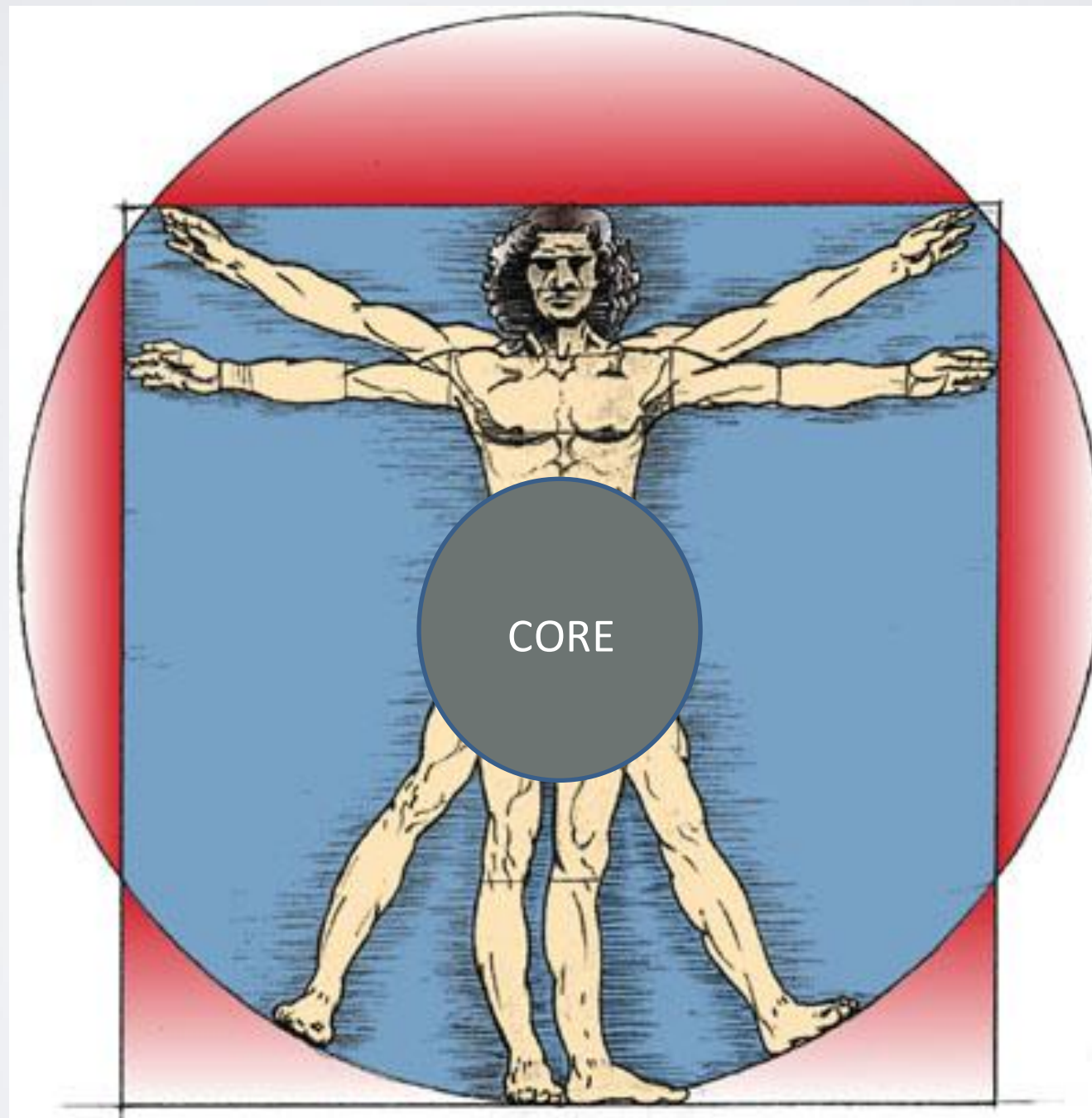


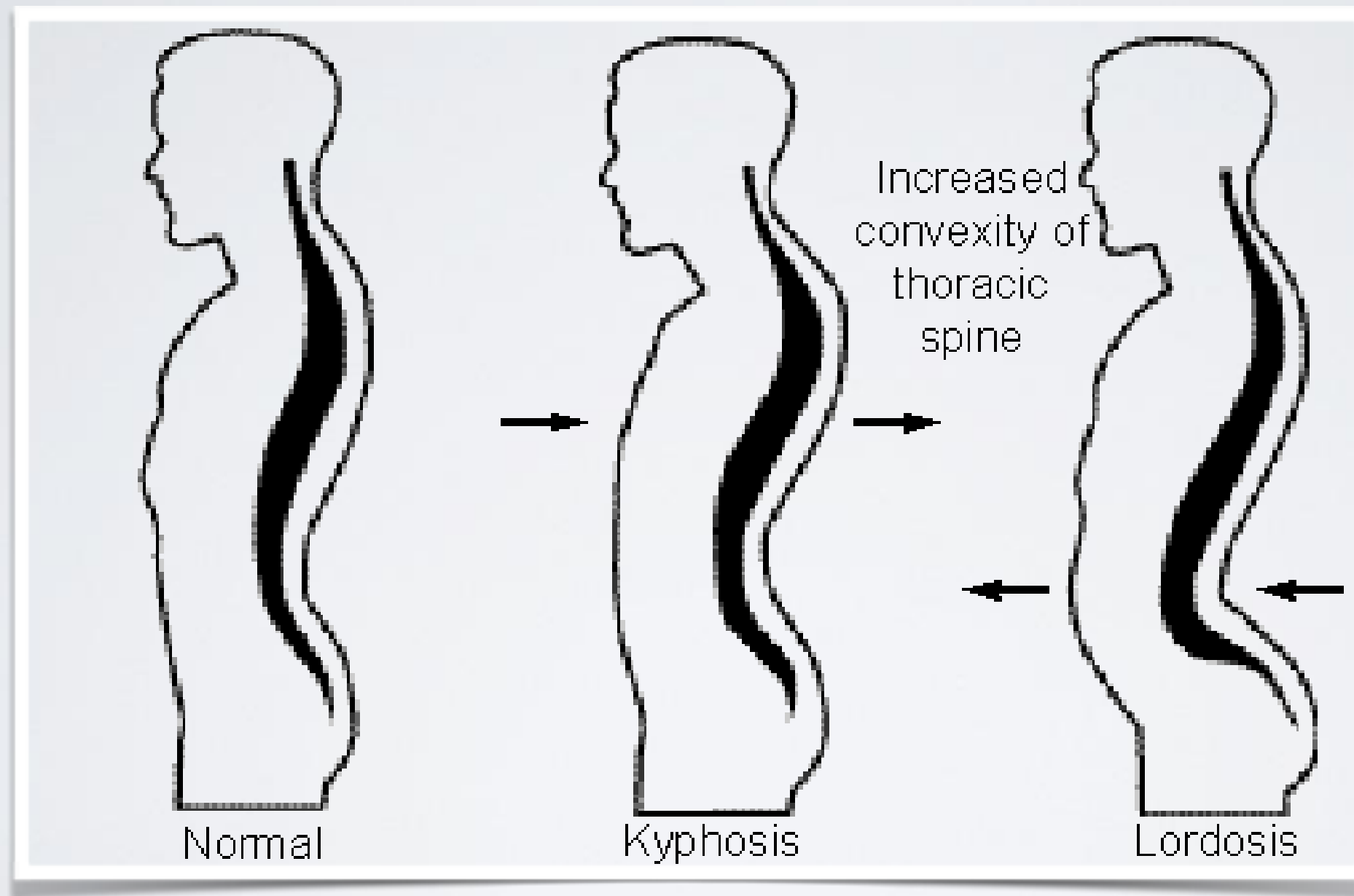
# The Core: The Key to Unlocking Pain Free Movement

Robb Rogers

Core Defined: Roughly the Area From the Mid-Chest to Mid-Thigh **360 degrees around the torso**  
(including the BACK!)

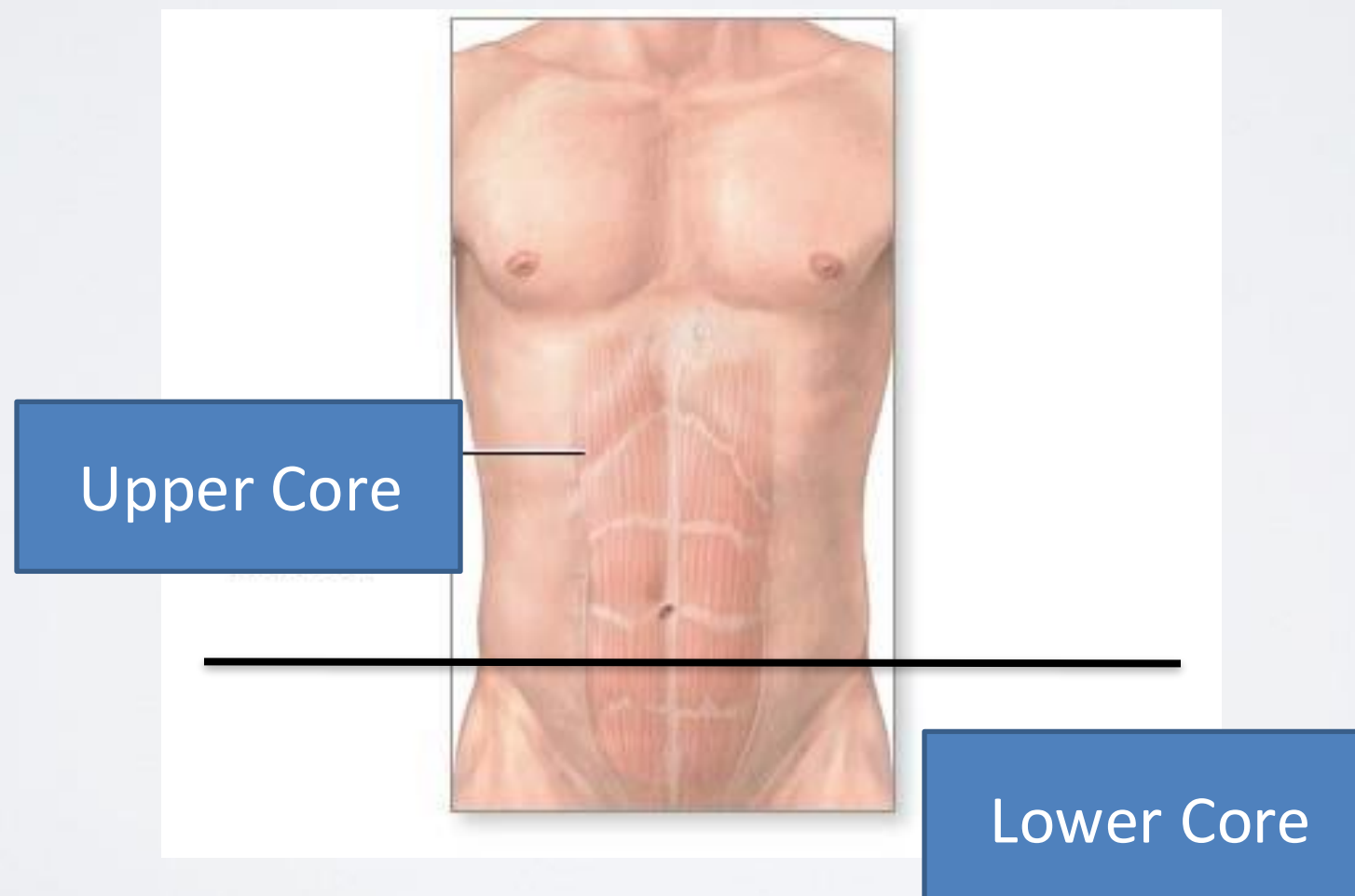


# What is YOUR Neutral Spine?



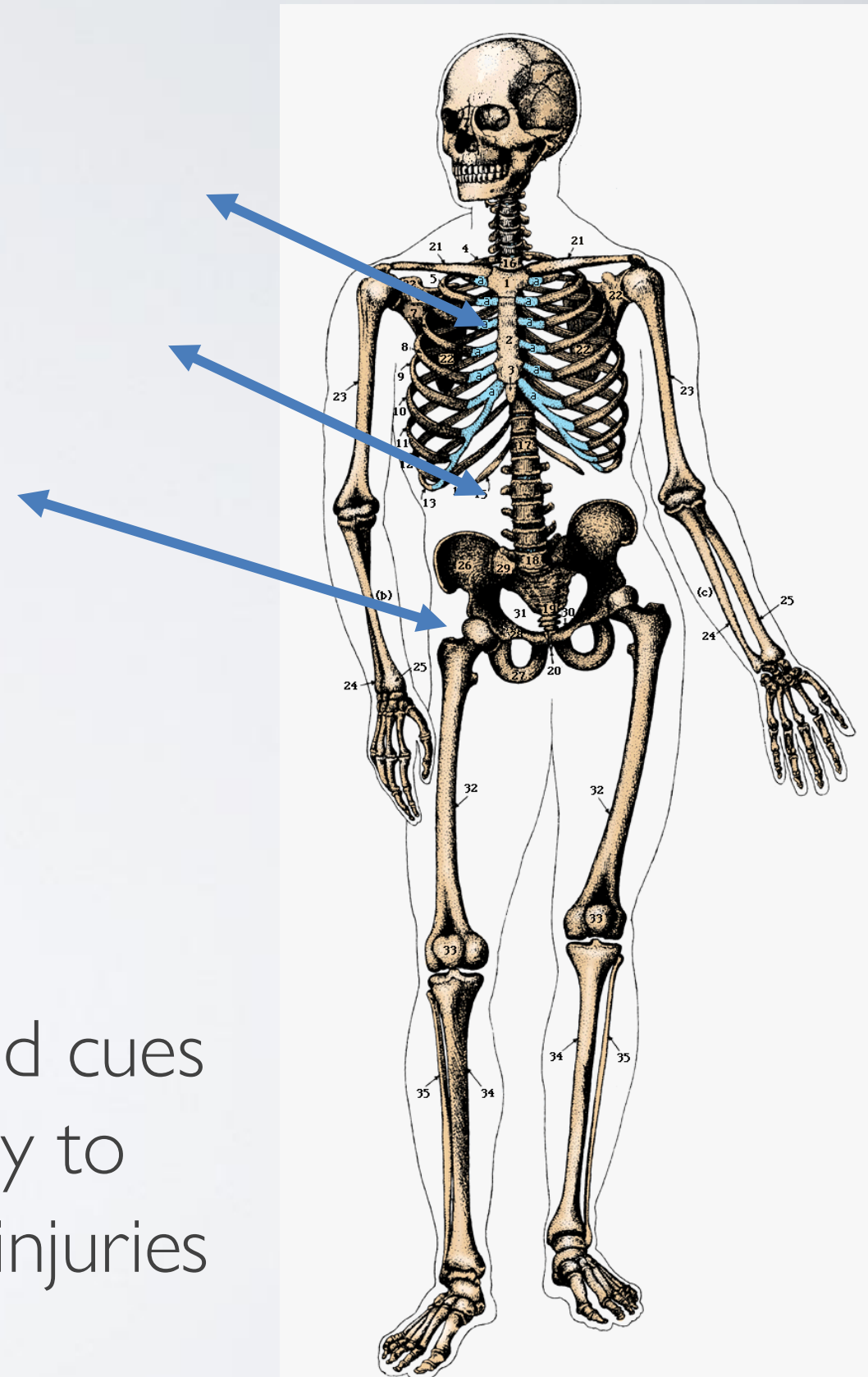
Symptom Free or Symptomatic??

The Key to the Core is the Ability to Brace  
and Control/Promote Optimal Mobility for  
Force Absorption, Transfer and Reduction  
With **STABILITY**



# So Then – What IS “Core” Training?

- Increase Thoracic Spine Mobility
- Increase Lumbar Spine Stability
- Increase Hip Mobility
- In Multiple Planes/Vectors
- Utilizing a Variety of Implements
- Emphasizing techniques, exercises and cues to train mobility and stability properly to increase performance and decrease injuries



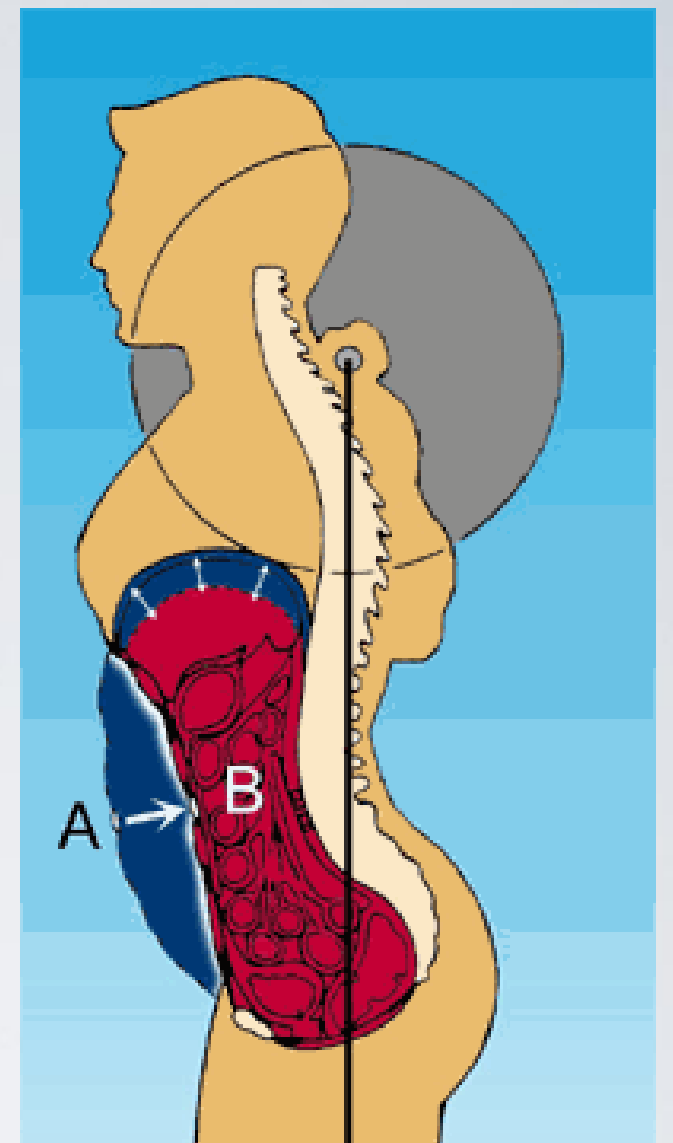


# Which is the “Best Core”





# Core Controls Collapse



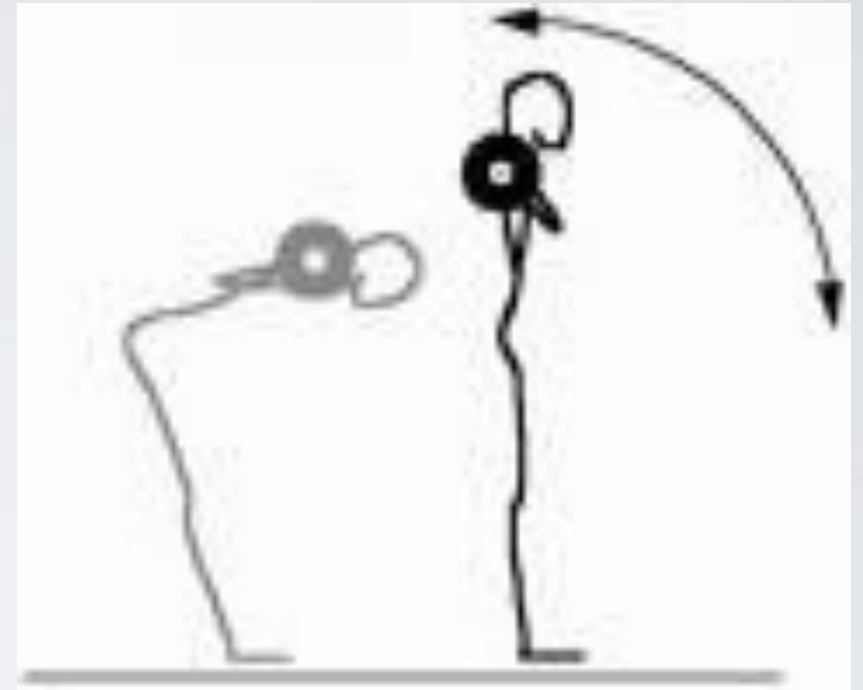


# Core Resists Rotation / Flexion



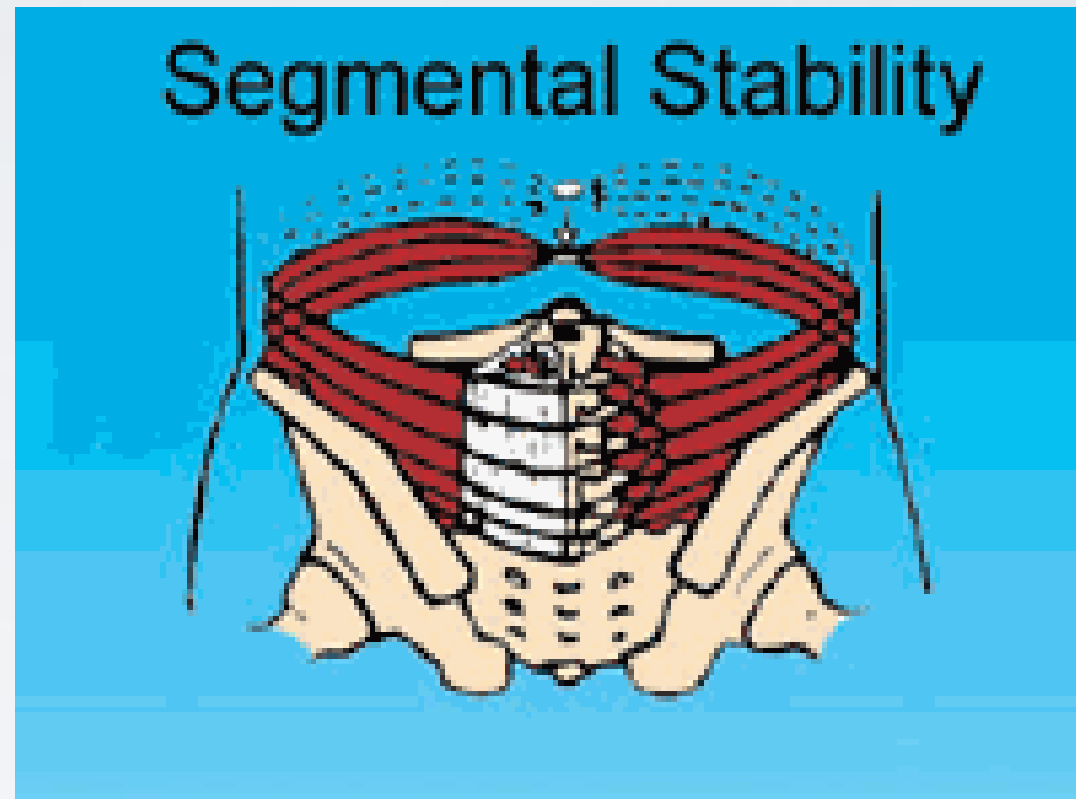


# Core Supports Loads



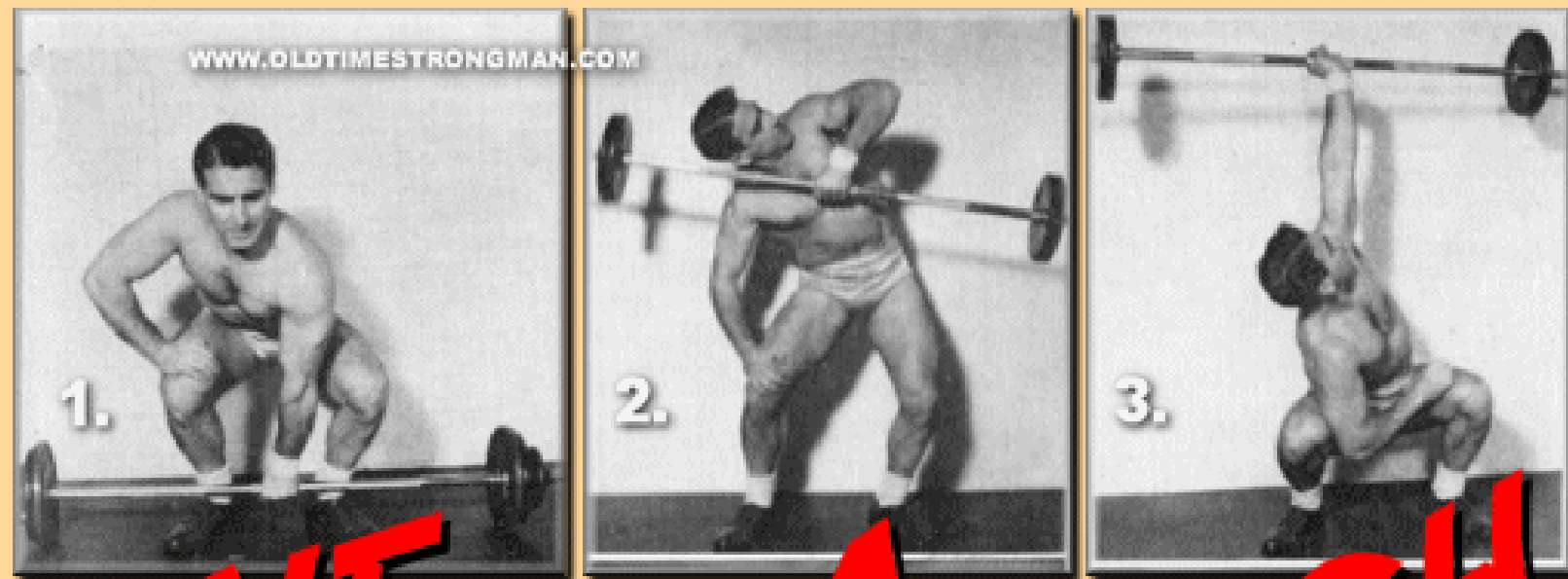
# Core is Segmented for Stability

- Anteriorly
- Posteriorly
- Laterally
- Rotationally
- Transverse Abdominus





# Unilateral Loading is Back and Core Rehab



**ONE ARM SNATCH**



# Performance Core/Final Stage Work Hardening Training is Executed “Standing”



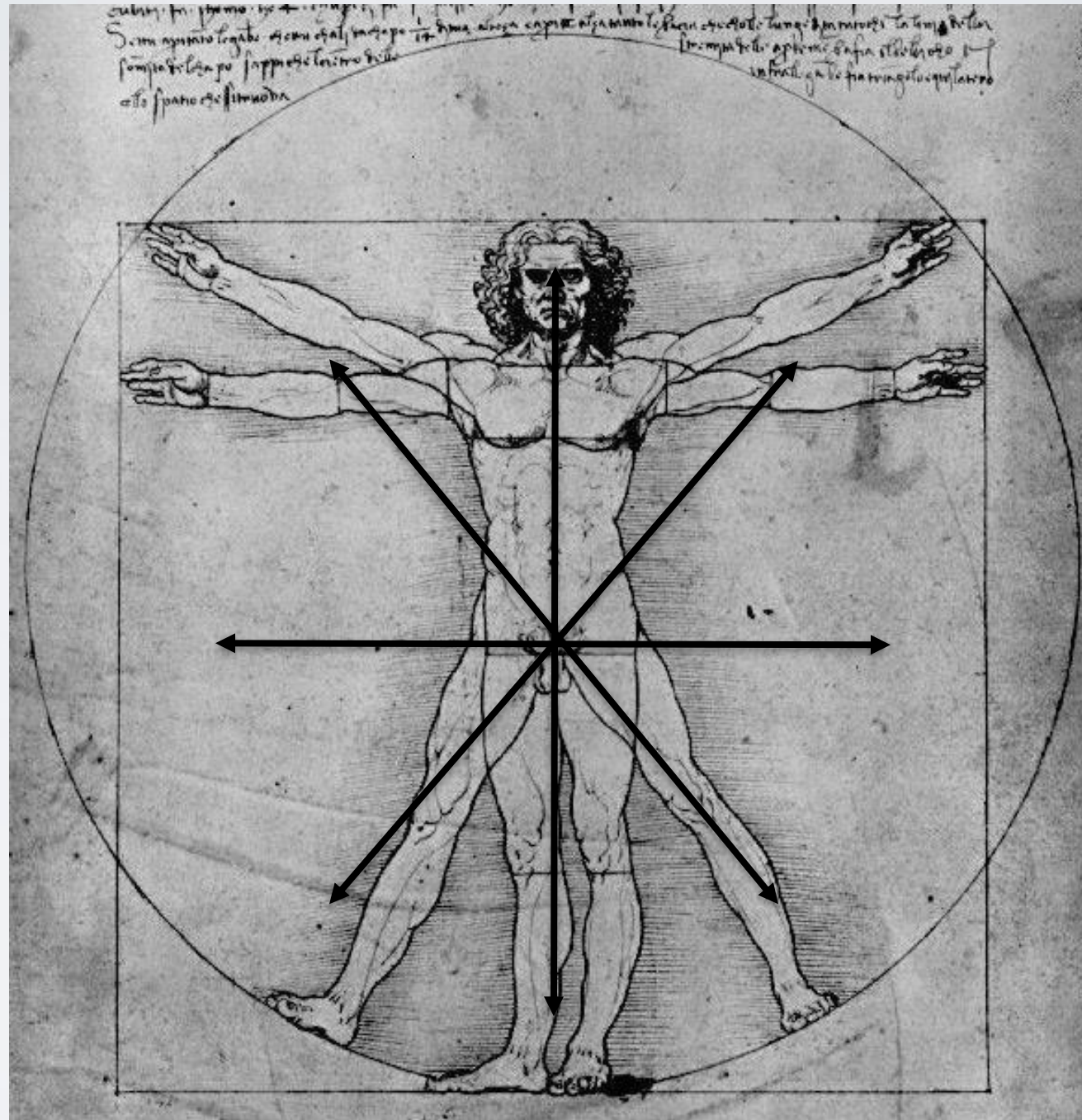


Injury Prevention core training should be done prone, supine or lateral and standing



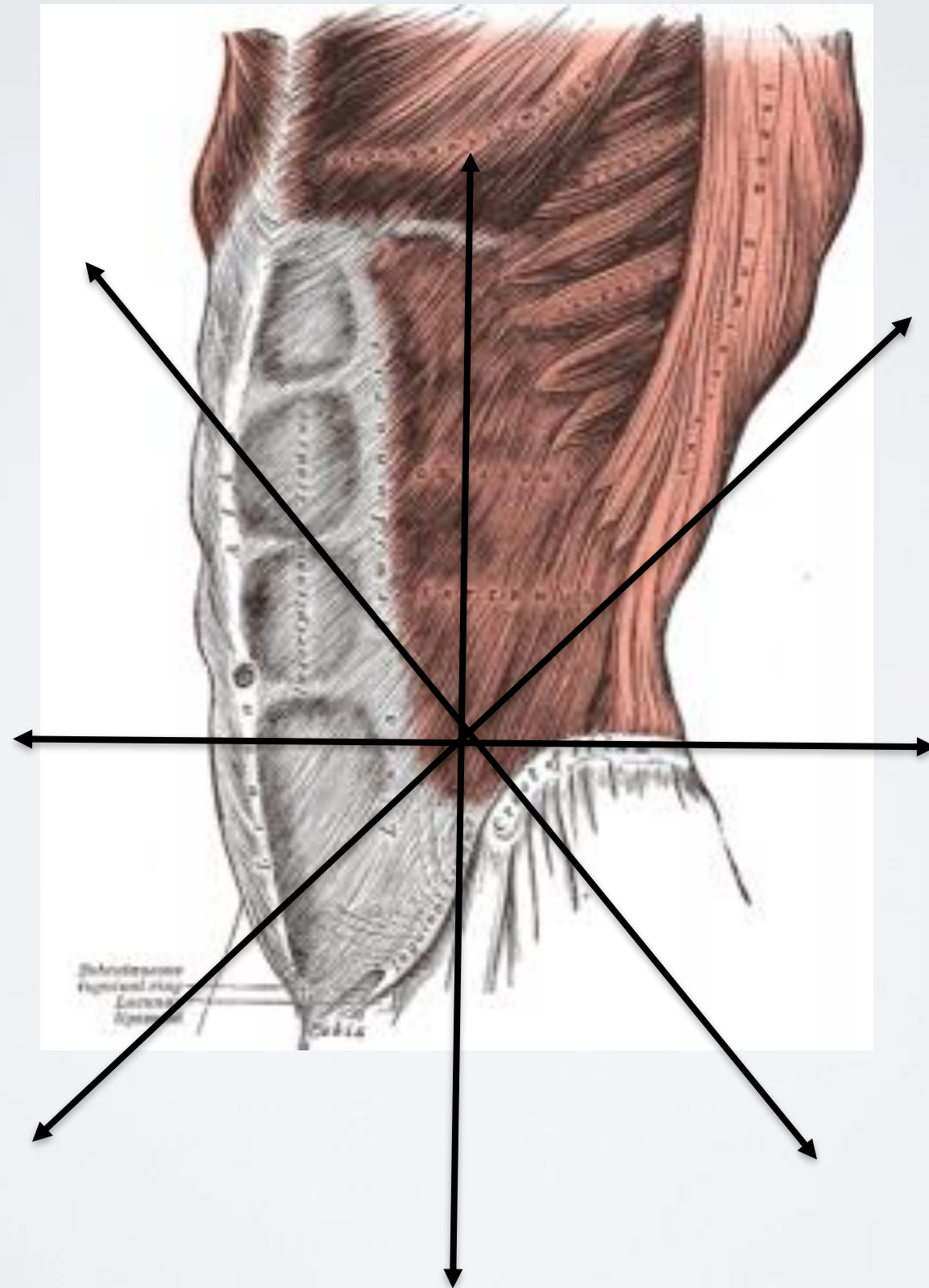


# The Core Must Be Trained in All Vectors



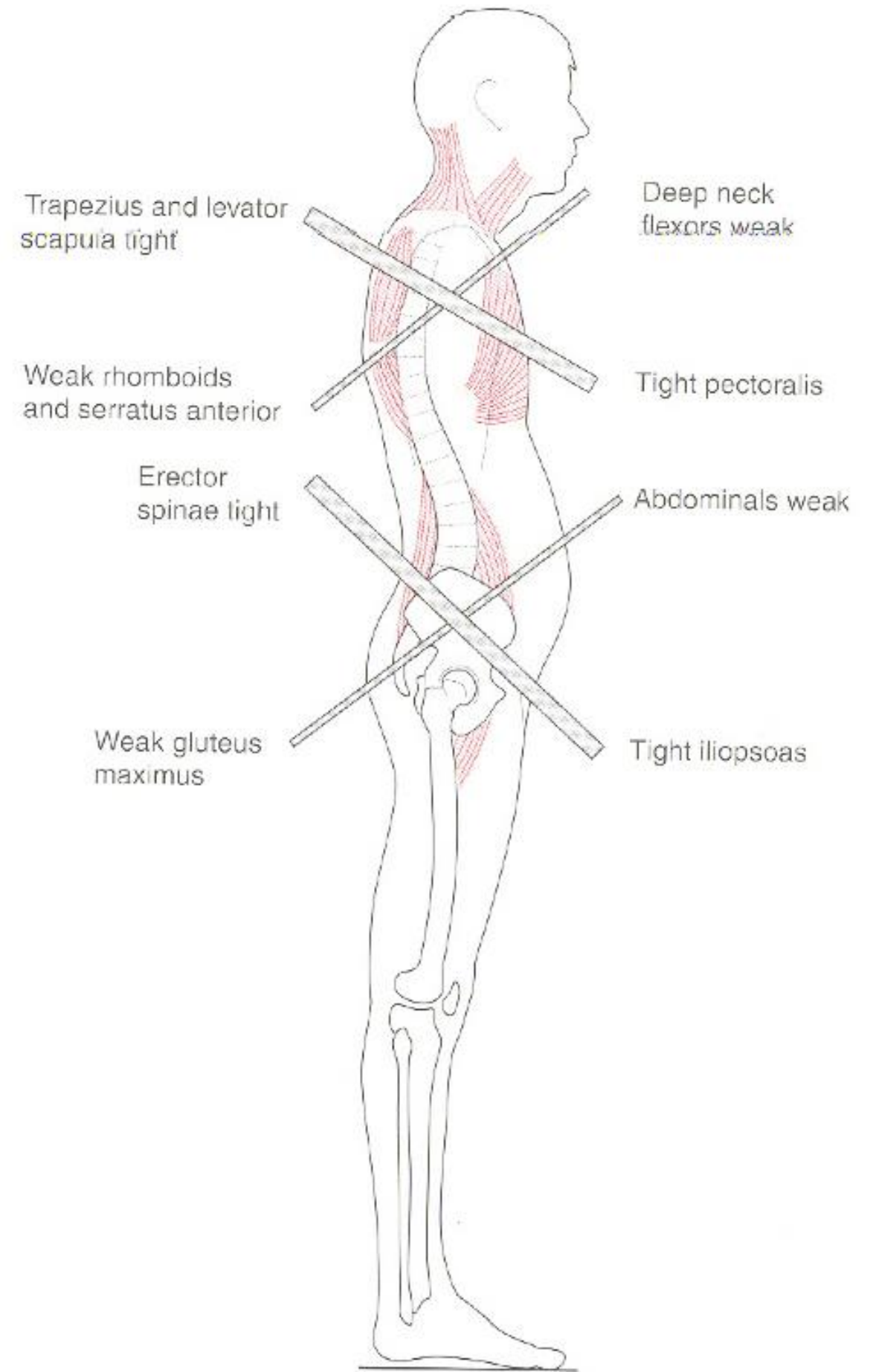


# From a Variety of Angles



# Upper and Lower Cross Syndrome

Extension (Front side Hip and Shoulder) is the Key in our Culture



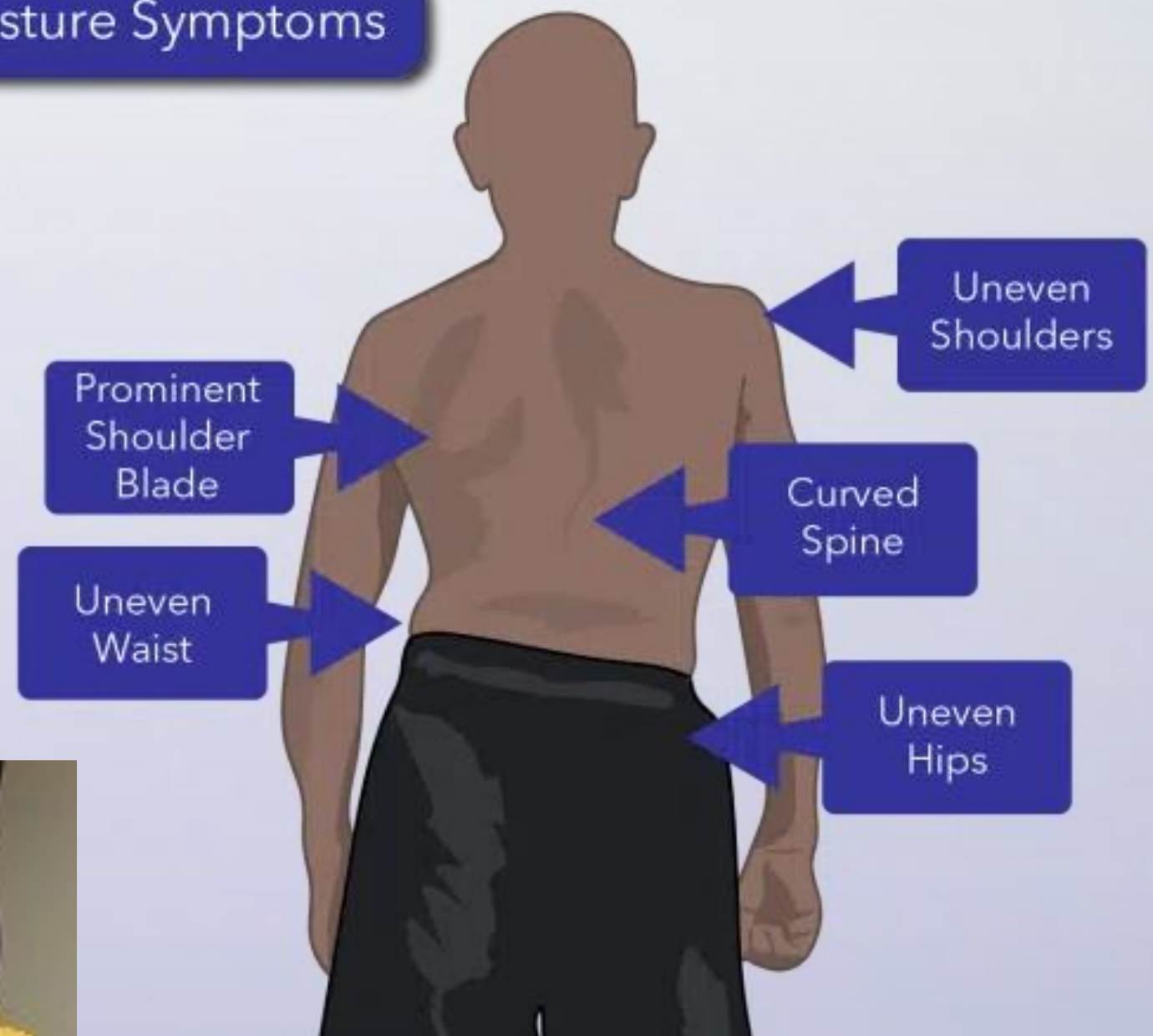
**Figure 2.1** The upper and lower crossed syndrome, as described by Janda (adapted from Chaitow (1996)).



# Rotation

- Scoliosis
- Pelvis

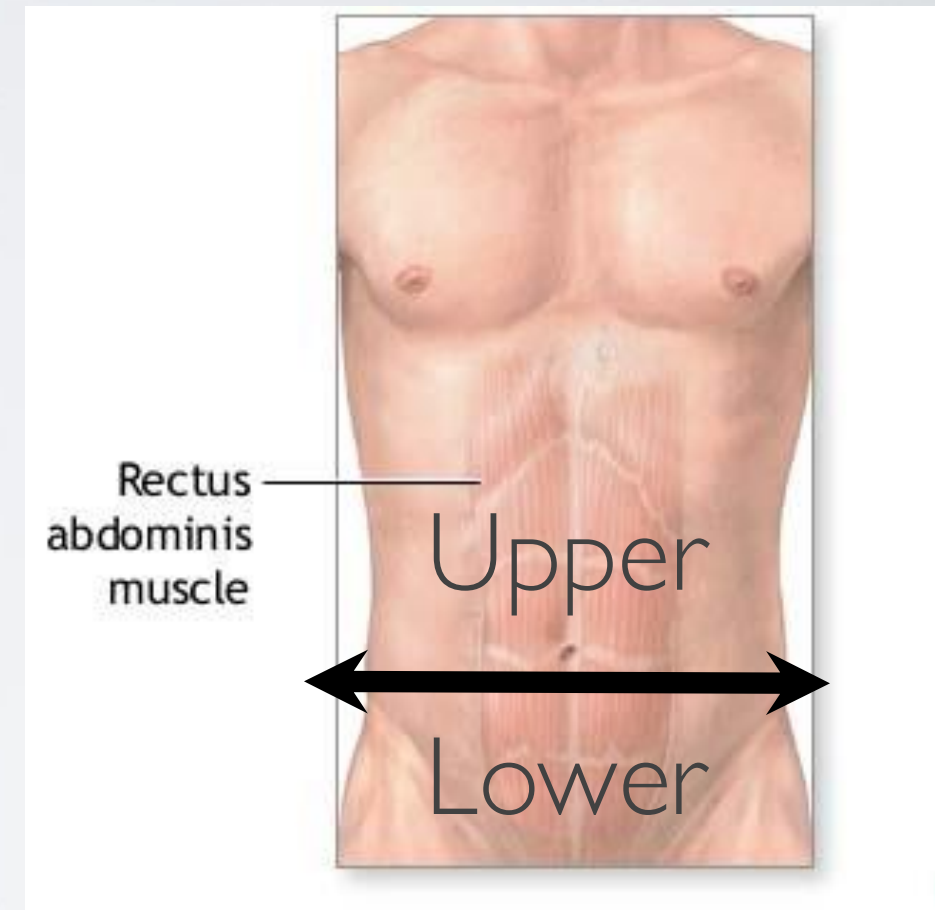
## Scoliosis Posture Symptoms





# Why is “Core” Training Important?

- The lower posterior “core” generates the power that is needed to walk, jump, trot, hop, skip, gallop, twist, etc. In other words, the lower “core”(glutes) drive movement.
- The upper “core” transmits the power generated in the lower “core” into the upper body and out to the hands, feet, implement(s) or opponent.
- Lower core is the site of many soft tissue injuries



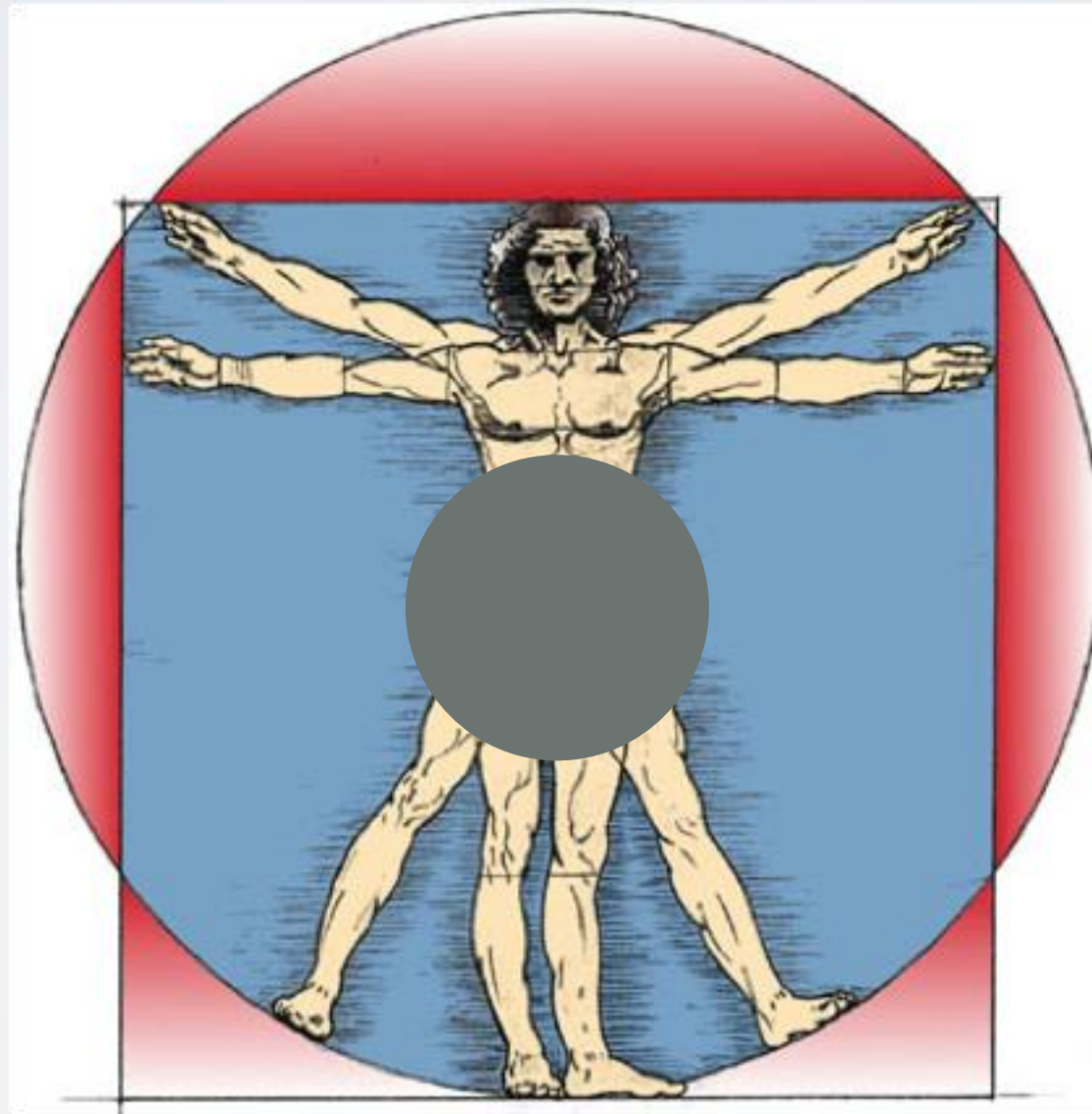


# Critical Factors

- Core - Defined
- Front Side Sling - “The Rubber Band”
- Back Side Sling - “The Power” - Glute Activation/Strengthening
- Core - “The Transmission”
- Rotary Stability Drills
- Rotary Strength Drills / Pillar Core
- Rotary Power Loss of Posture / Release Drills



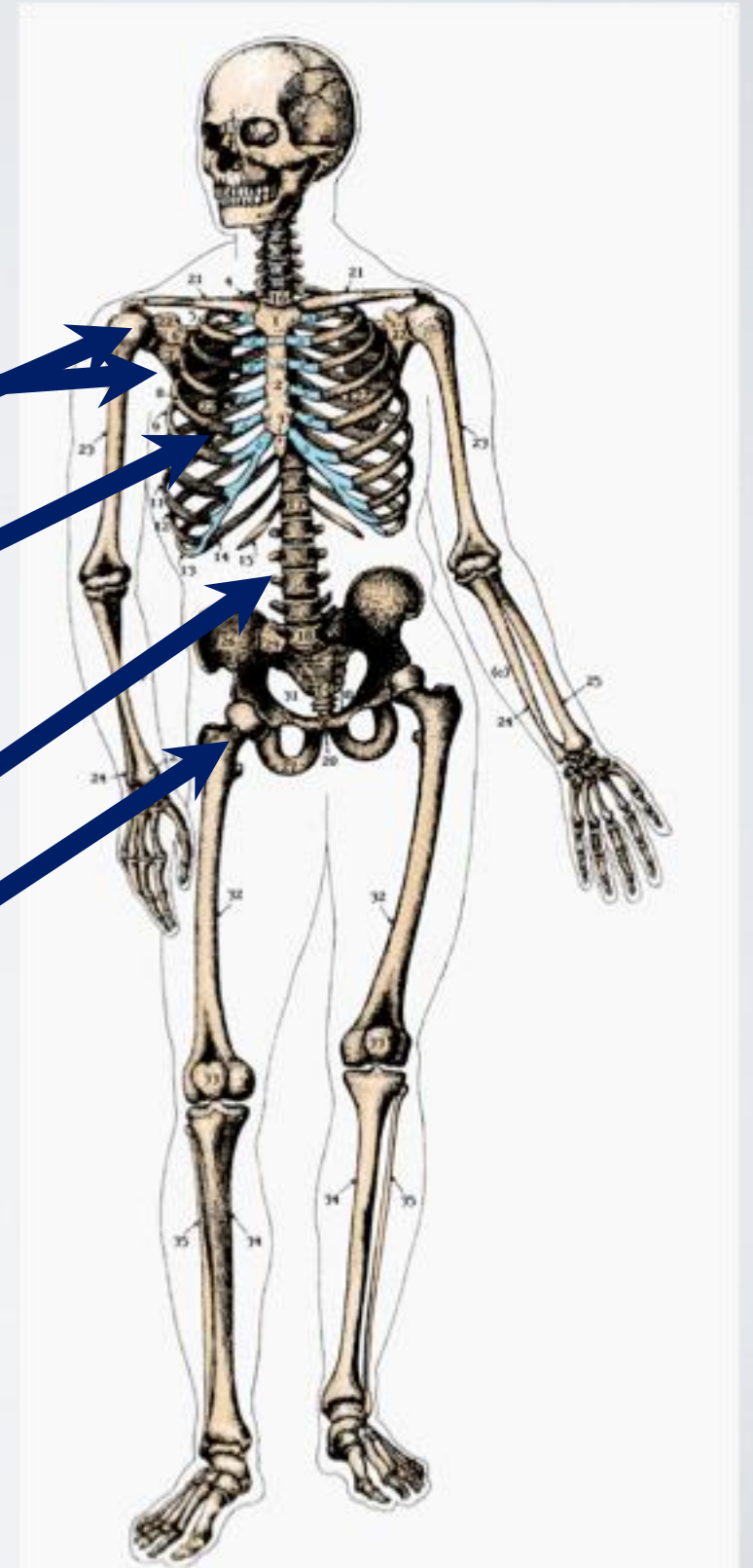
# The Core



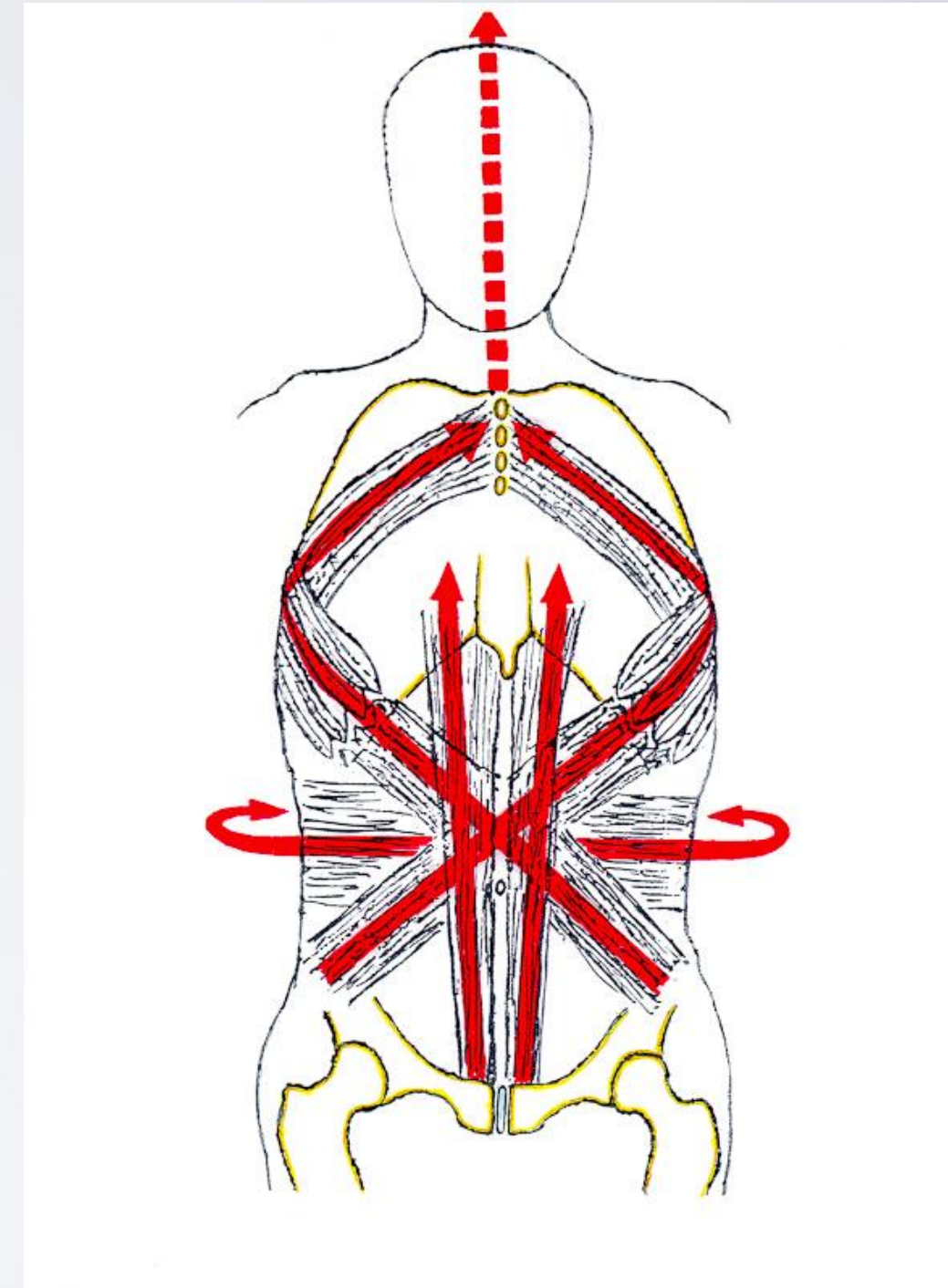
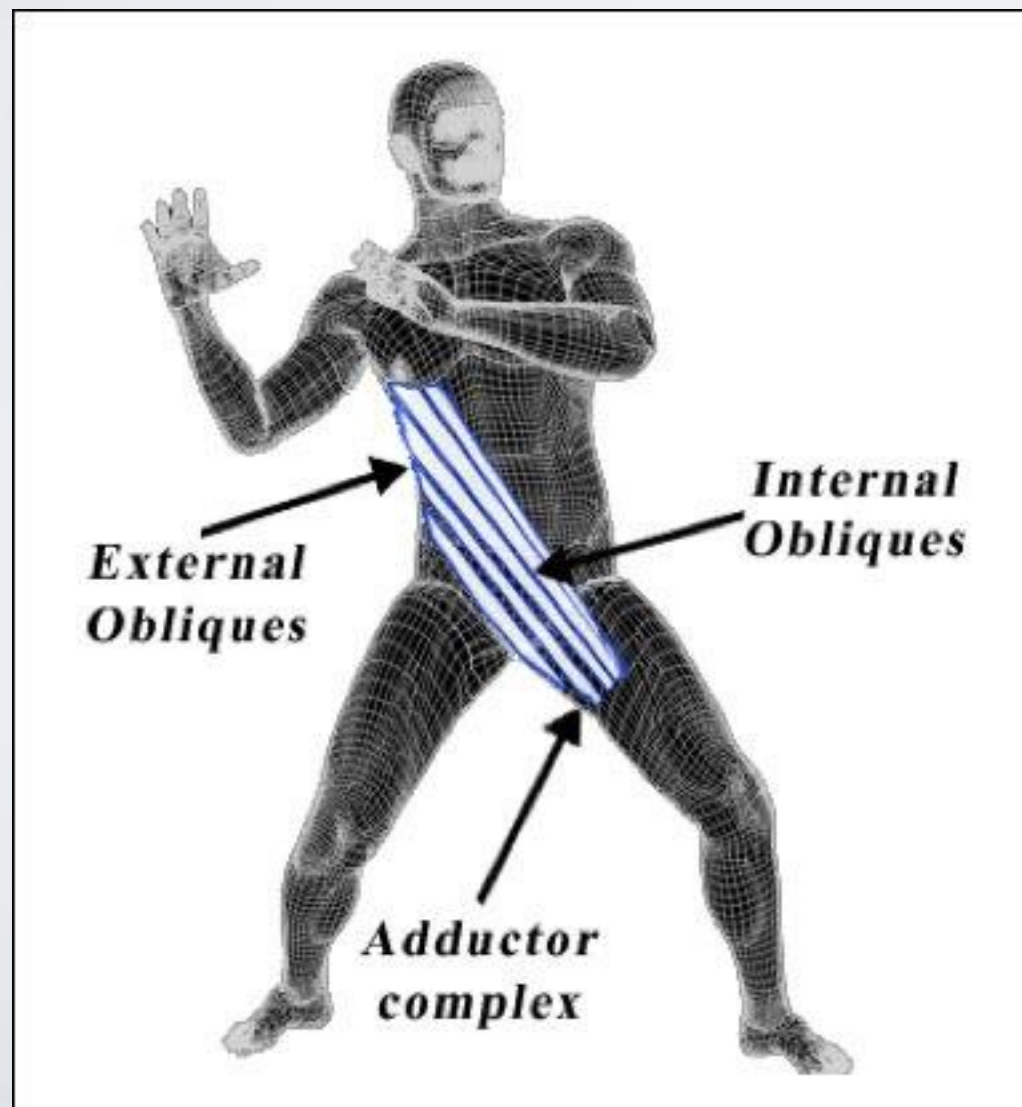
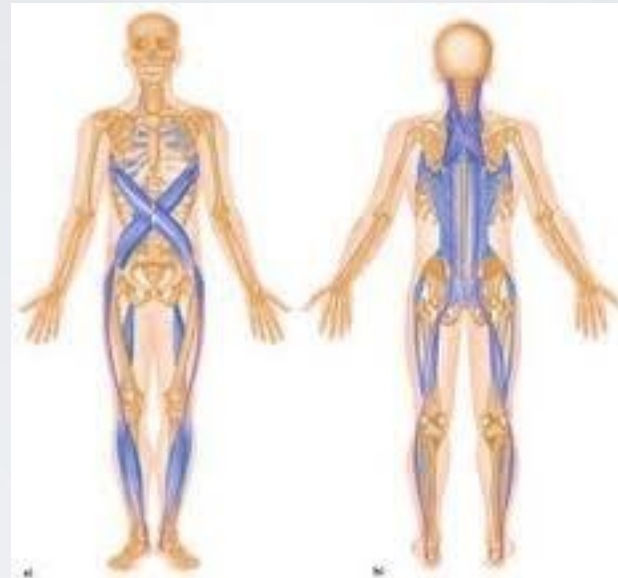
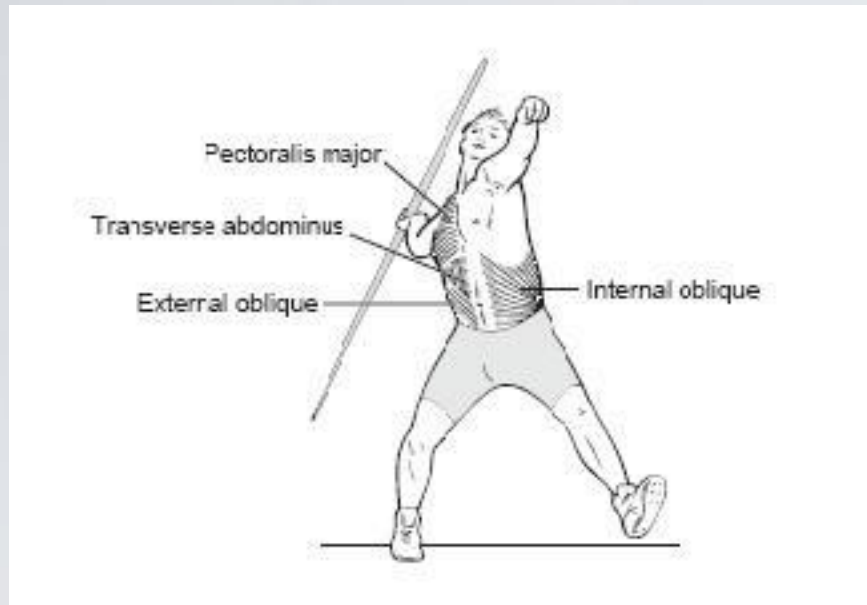


# Key to Rotary Performance

- Increase Scapular Stability
- Increase G-H Joint Mobility
- Increase T-Spine Mobility
- Increase Lumbar Spine Stability
- Increase Hip Joint Mobility



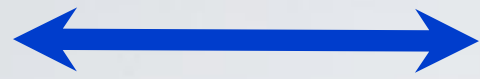
# Front Side Sling – “Handedness”







Long Side



Short Side



# IT Band



- Critical for lateral front side leg hip rotation

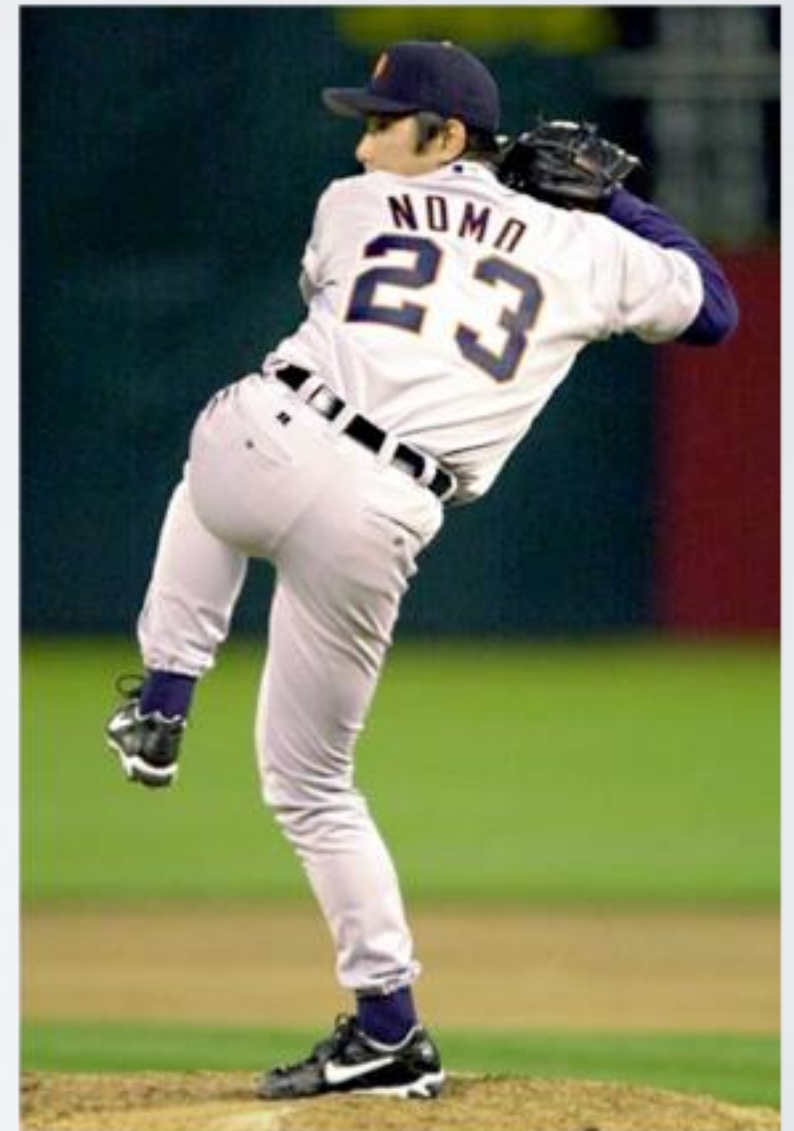


# Sartorius

**Critical For Internal Rotation**

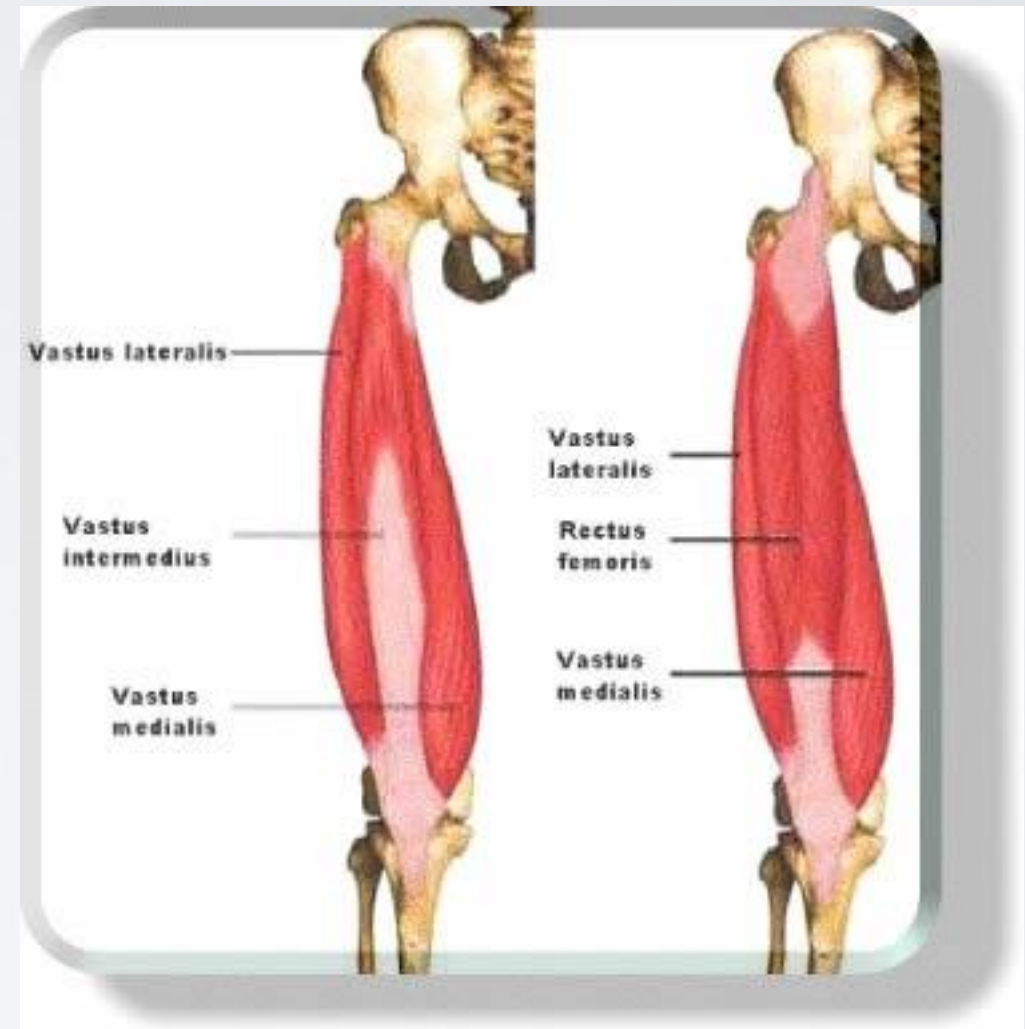
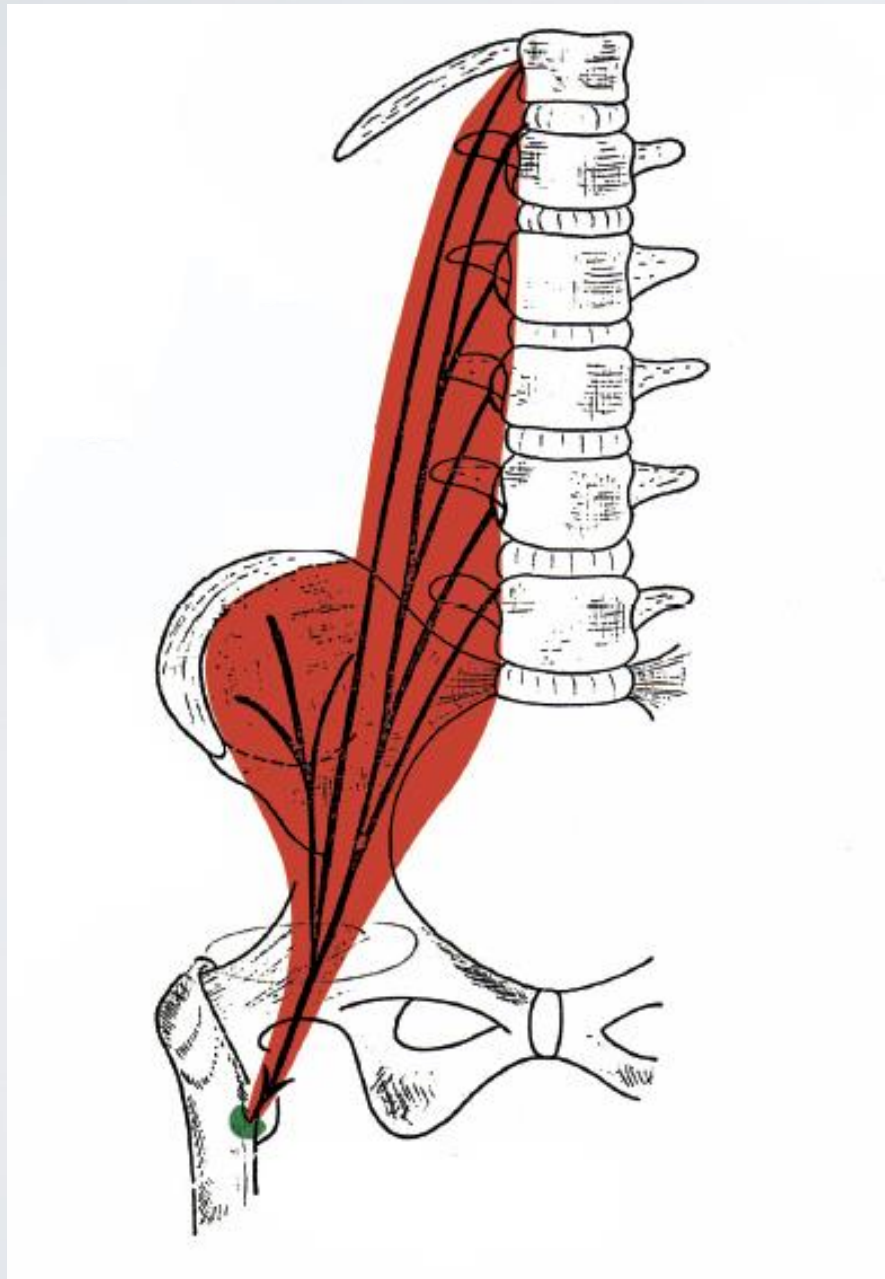


# Internal Rotation Important?!?



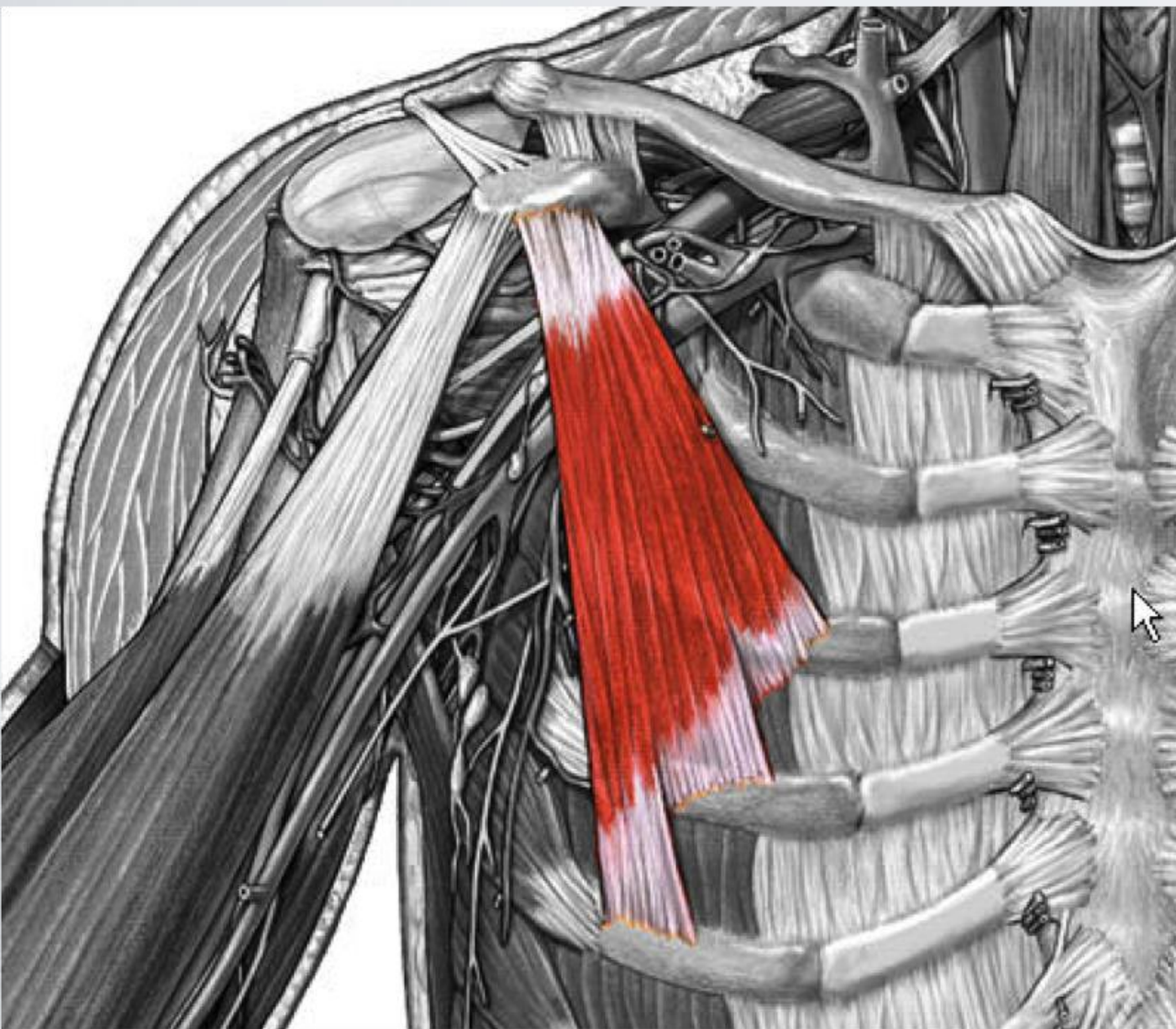


# Iliacus - Psoas - Quadriceps

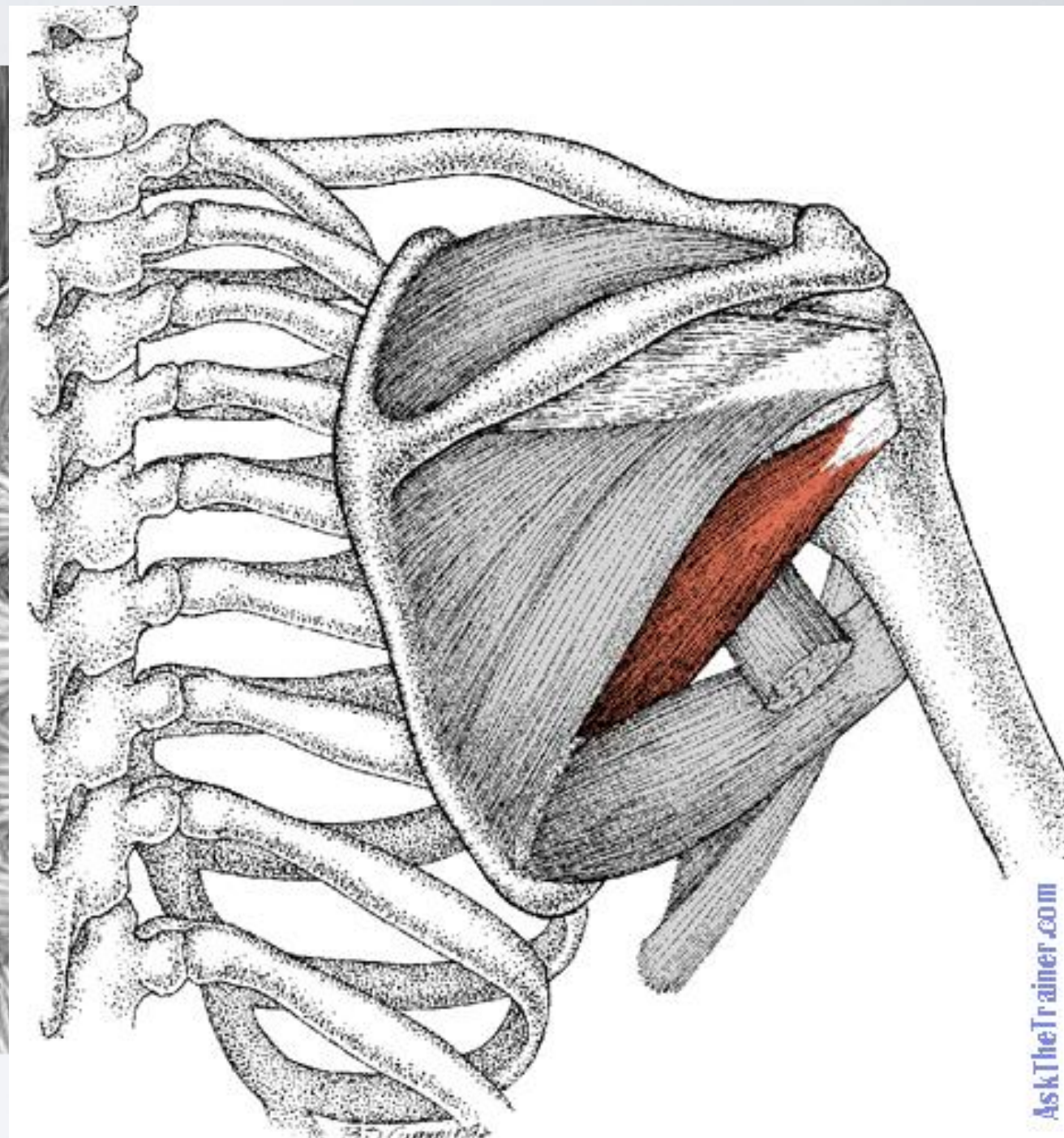




# Pec minor - Teres minor



pectoralis minor





# Core Training Patterns for Static Strength / Stability

- Planks
- Stability Ball
- TRX Suspension
- MediBalls
- WaterBalls
- Tubing / Cables – unilateral (Dead Bugs)
- Dumbbells / Kettlebells – unilateral (Rows, Reaches, RDL's )
- Manual Resistance / Bodyweight

# Core Vector Training Protocols For Stability With Movement Patterns

- X Pattern / Foam Roller Sequence
- 1 Leg RDL Rows
- Chops / Lifts
- Scoops / Slams
- Twists / Slides



# Unilateral Loading Protocols

- Vertical Push with Offset Loading
  - Single Leg
  - Incorporating Step — Ups / Step — Downs
- Horizontal Push with Parallel Stance (wide to narrow)
  - On a Bench / Stability Ball (with a squeeze)
- Vertical Pull (with a squeeze)
  - 1 Arm Pulls
- Horizontal Pull (with a squeeze)
  - Single Leg / 1 Arm Rows

# Areas of Focus for Injury Prevention

- Glute Recruitment (Bridges, Resisted Walks)
- Quadratus Suppleness (Stretch)
- Groin Suppleness & Strength (AD-duction, Slide Board)
- Hip Flexor Suppleness (Band Assists 1/2 Kneel Stretch and the Thomas PNF stretch – assisted)
- Glute Med Unilateral Strength
- Lower Core Strength/Stability (Squeezes)
- Lumbar Spine / Core Patterns of Loading
- Hip Internal/External Rotation (Mobility & Stretching)



# Pattern, Regression or Progression and Programming

- Pattern of Movement (Is it Clean? - Full ROM – Should it be Loaded?)
- Regression or Progression of Pattern
  - Not Clean Regress it to Assistance
  - Clean – progress it with Stability, ROM and Loading
- Programming
  - Protocol Implementation to Create the Training Effect
  - Controlling the Variables in Order to Enhance Training and Limit Over – Training

# Patterns of Movement

## Bi and Uni Lateral

- Bendover – Hinging at the Hip / With Rotation
- Extension of the Lumbar & T Spine / With Rotation
- Chop / Lift – Diagonal Plane Movements
- Twist / Slide – Side to Side Movements
- Slam / Scoop – Down and Up Skills
- Curl Flexion – of the Trunk
- Pillar Core Stability With Single or Dual Limb Mobility in Multiple Planes / Vectors



# Quantify Core Training

- Sets
- Reps
- Time Under Tension
- Recovery

# Quality of Core Training

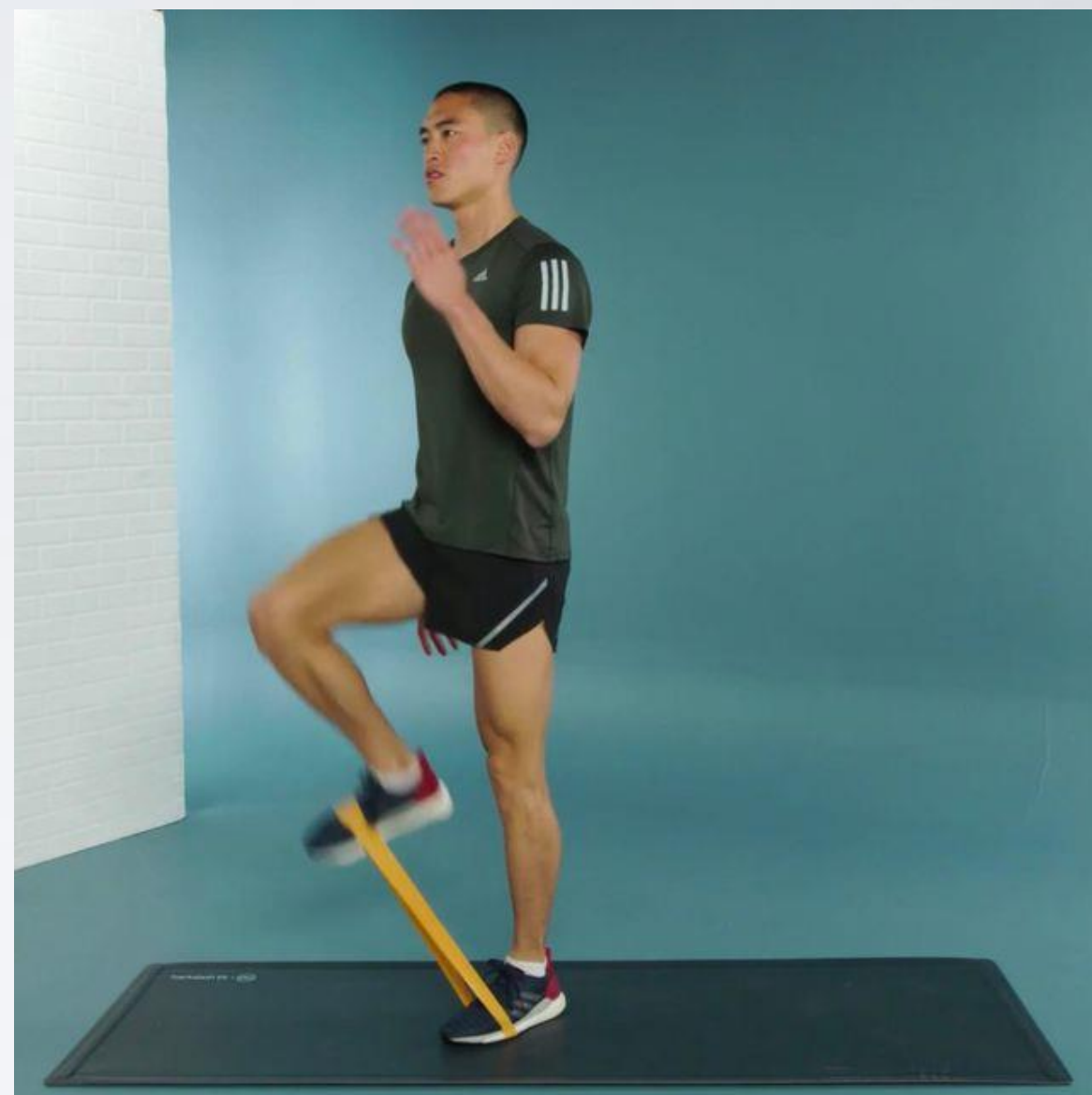
- Stability
- ROM
- Lever Length
- Overall Pattern
- Base of Support
- Speed
- Load
- Volume



# Glute Activation



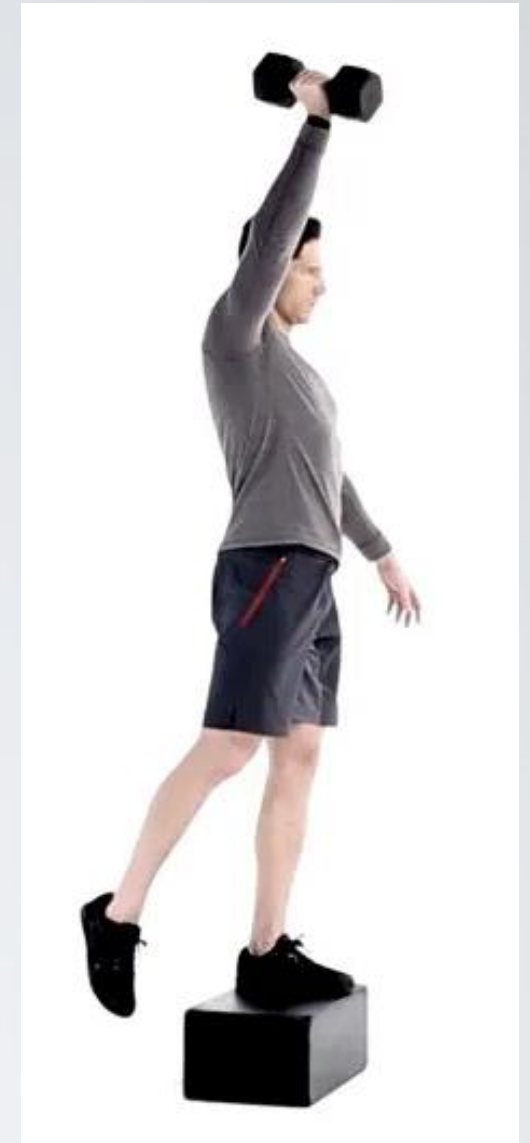
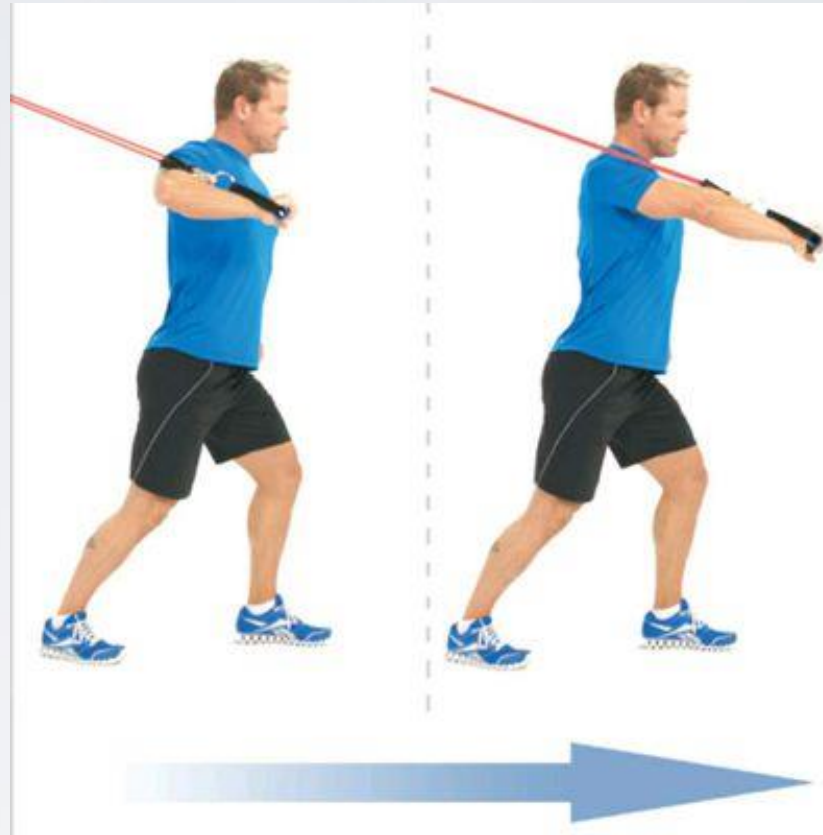
# Glute Activation and Psoas Strengthening





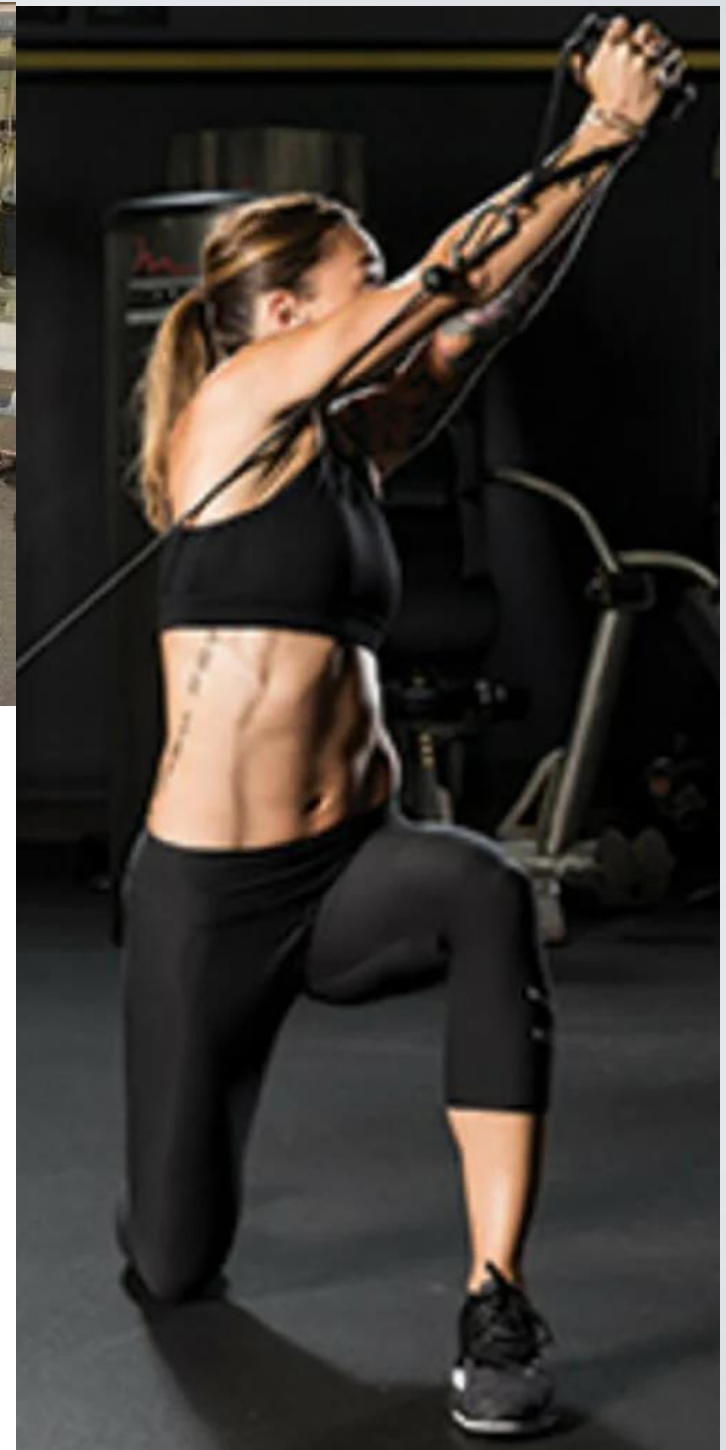
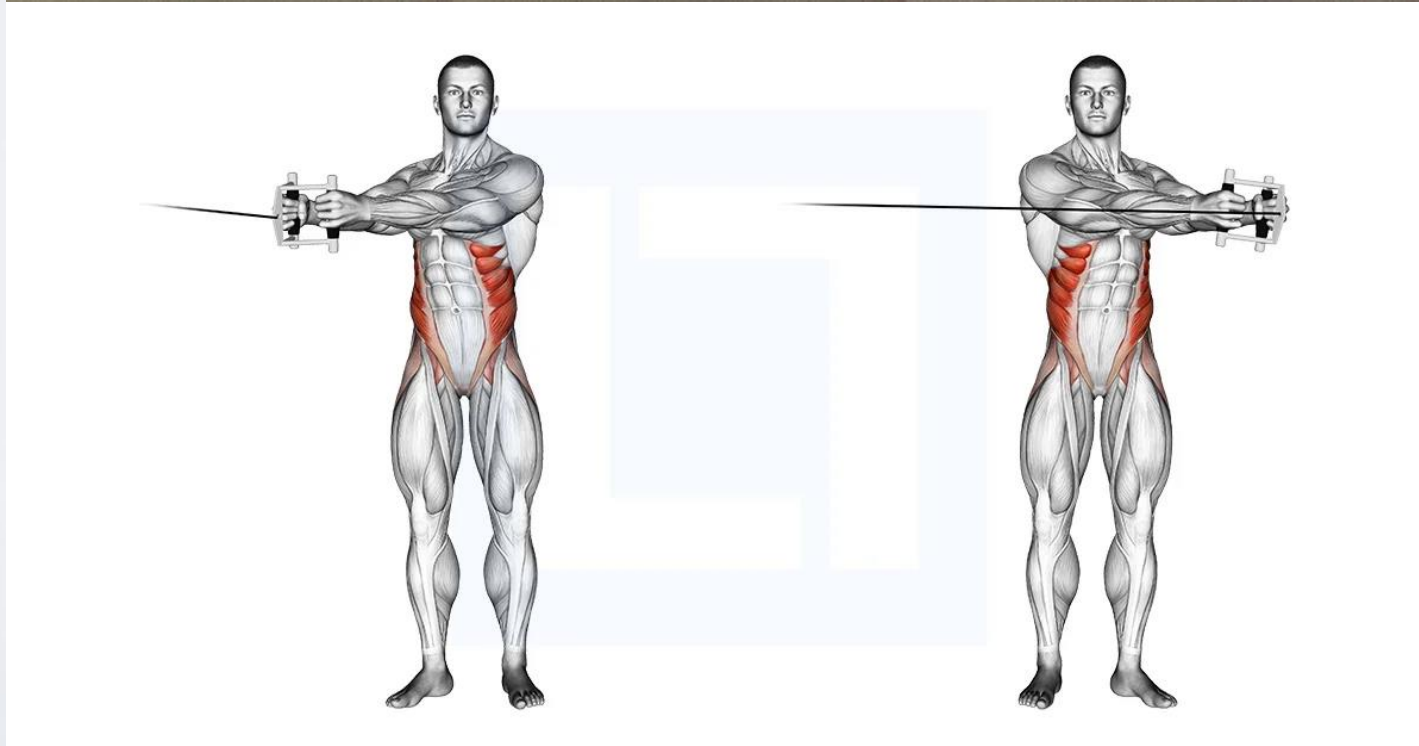
# Pillar Core

- Posture
- Anti – Rotation
- Anti – Collapse
- Anti – Flexion
- Anti – Extension
- Scapula Retracted and Pack



# Anti-Rotation Core

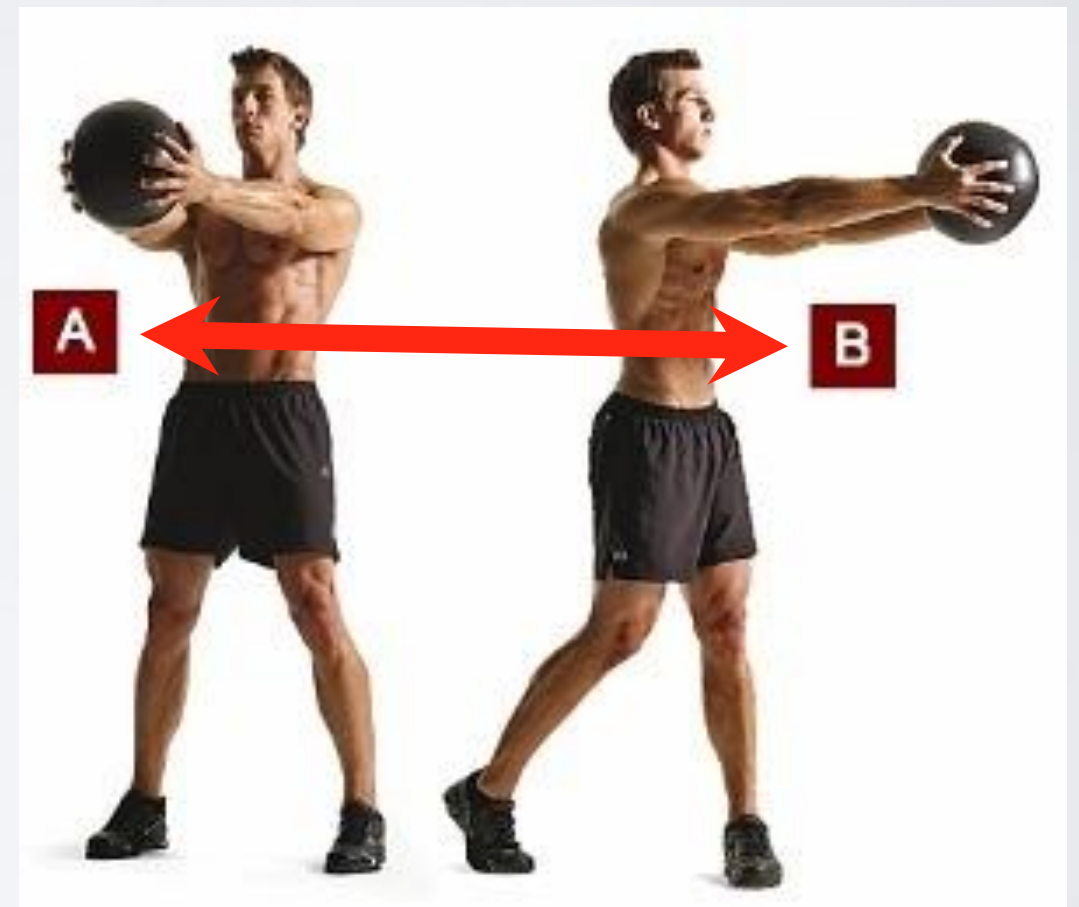
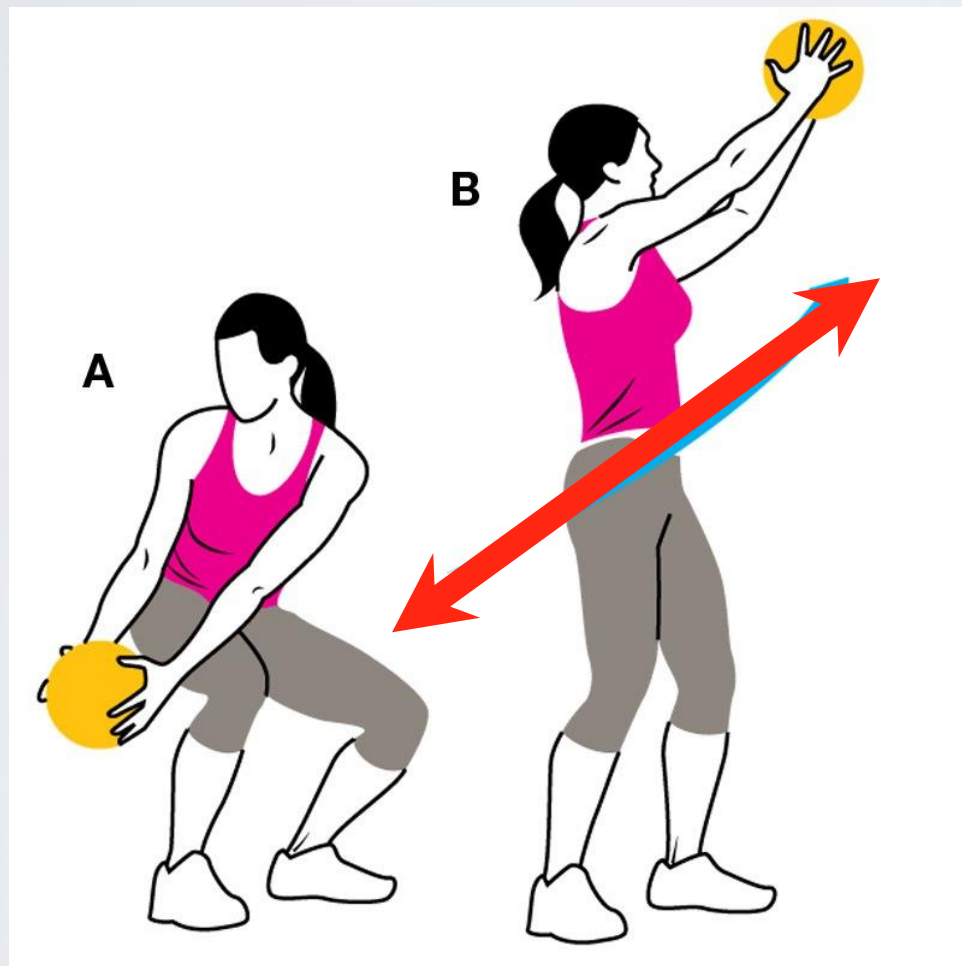
- Chop
- Lift
- Slide





# Core Transmission

## chop - lift - twist



Stance

Parallel

Diagonal

Linear

Single Leg



# Chop - Lift - Twist Variables

- Stance - Half Kneel / Parallel / Diagonal / Linear
- Implement - Cable / Tubing / Ball / Weight / Water Ball
- Stability - Tall / Braced Core
- Performance - Release Skills / Rotation / Flexion

# Rotary Power Stability

- Half Kneel OR Standing (Diagonal/Parallel) Chop / Lift / Twist
- MB - Plate
- Tubing
- Water Ball
- Partner Push (Wall Sit - Band Walk Series)



# Band Walks





# Band Walks





# Band Shuffles





# Assisted Chop / Lift



# Rotary Strength

- Wall Sit - Resisting Rotation
- Band Walk Resistance - Resisting Rotation
- Tubing / Band - Transfer of Power
- Cable - Strength or Performance



# Rotary Power

- Medicine 5 Way Throws (Overhead, Over Shoulder, Shovel)
- Chop / Lift / Twist Tosses
- Tubing OR Band Chop / Lift / Twist
- MB Punches
- Speed Pulls (1 Arm)



# Twist Toss

Plyometric - Power - Plyometric





# Creating the Protocol

- Fundamentals First – Pillar Core
  - Pillar Core
  - Kneel or Half Kneel
- Changing Stress
  - Base – ROM – Implement
- Performance
  - Plyometric – Loss of Posture/Follow Thru/Release Skills

**thank *you!***

**Contact:** [CoachRobbRogers@gmail.com](mailto:CoachRobbRogers@gmail.com)