

KINETIC CHAIN COMPONENTS

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Myofascial System Articular System Neural System Sensorimotor Integration

CORE STABILIZATION TRAINING

A weak core is a fundamental problem of inefficient movements, which lead to injury. Focus on TA(transverse abdominus)/ IO(internal obliques).

Drawing in maneuver to engage TA/IO

DYNAMIC NEUROMUSCULAR STABILIZATION TRAINING

Most performance errors and injuries occur in force reduction (deceleration) or stopping

All Functional Movement requires DECELERATION, STABILIZATION & ACCELERATION in all 3 planes (see below)

If you cannot decelerate efficiently, you cannot accelerate efficiently as a result you cannot dynamically stabilize

The more efficient you are in eccentric deceleration, the more efficient you are in performance

Decreased Neuromuscular Efficiency is a function of Poor Posture(subluxation), Muscle Imbalance & Pattern Overload which results in Decreased Performance, Tissue Overload, Injury & Decreased Recoverability

DYNAMIC 3-DIMENSIONAL FLEXIBILITY TRAINING

***MULTI-PLANAR / MULTI-DIRECTIONAL TRAINING**

FUNCTIONAL STRENGTH DEVELOPMENT

Proprioception or Balance development prior to strength development

Core strength prior to extremity strength. Engage TA/IO prior to movt.

Priority is Proprioception and Core Strength because extremity injury is a function of a weak core & proprioception causing a Force Reduction Injury

**Therefore, a functional training and/or rehabilitation program
MUST BE:**

*Multi-Planar, *Multi-Joint(Triple Extension),
*Proprioceptively Enriched, *Activity Specific, *Systematic

**TRADITIONAL ABDOMINAL CRUNCH OR FULL SIT UPS
ABDOMINAL RESISTANCE WEIGHT MACHINES
ARTICULATED SIT UP BENCHES**

Drawbacks:

Increased L/S compressive pressure via psoas activation
Increased intradiscal pressure
Risk of Ligamentum Flavum buckling due to chronic flexion

LONG LEVER CRUNCH

Benefits:

Activates the deep core muscles(mm) that corset the lumbar
spine/TA(transverse abdominus) & IO(internal obliques)
To be performed with Navel Draw in Maneuver
Best performed on Physio/Stability Ball

NOTE:

Sit ups and/or crunches alone do not create a six pack abdominal wall.
Genetics and proper functional nutrition do.

***MULTI-PLANAR**

3 basic reference planes are used in anatomy that describe the axis along
which an action is performed. They are:

SAGITTAL(lateral plane) that divides the body into left and right portions

CORONAL(frontal plane) that divides the body into dorsal and ventral
portions (back and front or posterior and anterior)

TRANSVERSE(horizontal plane) or Cross Section that divides the body
into "top half" and "bottom half" at navel or cranial and caudal portions