 PM	Biomechanics of the Spine: Considerations for Therapeutic Exercise Design
11.45 PM	Symptom Reduction Exercises for the Spine
12.45 PM	Lunch
01.30 PM	Mobilization Exercises: Manual Therapy Alignment, Design and Dosing
02.00 PM	Mobilization Exercises for the Spine
03.30 PM	Break
03.45 PM	Mobilization Exercises for the Spine - Continued
05.30PM	Adjourn

**Day 2**

07.45 AM	Check-in
08.00 AM	Stabilization and Functional Integration: Therapeutic Exercise design considerations
10.00 AM	Break
10.15 AM	Strength Exercises for the Spine
12.00 PM	Lunch
12.45 PM	Case-studies and Theoretical Post – Course Interaction
04.00 PM	Adjourn