

## Learning Objectives

MedBridge

*Global Dynamic Functional Stability for the Hip & Pelvis*

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### Course Objectives:

- Understand the components involved during the rapid rotary collapse of the lower extremity during single limb loading response.
- Differentiate between concentric energy generation and eccentric rotary control during loading response.
- Discuss the evidence related to the use of a proximal control approach in controlling lower extremity alignment.
- Understand the search parameters used to identify the current evidence of hip focused exercise programs.
- Identify the 8 elements that are needed in a hip focused therapeutic exercise program to reach Global Dynamic Functional Stability.
- Describe the multifactorial representation of the modifiable components of a therapeutic exercise program that represent common elements of athletic performance.
- Define what is meant by Global Dynamic Functional Stability.
- Describe all the elements that are contained within the Global Dynamic Functional Stability paradigm.
- Understand what is meant by a dynamic system and why integrated elements are needed to reach a global impact on dynamic functional athletic movement.
- Define what the concept of tensegrity is and how it would impact therapeutic exercise design.
- Understand and appreciate the current evidence supporting the concept of tensegrity and the human kinetic chain.
- Discuss the clinical implications of adopting a globally connected kinetic chain paradigm and how it would impact the sports rehabilitation specialist.

### Chapter 1: Review of the Proximal Control Therapeutic Exercises

The role of the hip during a proximal control rehabilitation program will be discussed. The most current systematic review evidence supporting the use of a proximal control approach will be reviewed.

## **Chapter 2: Exercise Descriptions of Proximal Control Programs**

The specific exercises that are included in current evidence based hip focused programs will be discussed. The various components involved in the Global Dynamic Functional Stability paradigm will be outlined.

## **Chapter 3: Global Dynamic Functional Stability**

The concept of Global Dynamic Functional Stability is described and defined. The specific elements comprised within this concept are clearly illustrated and compared to the current evidence related to hip focused therapeutic exercise programs.

## **Chapter 4: Tensegrity and the Kinetic Chain**

The concept of tensegrity and its impact on the kinetic chain is discussed. The current evidence supporting the idea of tensegrity is provided and how it pertains to human movement. The chapter concludes with the clinical implications of adopting the idea of a globally connected polyarticular kinetic chain.