



## **KC MOVEMENT MODULE**

### Co-ordination Efficiency

## Multi-joint synergies in alignment and coordination

**Cairo-Egypt**

**5-6 December 2018**

#### **COURSE INTRODUCTION**

This module evaluates movement patterns to help change muscle function associated to pain, pathology and compromised function. This evaluation helps therapists towards establishing a more optimised movement system for their patients. The observation and analysis of patterns of muscle synergies in functional tasks is examined and options for retraining more efficient movement strategies are presented.

#### **COURSE OVERVIEW**

The main focus of this course is to explore functional activities and tasks in patients. Understanding muscle actions and observing synergist activation patterns can inform clinicians of movement patterns associated with pain and impaired function. Directed cueing for facilitation of more optimal patterns are developed in practical workshops. The clinical value of these skills are both immediate and long term improvements in function and pain. The process, clearly directs therapists towards an effective means of managing movement and alignment, so that individuals may pursue pain free lives, avoiding recurrence and secondary complaints.

## KEY FEATURES

- Enhances ability to assess muscle function through observation of patients' movement patterns during functional tasks.
- Develops clinicians' teaching and cueing skill set of their patients' movement patterns to influence muscle function associated with pain, pathology and compromised function.
- Combines classic and contemporary evaluation methods with Kinetic Control's world renowned and innovative movement assessment and retraining.
- Gives clinicians the ability to choose movement assessment and retraining as the intervention of choice.

## LEARNING OUTCOMES

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

- Display an understanding of the relationship between movement patterns, postural alignment and muscle synergies in functional tasks
- Demonstrate the ability to apply a muscle synergy classification model to multi-joint movement challenges
- Demonstrate the ability to assess the efficiency of alignment and movement patterns so as to reduce pain, the impact of pathology and improve function.
- Display an ability to classify individuals into relevant alignment and movement pattern subgroups for the low back, the hip, the neck and the shoulder
- Display an ability to deliver movement intervention strategies to minimise the negative causes or consequences of alignment change and inefficient movement patterns
- Identify how assessment, analysis and retraining of alignment and movement patterns can be integrated in to their clinical practice

## PROGRAMME OUTLINE

- How lost 'choices' in movement impact synergies and function
- The value of evaluating movement and what it tells us about recruitment patterns between synergists
- Assessing pattern of movement in functional activities
- The value of both static and dynamic alignment in respect to muscle synergies
- Detailed analysis of muscle function and patterns and changes associated with pain and impaired function
- Practical workshops to enhance cueing to facilitate of more optimal patterns for immediate and long term improvements in function and pain
- The implication of pain of recruitment thresholds and recruitment synergies
- Muscle classification and the implication of muscle roles for movement control and co-ordination
- Muscle synergy function on alignment at low back and pelvis, hip, neck and shoulder
- Synergistic patterns in functional activities

## PROGRAM

### DAY 1

9.00 - 10.30	<ul style="list-style-type: none"><li>• Introductions</li><li>• Alignment evaluation and muscle synergies – connecting through evaluation</li><li>• Traditional and contemporary evaluation</li></ul>
10.30 -10.50	<ul style="list-style-type: none"><li>• Coffee</li></ul>
10.50 - 12.30	<ul style="list-style-type: none"><li>• Alignment and Choice (implications of changes in muscle function)</li><li>• Muscle classification</li></ul>
12.30 - 13.30	<ul style="list-style-type: none"><li>• Lunch</li></ul>
13.30 - 15.00	<ul style="list-style-type: none"><li>• Lumbo-Pelvic &amp; Hip Muscle Influence on Alignment &amp; Posture</li><li>• Workshop: Assessing pattern of movement in functional activities</li><li>• Facilitation and retraining</li></ul>
15.00 - 15.20	<ul style="list-style-type: none"><li>• Tea</li></ul>
15.20 – 17.00	<ul style="list-style-type: none"><li>• Continue</li></ul>

### DAY 2

9.00 – 10.30	<ul style="list-style-type: none"><li>• Hip Muscle Influence on Alignment &amp; Posture Workshop: Assessing pattern of movement in functional activities</li><li>• Facilitation and retraining</li></ul>
10.30 - 10.50	<ul style="list-style-type: none"><li>• Coffee</li></ul>
10.50– 12.30	<ul style="list-style-type: none"><li>• Neck Muscle Influence on Alignment &amp; Posture</li><li>• Workshop: Assessing pattern of movement in functional activities</li><li>• Facilitation and retraining</li></ul>
12.30 - 13.30	<ul style="list-style-type: none"><li>• Lunch</li></ul>
13.30 - 15.00	<ul style="list-style-type: none"><li>• Shoulder Muscle Influence on Alignment &amp; Posture</li><li>• Workshop: Assessing pattern of movement in functional activities</li><li>• Facilitation and retraining</li></ul>
15.00 - 15.20	<ul style="list-style-type: none"><li>• Tea</li></ul>
15.30 – 16.00 /17.00	<ul style="list-style-type: none"><li>• Synergistic patterns, clinical presentations, relevance and application to clinical practice and</li><li>• Where next?</li></ul>

(Program subject to change)

## PROGRAM TUTOR

SARAH MOTTRAM, MSC MCSP MMACP



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.