Integrated Kinetic Neurology Approach Level 2

Day 1:

9-10:30am

- Neurology of adaptation, intention, self-organization, and load tolerance
- Centralized vs de-centralized/bottom-up approach
- Importance of peripheral tissues, synergy patterns, and spinal cord reflexes for motor control
- The influence of de-centralized control on protective output such as pain & hypertonicity
- Neurology of graded exposure and how to approach the midline structures & limbs with pain and movement issues

10:45-1:30pm (Practical breakout for each section)

- ***Upper limb assessment & integration***
- Kinetic chain load capacity testing (Intra vs intermuscular coordination)
- Cerebellar assessments to identify poor directional motor output
- Upper-limb force transmission vs postural control
- Low-load directional decelerative assessments & integration for the upper limb

2:30pm-4pm (practical breakout for each section)

- Neural load capacity testing and integration (importance of joint drivers and position)
- Sensory layering principles and designing treatment plans/progressions
- ***Lower Limb assessment & integration***
- How to utilize neurological reflexes to develop subconscious control of lower limb tissues
- Importance of developing a "listening foot" for force transmission

4:15-5:30pm (practical breakout for each section)

- Lower-limb kinetic chain load capacity testing (Intra vs intermuscular coordination)
- Cerebellar assessments to identify poor directional motor output
- Lower-limb force transmission vs postural control
- Low-load directional decelerative assessment & integration of the lower limb
- Neural load capacity testing and integration (importance of joint drivers and position)
- Sensory layering principles and designing treatment plans/progressions

Day 2:

9am-10am

- Review/Case examples using day 1 practical material

10:30am-1:30pm (Practical breakout for each section)

- ***Midline assessment & integration***
- Advanced sensory system load capacity testing & Integration (oculomotor, vestibular, cerebellum, brainstem)
- Head, Arms, and Trunk (HAT) integration with lower extremity proprioceptive reflexes
- Advanced ribcage assessment & integration strategies
- Importance of lower limb "support moment synergy" for hip & lower back pain presentations
- Using breathing to improve mechanoreceptive feedback for improve midline control/awareness
- Midline & limb layering proprioceptive loading strategies

2:30pm-5:30pm (Practical breakout for each section)

- The four stages of rehab, and what each stage should encompass
- Seven key ways to change any movement to allow for self-organization
- Multiple examples of combining drills and sequences for different presentations
- Importance of self-organization towards gait & how to leverage during rehab
- Review and case scenarios of upper limb, lower limb, and midline presentations