



## MODULE 4: MUSCLE SYNERGIES TARGETING MUSCLE SYNERGIES TO OPTIMISE MOVEMENT RETRAINING FOR THE LOW BACK & HIP

**Jeddah- KSA**  
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### **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 skillset 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

## Program Tutor

### KOEN SCHOOLMEESTERS

Koen joined Kinetic Control in 2002 and has trained to become a Kinetic Control Accredited Tutor. Since 2006 he has been teaching Kinetic Control courses in both Holland and Belgium.

Koen is a musculoskeletal physiotherapist based in Gelrode, Belgium, completing his Masters degree in 1990 at the University of Leuven and continuing postgraduate education in Sports Physiotherapy. Since then he has consolidated and expanded his knowledge with an extensive program of musculoskeletal rehabilitation courses. Additionally, he has also completed his manipulative therapy studies at SOMT in the Netherlands.

