



KC MOVEMENT MODULE

Muscle Synergies

Targeting muscle synergies to optimise movement retraining for the low back & hip

Cairo-Egypt
7-8 December 2018

COURSE INTRODUCTION

This module develops clinicians' ability to exert the greatest change on their patients' movement, chance of recurrence and function by focusing upon muscle synergies of the low back and hip. Literature is increasingly identifying the relationship between muscle synergies and altered movement quality in the presence of pain, a history of pain and compromised function. The course gives clinicians the skillset, the understanding and a systemized framework to efficiently facilitate changes in muscle synergies so as to reverse the frequently observed recruitment impairments. Clinical tools of assessment and movement retraining are directed towards altering contributions of synergistic muscles, a process ensuring patients can move through each day with a more optimal set of movement patterns, meeting the demands of function without pain and a reduced chance of recurrence.

COURSE OVERVIEW

The main focus of this course is to enhance clinicians' abilities to change their patients' muscle synergies to reduce pain, the effects of pathology, and the impact of compromised function., A systemized framework of movement management is presented and applied, including a model of muscle synergy classification. This model helps steer clinical decision making, retraining design and delivery and patients' long-term outcomes.

Clinicians gain an enhanced ability to analyse and subsequently alter muscle synergies. As all functional movement utilises synergistic patterns, the clinical value of this course's content is to supply the tools to positively influence multi-joint in function.

KEY FEATURES

- Enhances ability to assess and retrain muscle synergies associated to pain, pathology and compromised function of the low back and hip
- Develops clinicians' cueing and facilitation skill set to positively impact movement impairments attributable to altered muscle synergies
- Supplies clinical skills to give patients strategies to reduce recurrence and maintain function
- Gives therapists the skills, tools and understanding to choose movement assessment and retraining as the clinical intervention of choice

LEARNING OUTCOMES

At the end of this course the participant should be able to:

- Demonstrate the skills allowing them to change patients' movement through the assessment and retraining of muscle synergies
- Relate muscle synergy recruitment patterns to pain, recurrence and compromised function
- Demonstrate an ability to assess muscle synergy efficiency
- Demonstrate an ability to retrain muscle synergy efficiency
- Demonstrate the ability to assess for loss of extensibility and aberrant recruitment substitutions of dominant synergists
- Display options for movement retraining in addition to acquiring the ability to match the level of retraining to your patient's abilities and goals
- Operate within a structured clinical reasoning framework to help patients achieve their outcomes

PROGRAMME OUTLINE

- Practical workshops to enhance movement assessment and retraining proficiency within clinical environments: to include global stabiliser muscles - oblique abdominals, multifidus and spinalis, gluteus maximus, medius and minimus, iliacus, psoas, short adductors. Global mobiliser muscles – rectus abdominis, quadratus lumborum, erector spinae, latissimus, hamstrings, superficial gluteus maximus tensor fascia lata, rectus femoris, sartorius, gracilis & adductor longus
- Practically applies principles of muscle synergy management to target mechanisms associated with patients' movement impairments

- Supplies clinical relevance to the functional roles of muscle synergies
- Explores the relationship between muscle synergies and the presence of pain, pathology, and compromised function
- Supplies clinical value to the analysis and management of restriction and movement impairments
- Presents multi-factorial rating criteria to assess efficiency of muscle synergies
- Presents multi-factorial muscle synergy classification model to support clinical reasoning and intervention
- Retraining options and progressions for global stabiliser retraining at the low back and hip
- Cognitive recruitment efficiency solutions for movement control impairments of the low back and hip
- Matching recruitment efficiency retraining to the client's / patient's goals and priorities

PROGRAM

DAY 1

9.00 - 10.30	<ul style="list-style-type: none">• Synergies, Anatomy and function of muscles, Physiological and neurophysiological considerations, Movement impairments and restrictions
10.30 -10.50	<ul style="list-style-type: none">• Coffee
10.50 - 12.30	<ul style="list-style-type: none">• Assessing the efficiency of the global stability muscles – theory & practical
12.30 - 13.30	<ul style="list-style-type: none">• Lunch
13.30 - 15.00	<ul style="list-style-type: none">• Muscle specific assessment and retraining of the global stability muscles
15.00 - 15.20	<ul style="list-style-type: none">• Tea
15.20 – 17.00	<ul style="list-style-type: none">• Continue

DAY 2

9.00 – 10.30	<ul style="list-style-type: none">• Muscle specific assessment and retraining of the global stability muscles
10.30 - 10.50	<ul style="list-style-type: none">• Coffee
10.50– 12.30	<ul style="list-style-type: none">• Assessing the efficiency of the global mobility muscles – theory & practical
12.30 - 13.30	<ul style="list-style-type: none">• Lunch
13.30 - 15.00	<ul style="list-style-type: none">• Cognitive Motor Control Retraining
15.00 - 15.20	<ul style="list-style-type: none">• Tea
15.30 – 16.00 /17.00	<ul style="list-style-type: none">• Matching movement retraining solutions to the client's / patient's goals and priorities.• Where next?

(Program subject to change)

PROGRAM TUTOR

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As an international educator, clinician and researcher Sarah Mottram continues to make significant contributions to the development and ongoing emergence of the 'Movement Health' philosophy, now endorsed by influential organizations and individuals within the movement based field. She is the author of Kinetic Control: The management of uncontrolled movement (Elsevier 2012) and has contributed to many publications in the field of kinetic control.