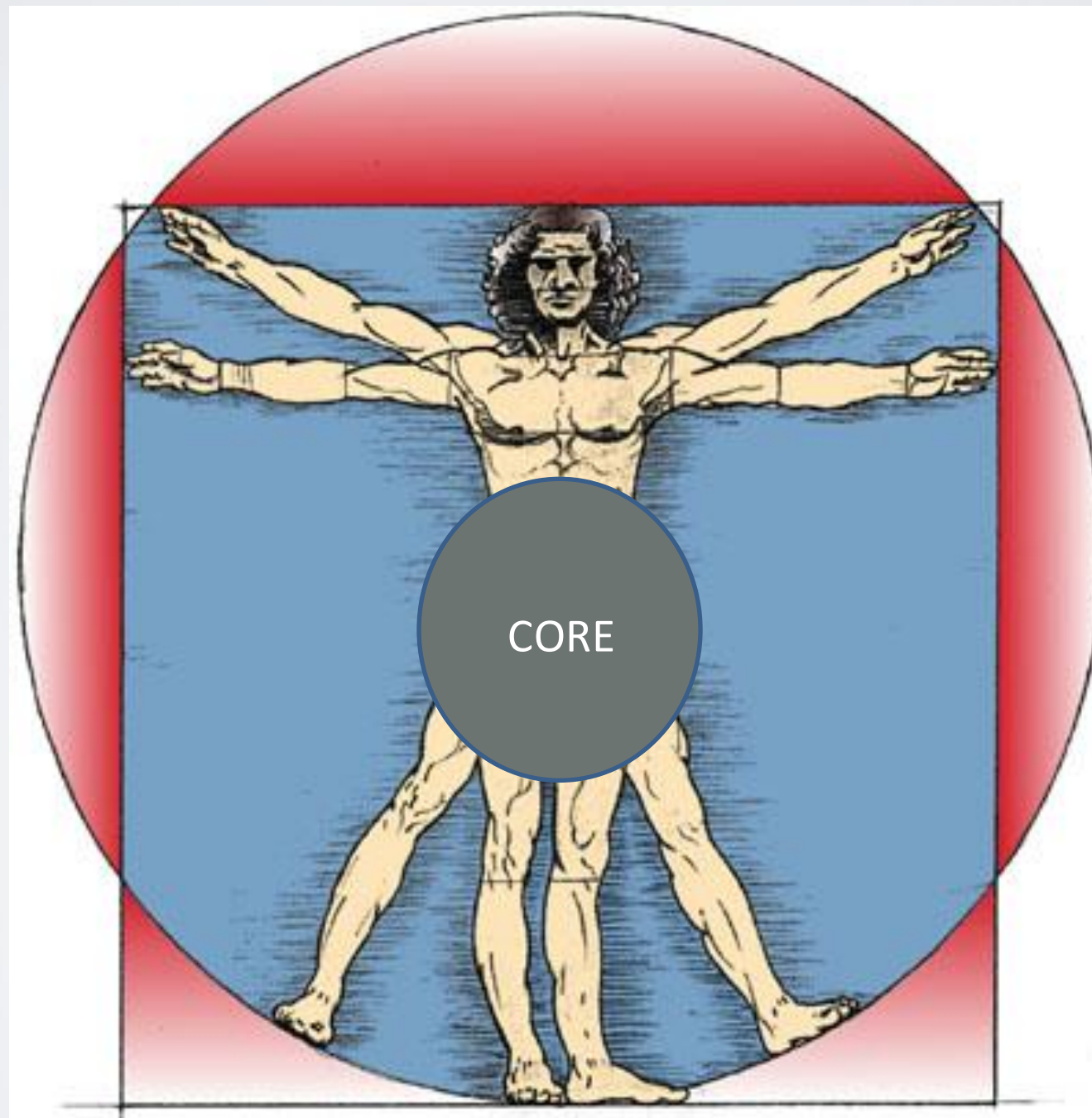


The Low Back: It is truly a pain!

Robb Rogers

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



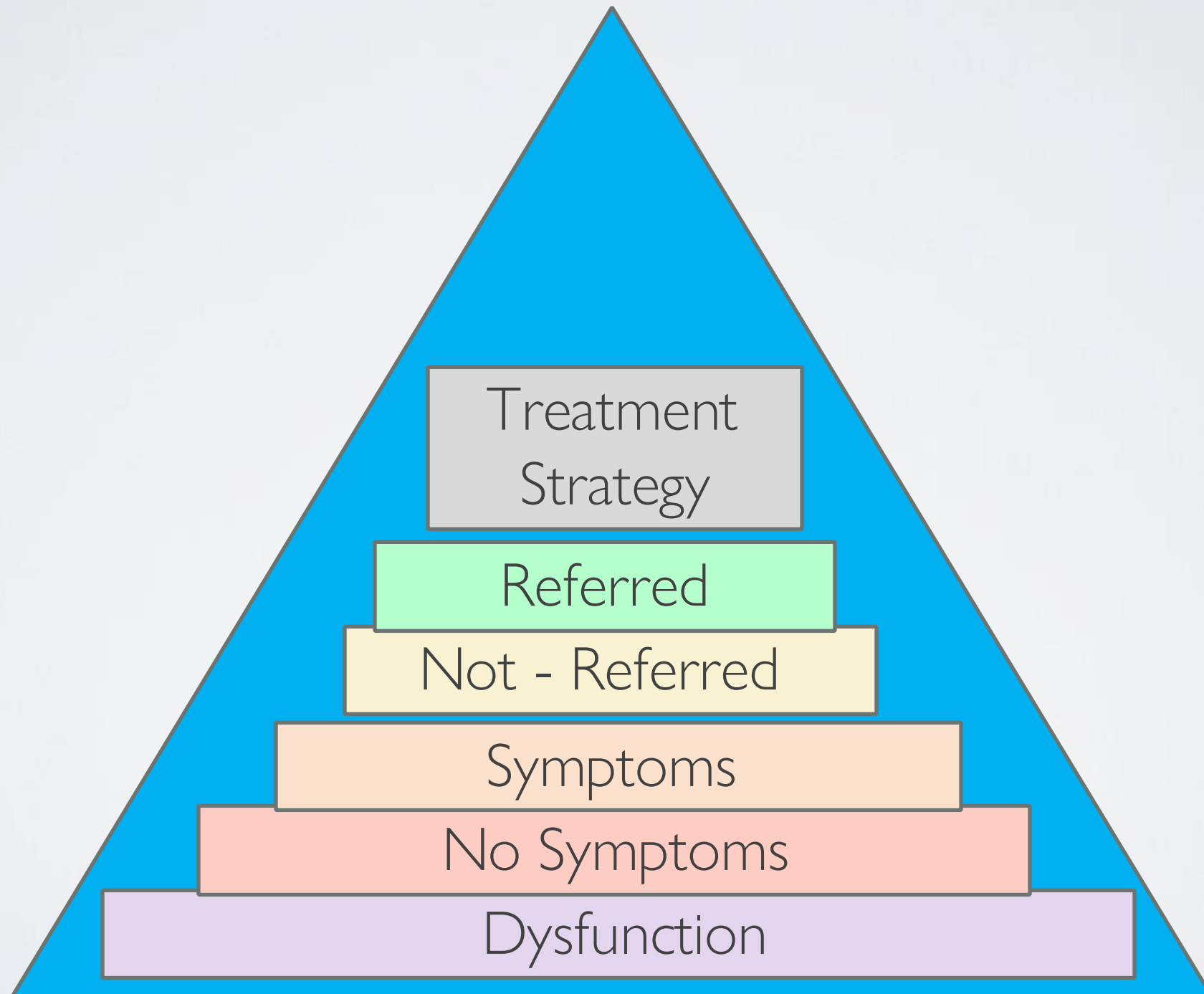
Back Pain Stats

- 80% of adults will suffer back pain
- 50 BILLION in costs to Americans seeking treatment
- Leading cause of disability worldwide
- Second leading cause of missed work (URT #1)

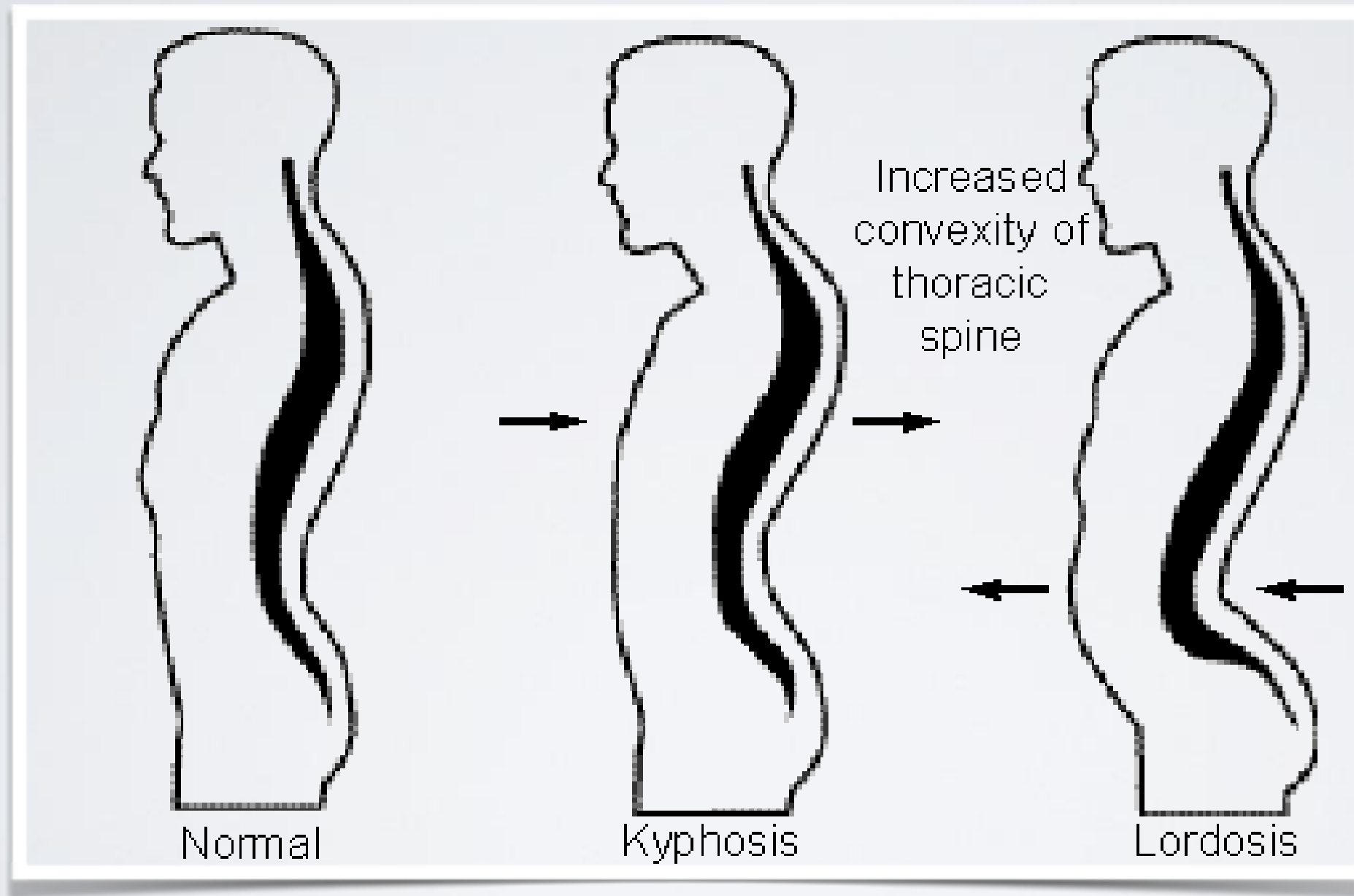
Why is the back such a pain in
the back!?!



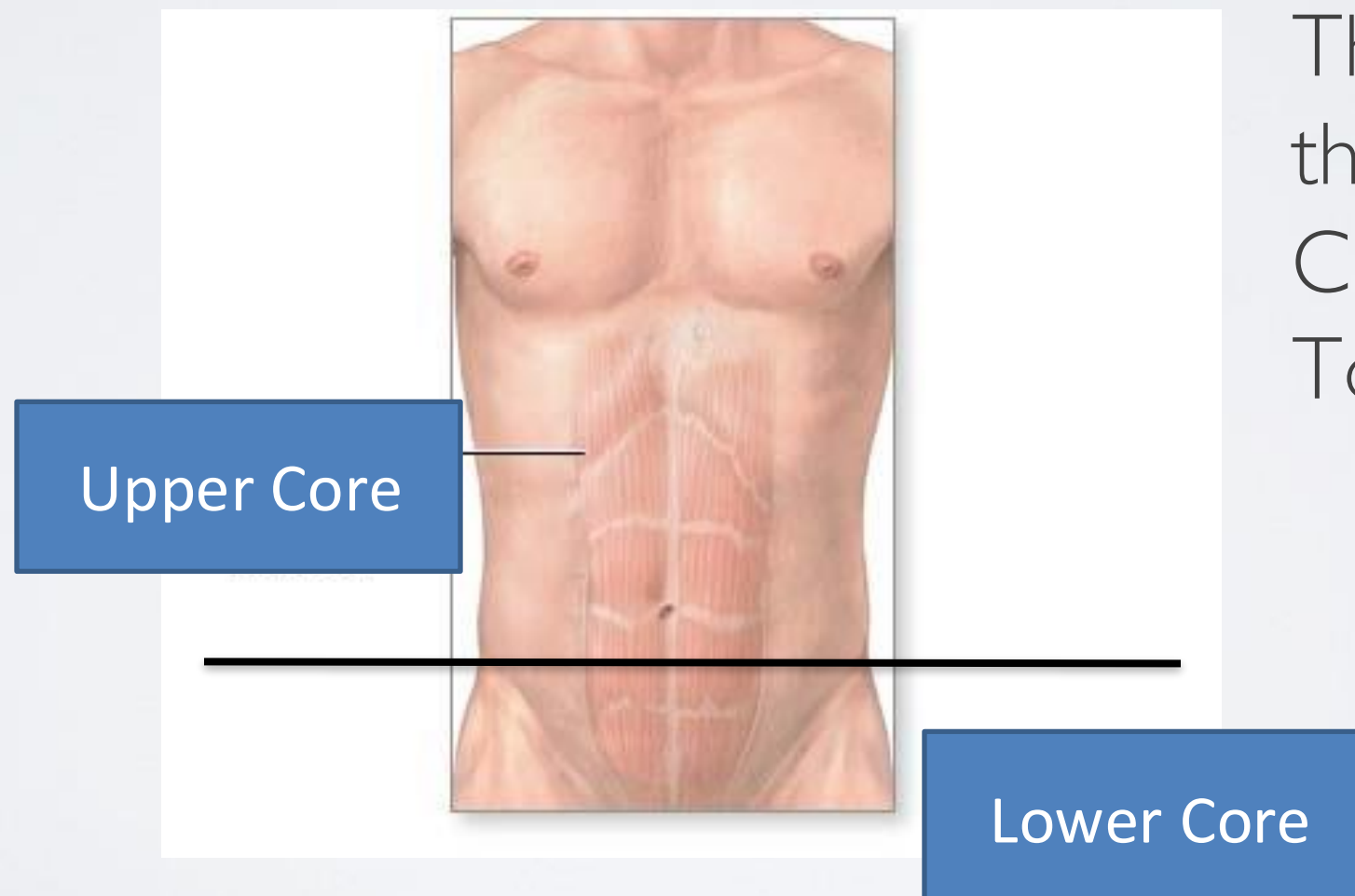
Dysfunction – Symptoms – Intervention Strategy



Lack of core strength and stability and hip/T spine mobility



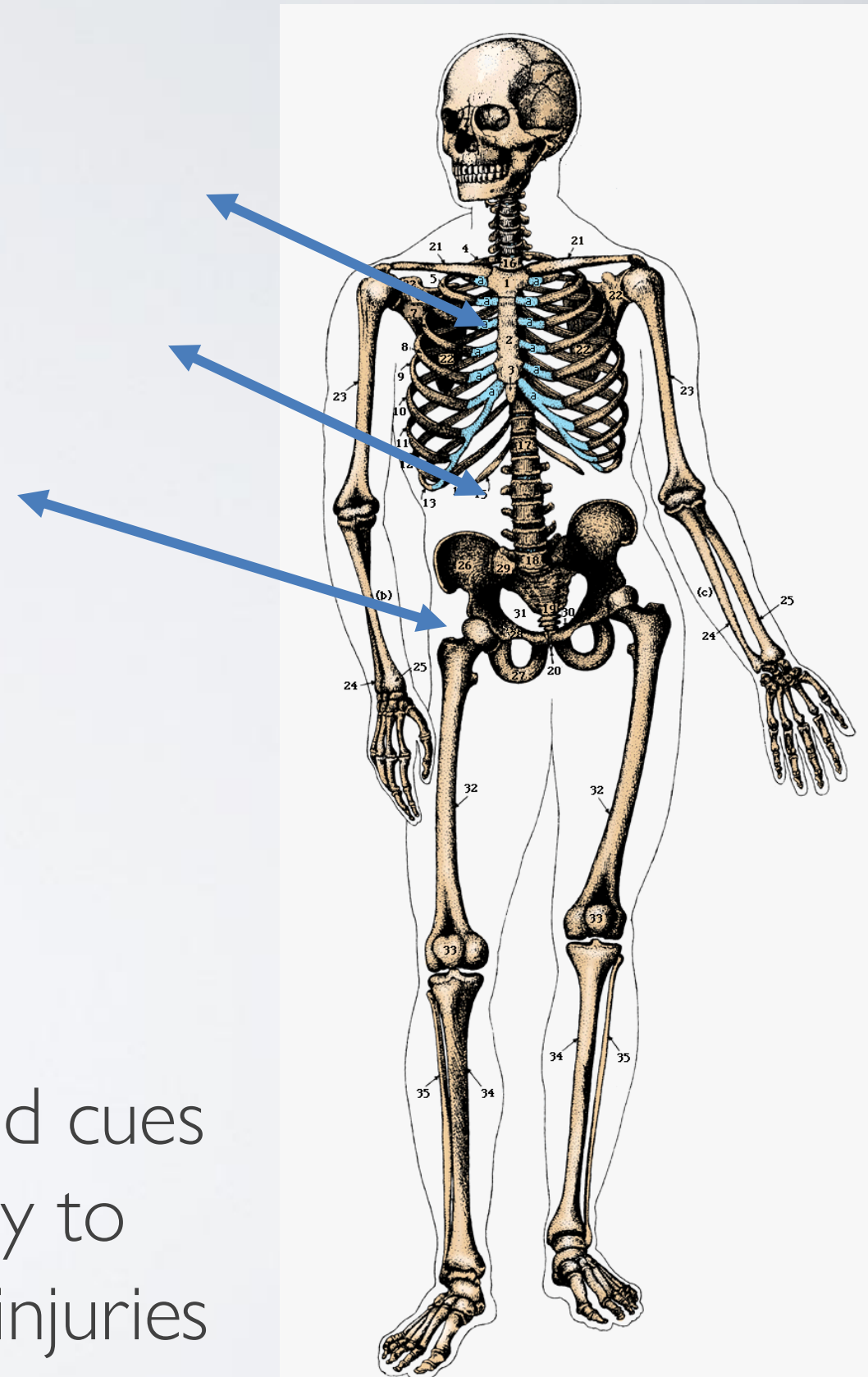
The Key to the Core is the Ability to Brace and Control/Promote Optimal Mobility for Force Absorption, Transfer and Reduction With **STABILITY**



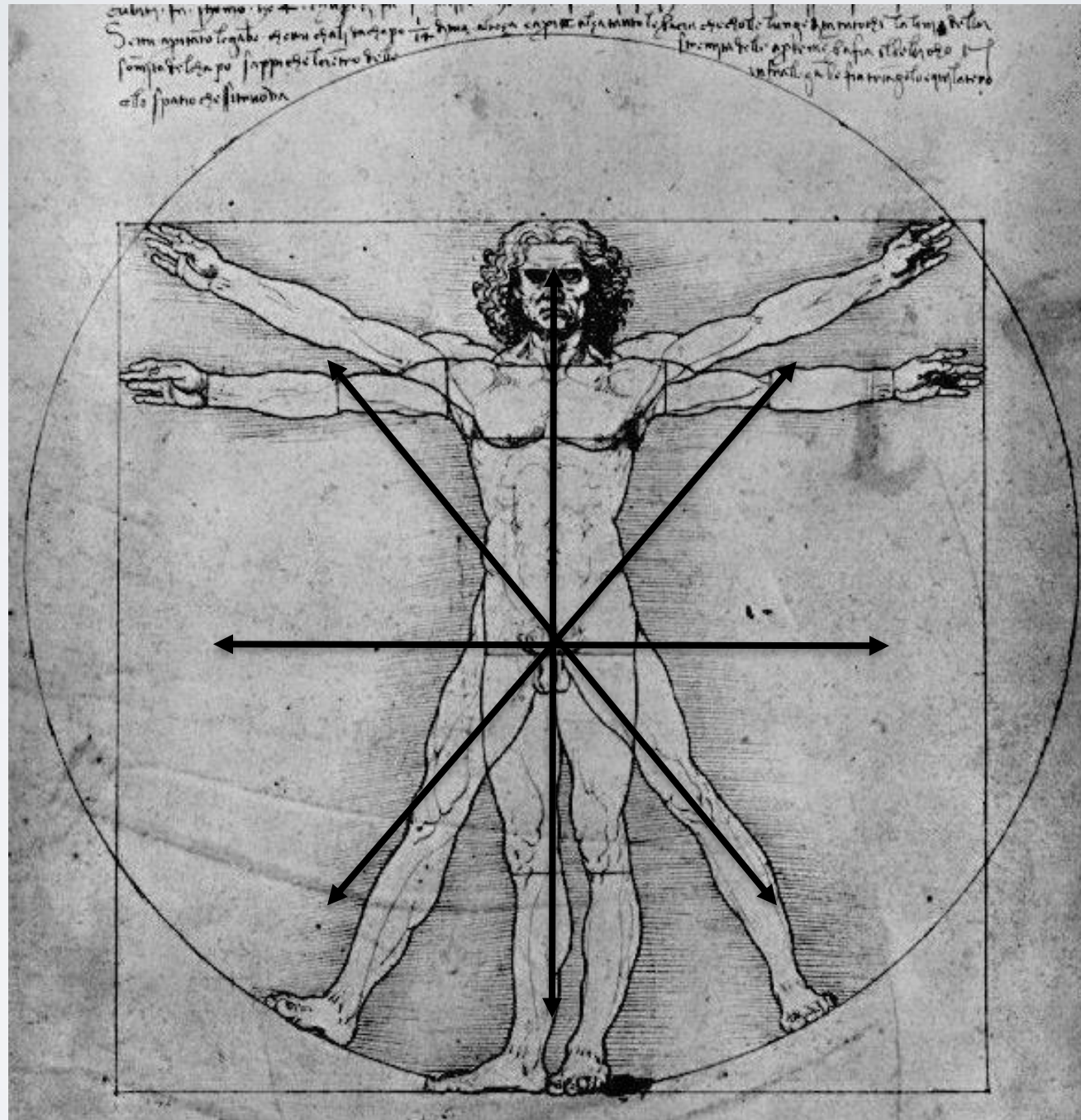
The Low Core is
the Problem:
Childbirth
Too Much Sitting

So Then – What IS Back Rehab Training?

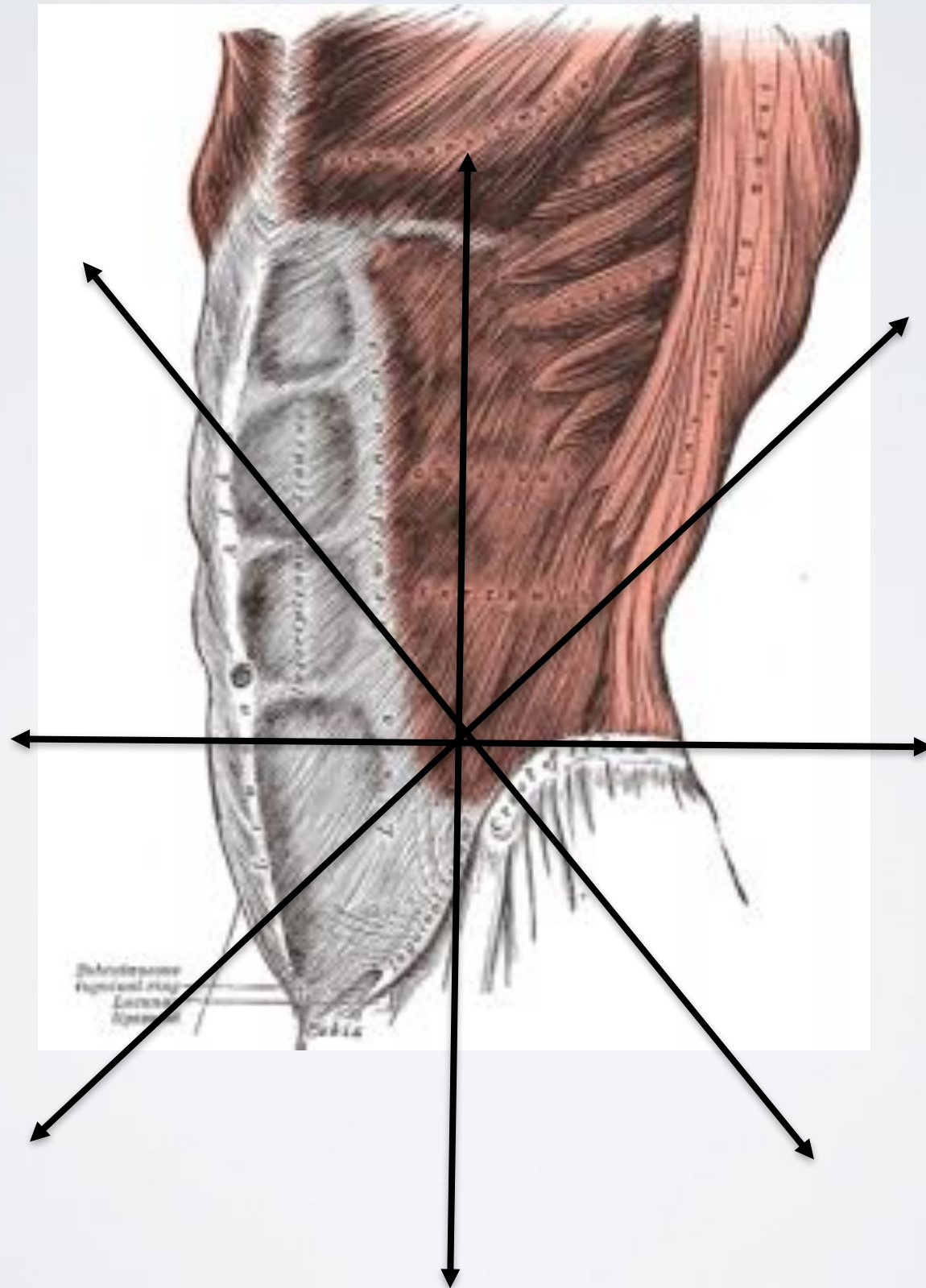
- Increase Thoracic Spine Mobility
- Increase Lumbar Spine Stability
- Increase Hip Mobility
- In Multiple Planes/Vectors
- Utilizing a Variety of Implements
- Emphasizing techniques, exercises and cues to train mobility and stability properly to increase performance and decrease injuries



The Core/Back Must Be Trained in All Vectors for Strength and Stability



From a Variety of Angles



UpperLower Cross Syndrome

Why ?

Strength and Mobility

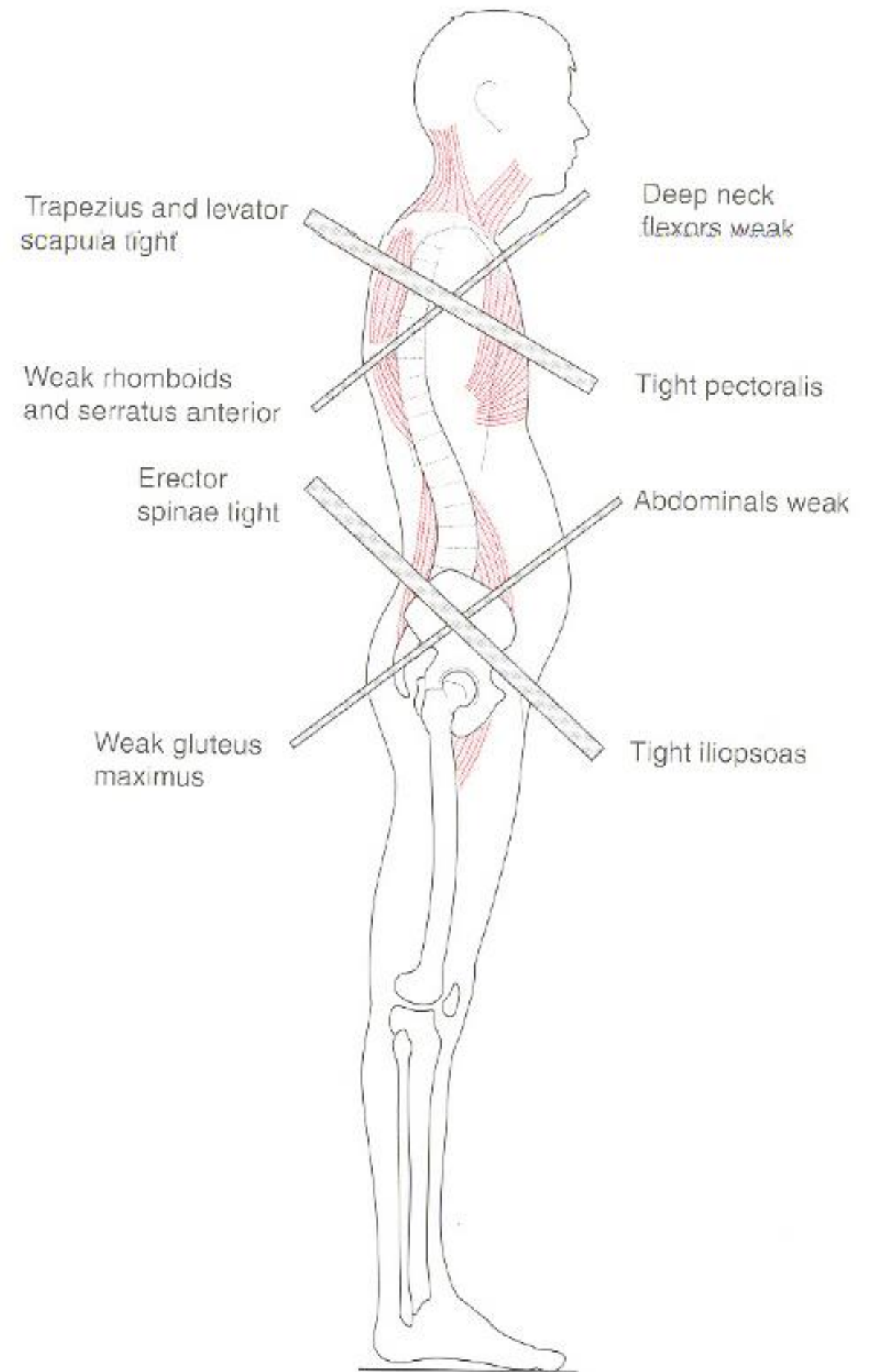
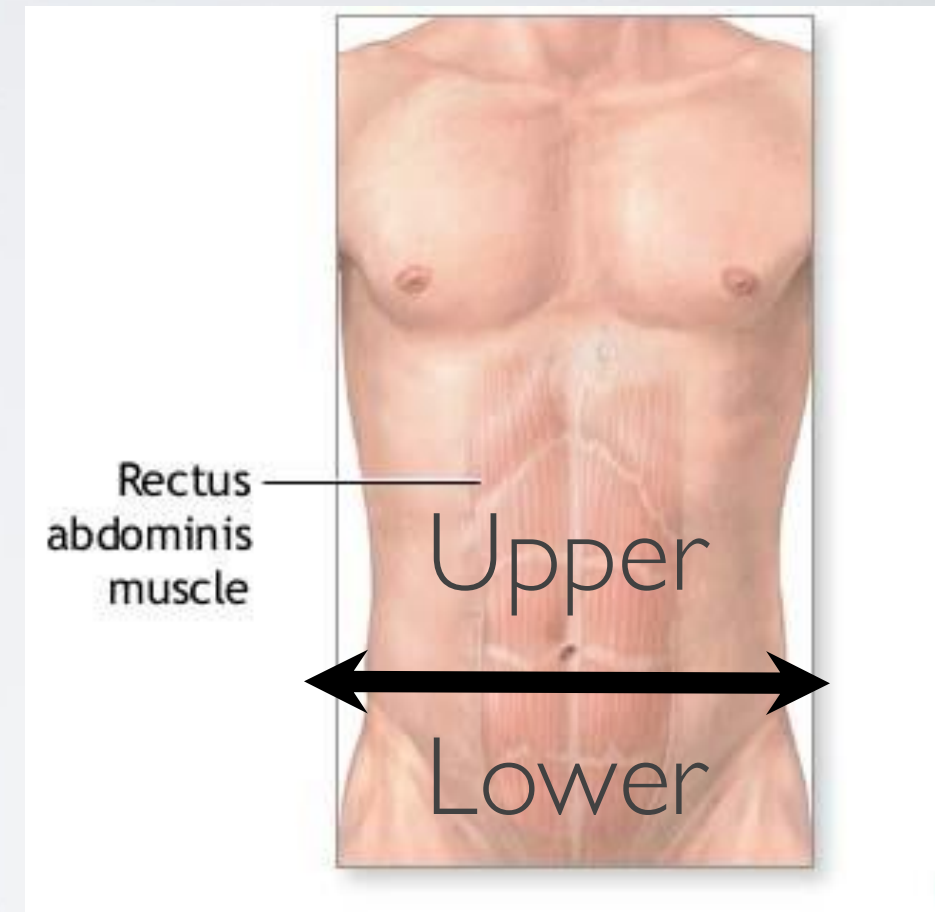


Figure 2.1 The upper and lower crossed syndrome, as described by Janda (adapted from Chaitow (1996)).

Why is “Core” Training Important?

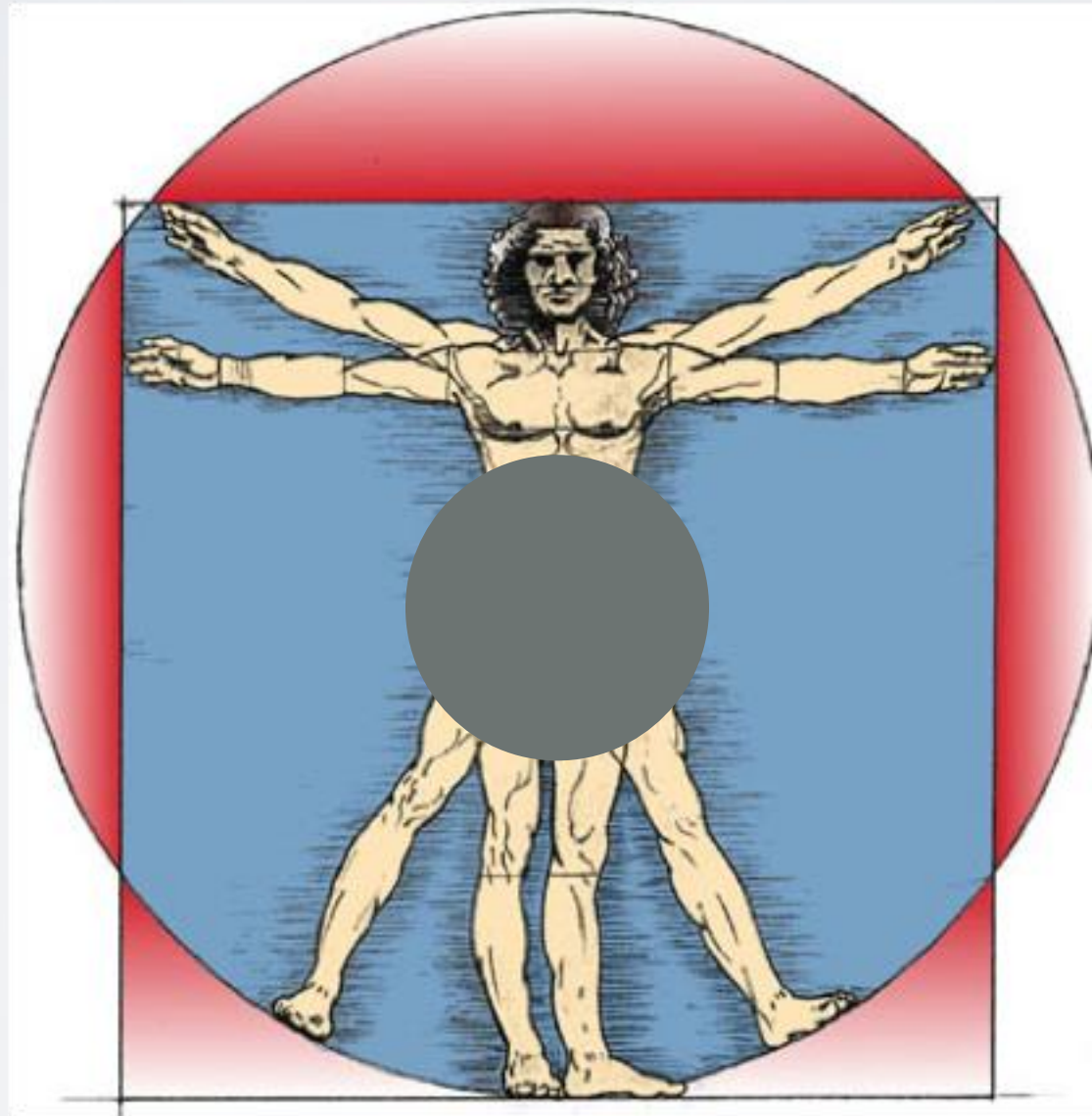
- The lower “core” (hips) generate the power that is needed to walk, jump, trot, hop, skip, gallop, twist, etc. In other words, the lower “core” (hips) allows you to move.
- The upper “core” transmits this power generated in the lower “core” up into the upper body and out into the hands, feet, implement(s)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



Critical Factors

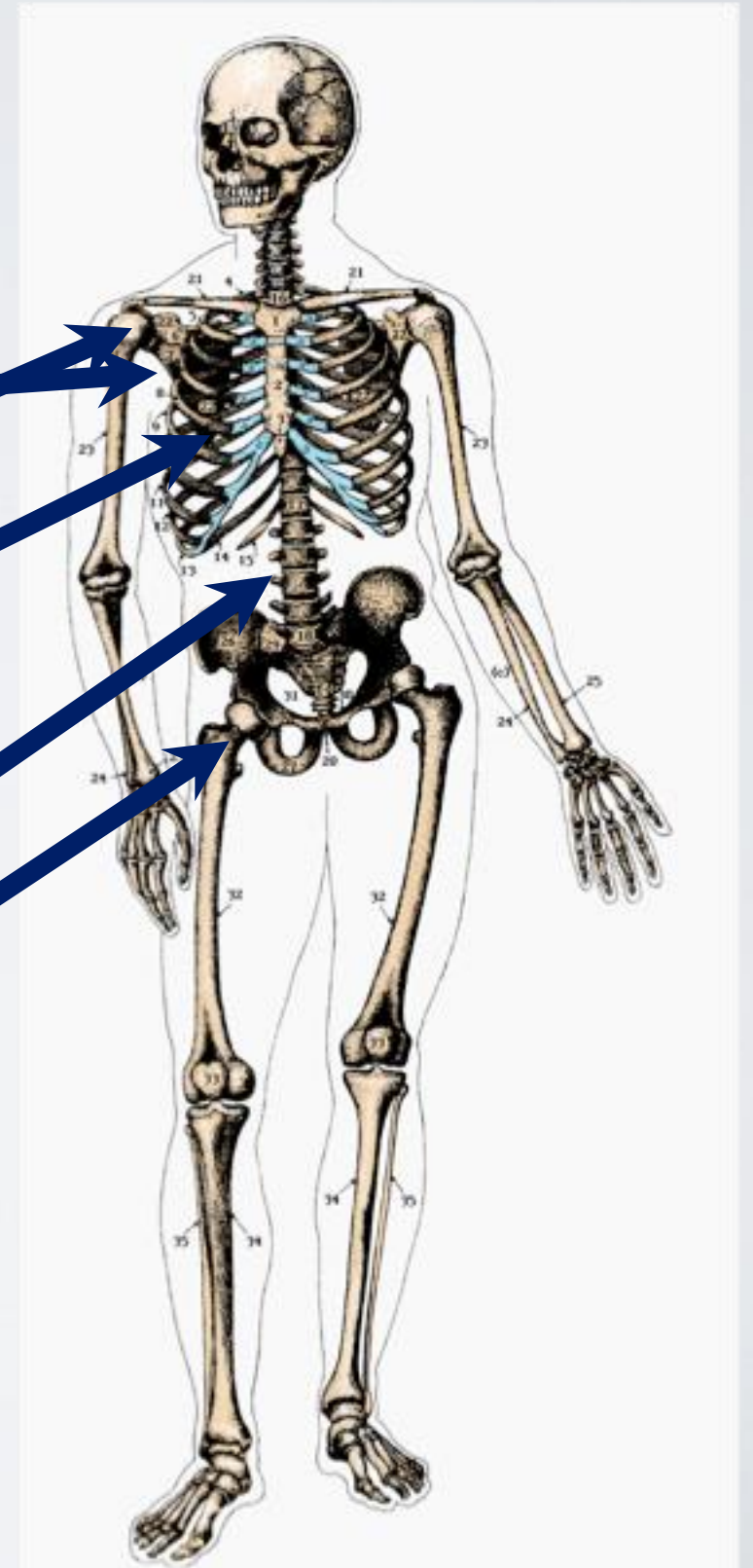
- Core - Defined
- Front Side Sling - “The Rubber Band”
- Back Side Sling - “The Power” - Glute Activation/Strengthening
- Core - “The Transmission”
- Rotary Power Stability Drills
- Rotary Power Strength Drills
- Rotary Power Release Drills

The Core



Key to Optimal Pain Free Movement

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



Tests

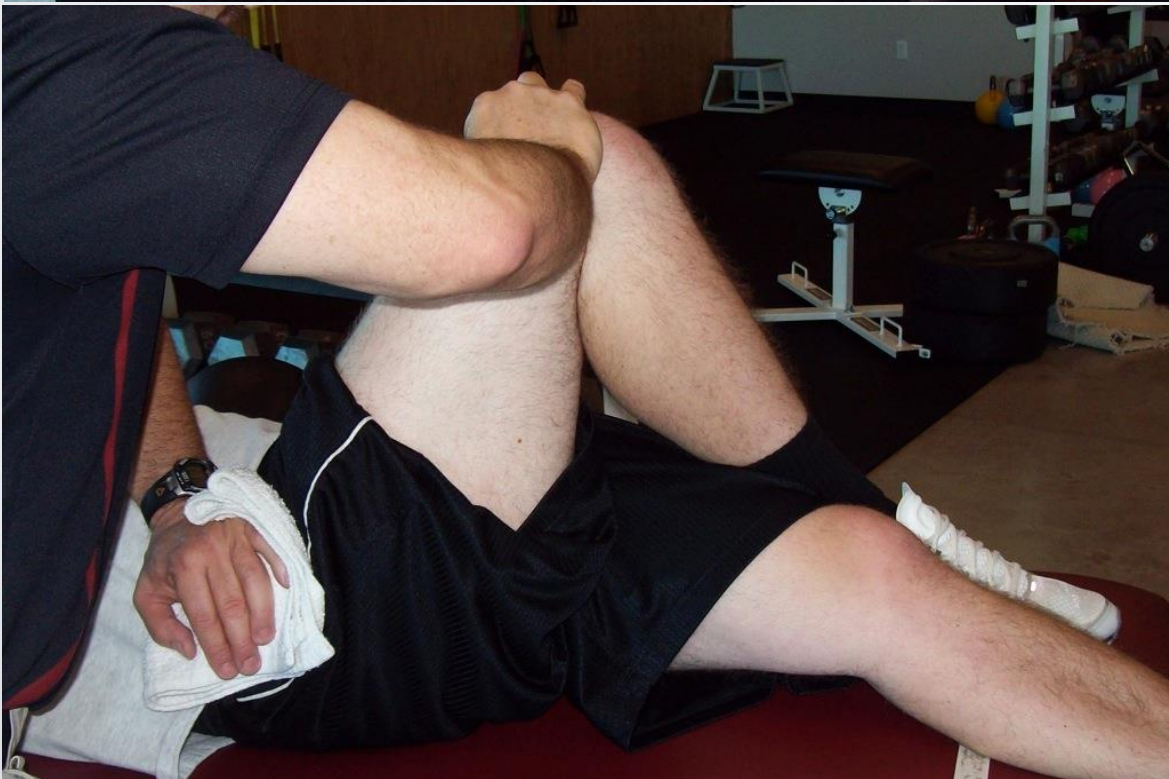
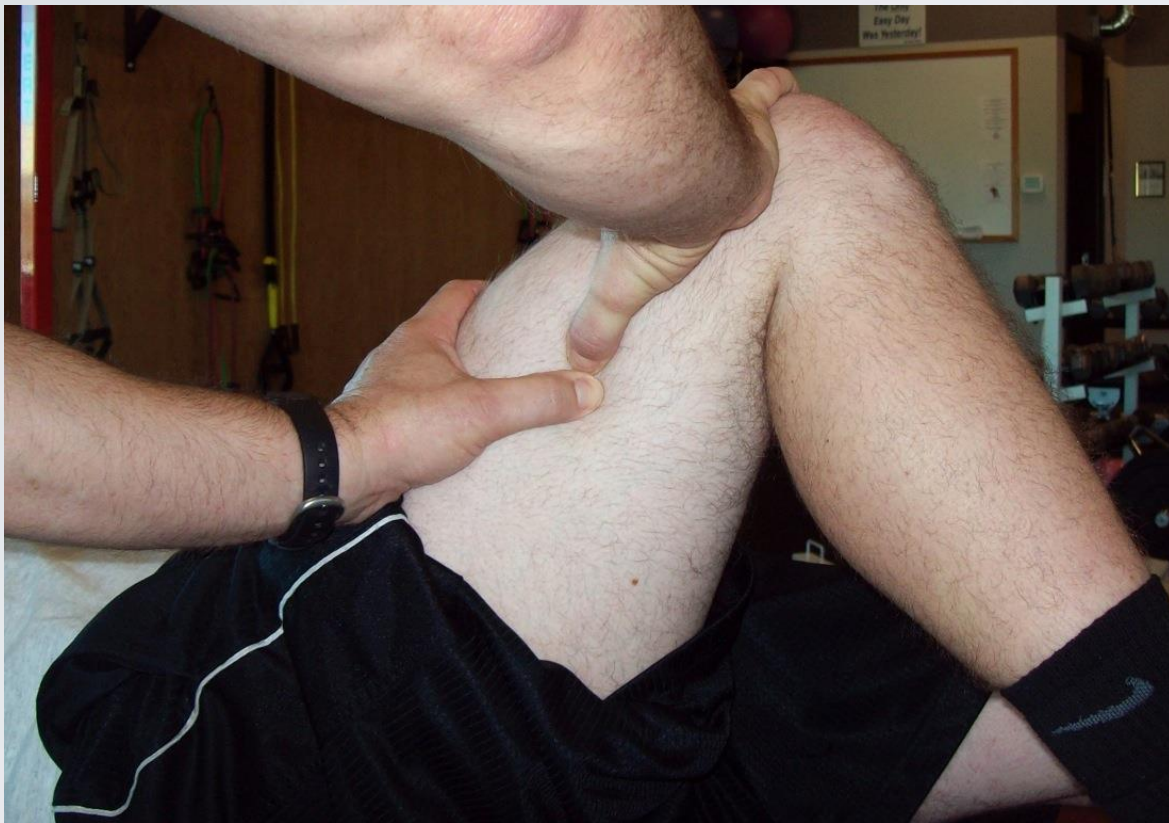
- 90 – 90 Thomas Test
- Glute Extension – Knee Straight & Bent
- Hip Rotation – Seated and Prone
- Leg Length
- Psoas Length – hands / feet
- Half Kneel Rotation (Open Book)
- 1/4 Squat Wall Slide vs. Supine Floor Slide
- Sit and Reach vs. 90 – 90 Hamstring Test
- Prone Shoulder Raise Test
- Hesch Method
- Cook Hip Lift
- McGill Squat Test
- Prone Shoulder Raise

IT Band

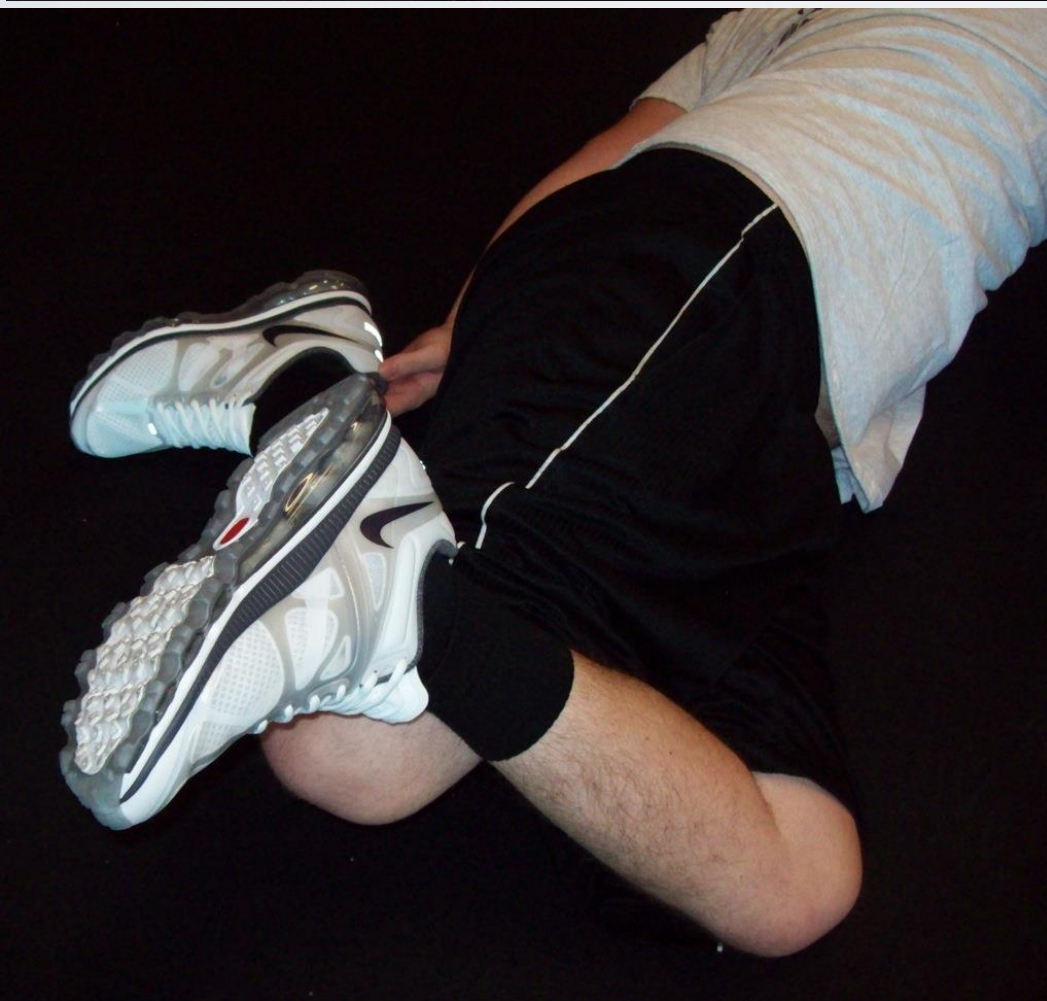


- Critical for lateral front side leg hip rotation (golfers and throwers)

IT Band Release/Stretch

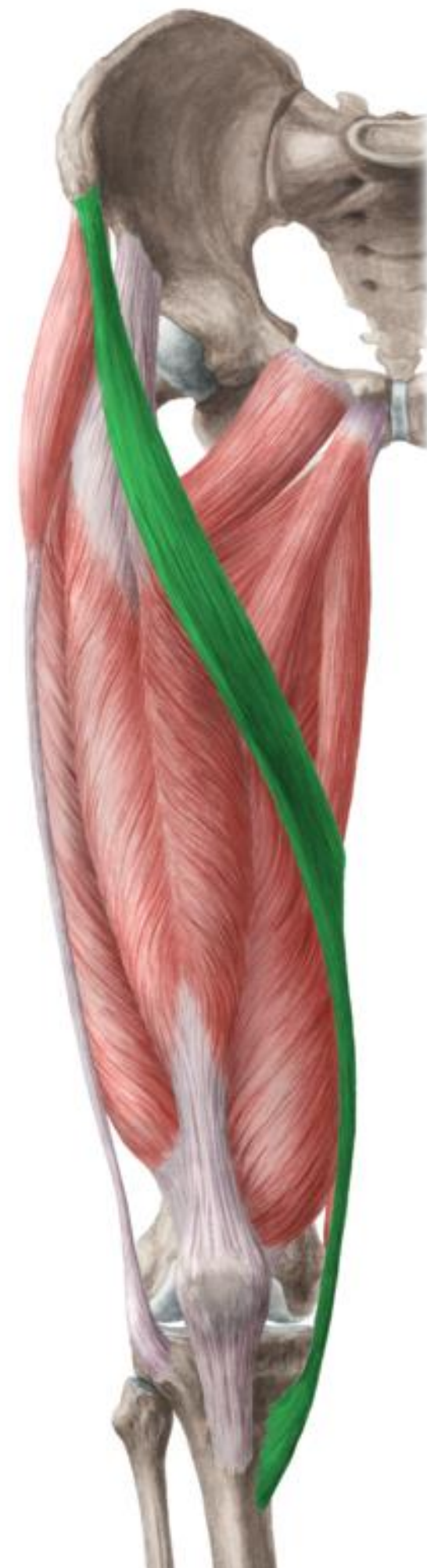


Front Side Sling Self Release (Lacrosse Ball)



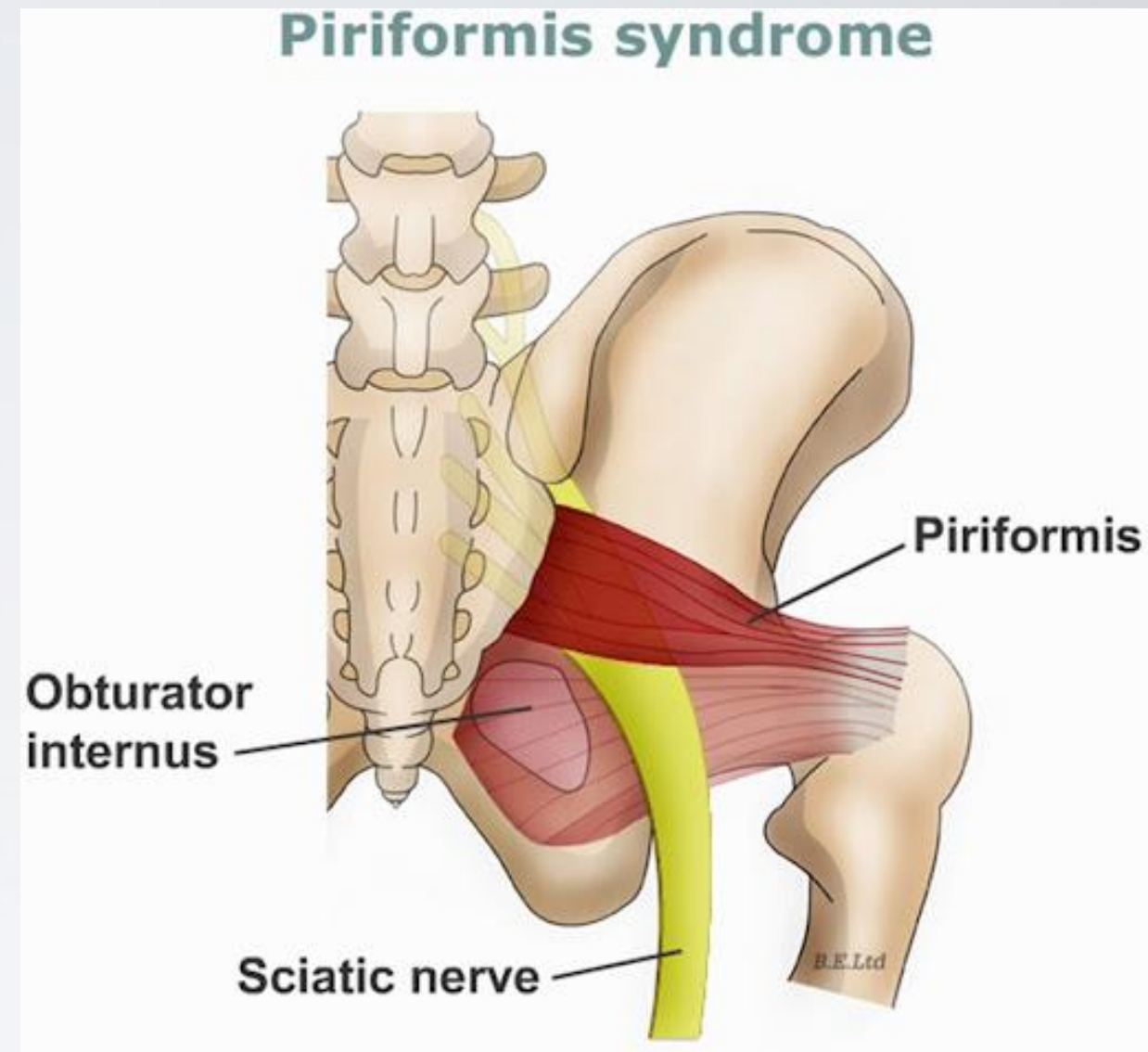
Sartorius

Critical For Internal Rotation



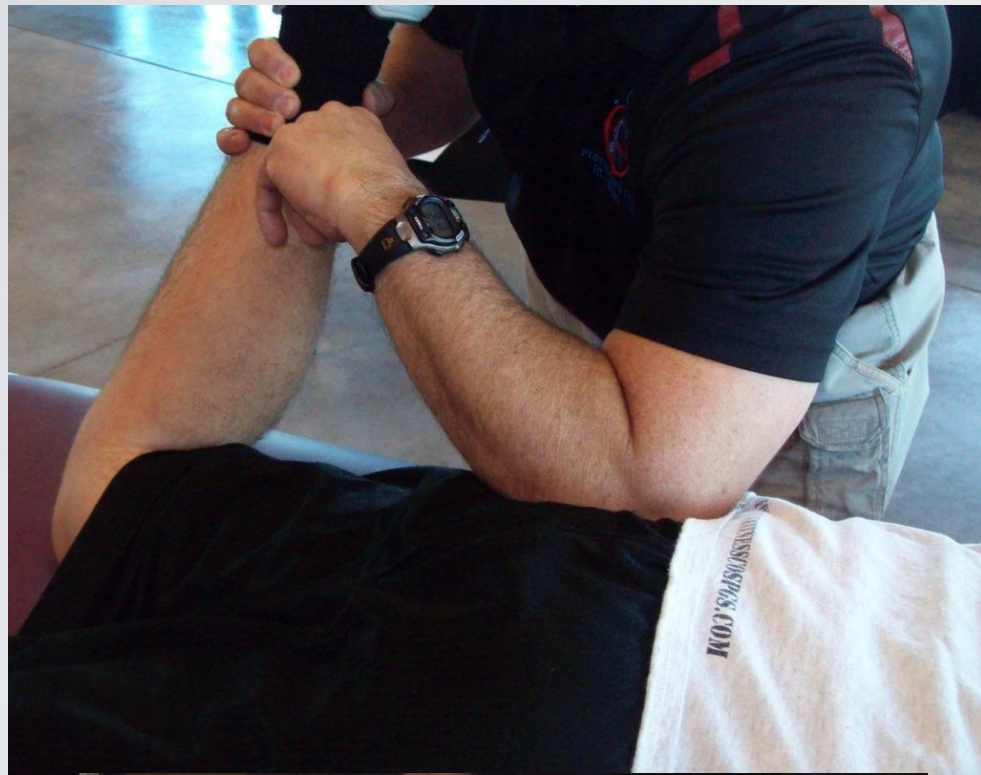
Piriformis

Critical for Rotation as well . . .

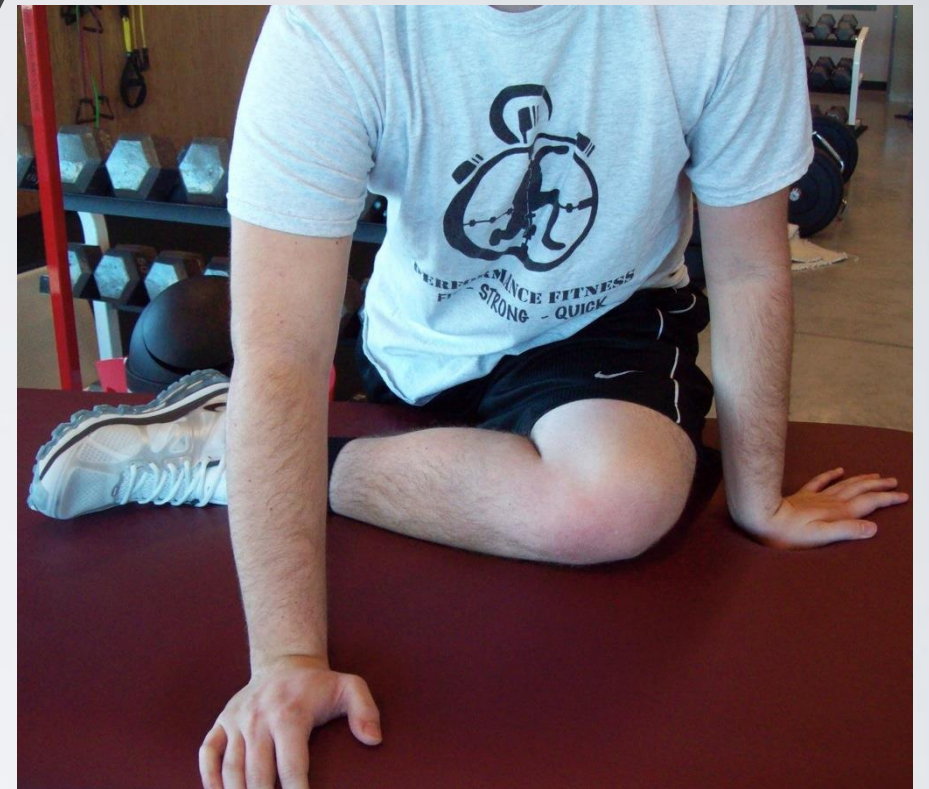


Front Side Sling Release

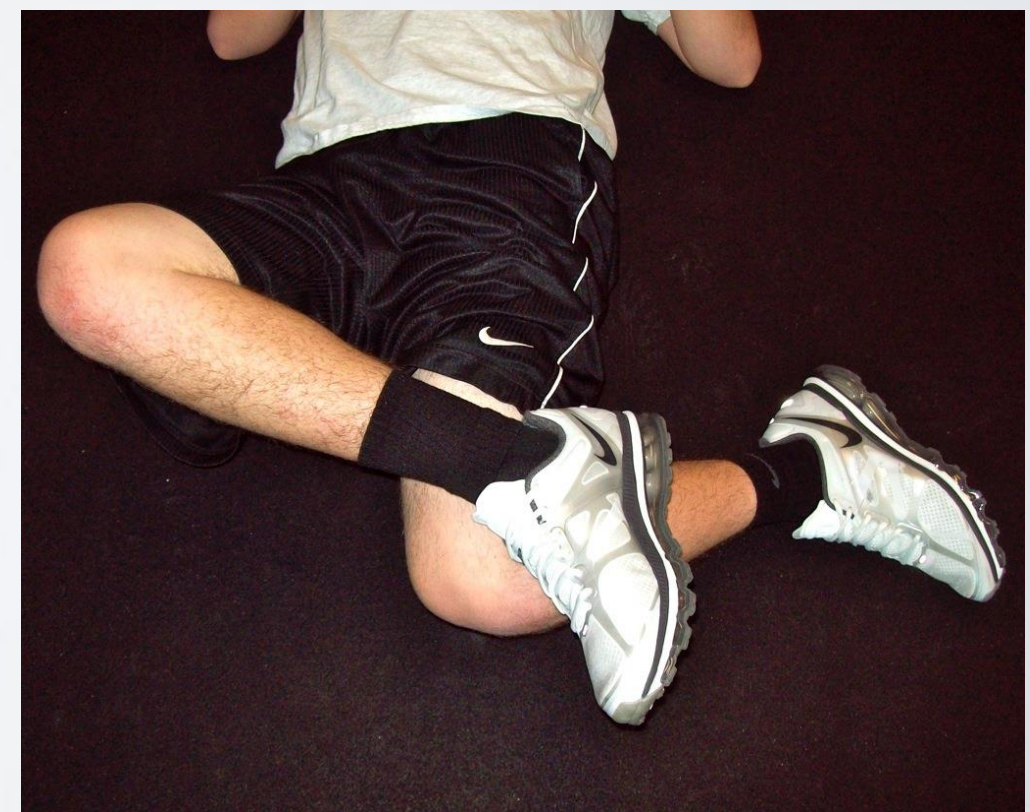
Hip Mobility



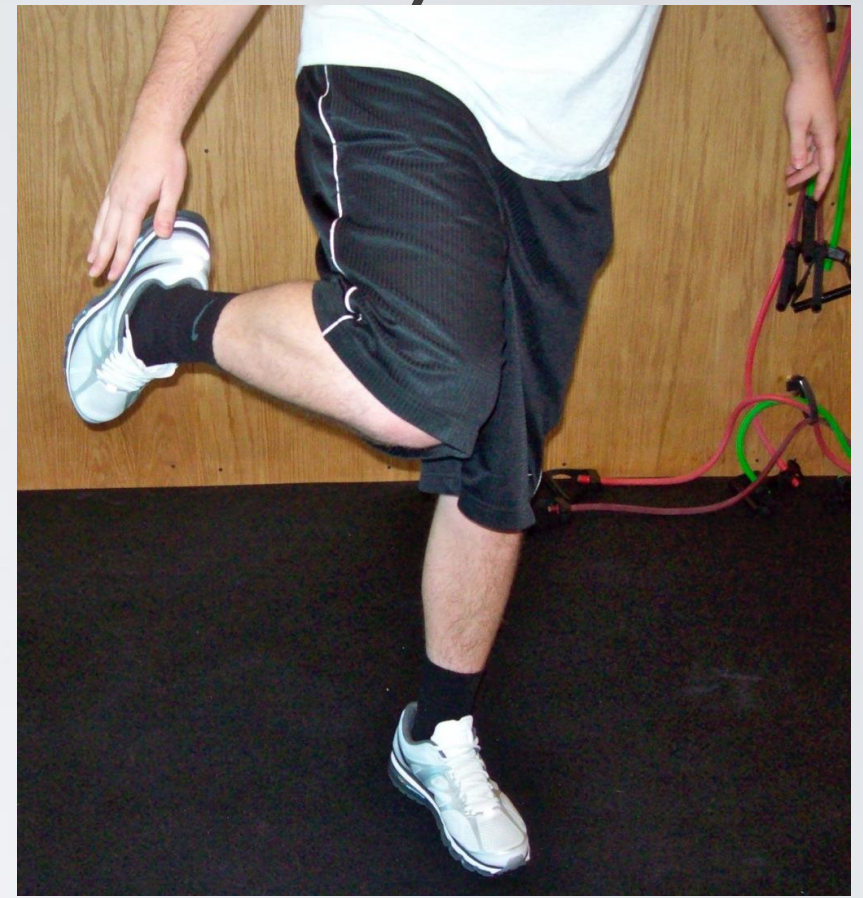
Piriformus



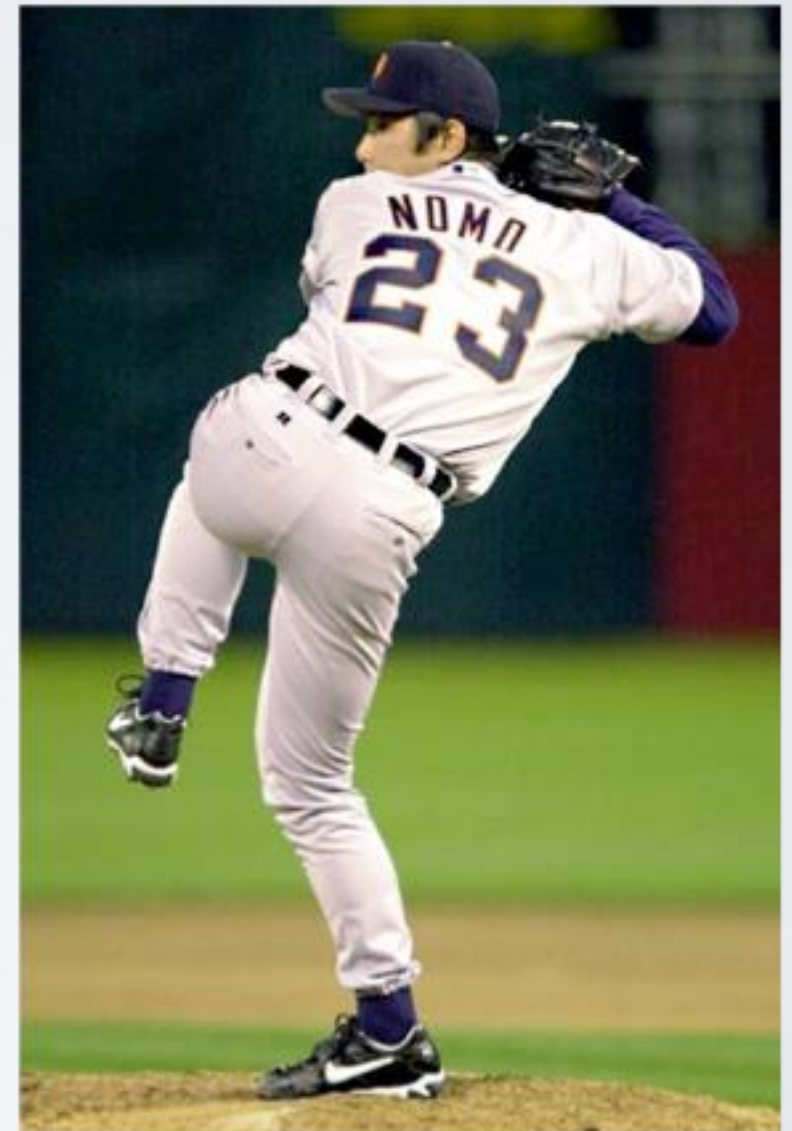
Sartorius



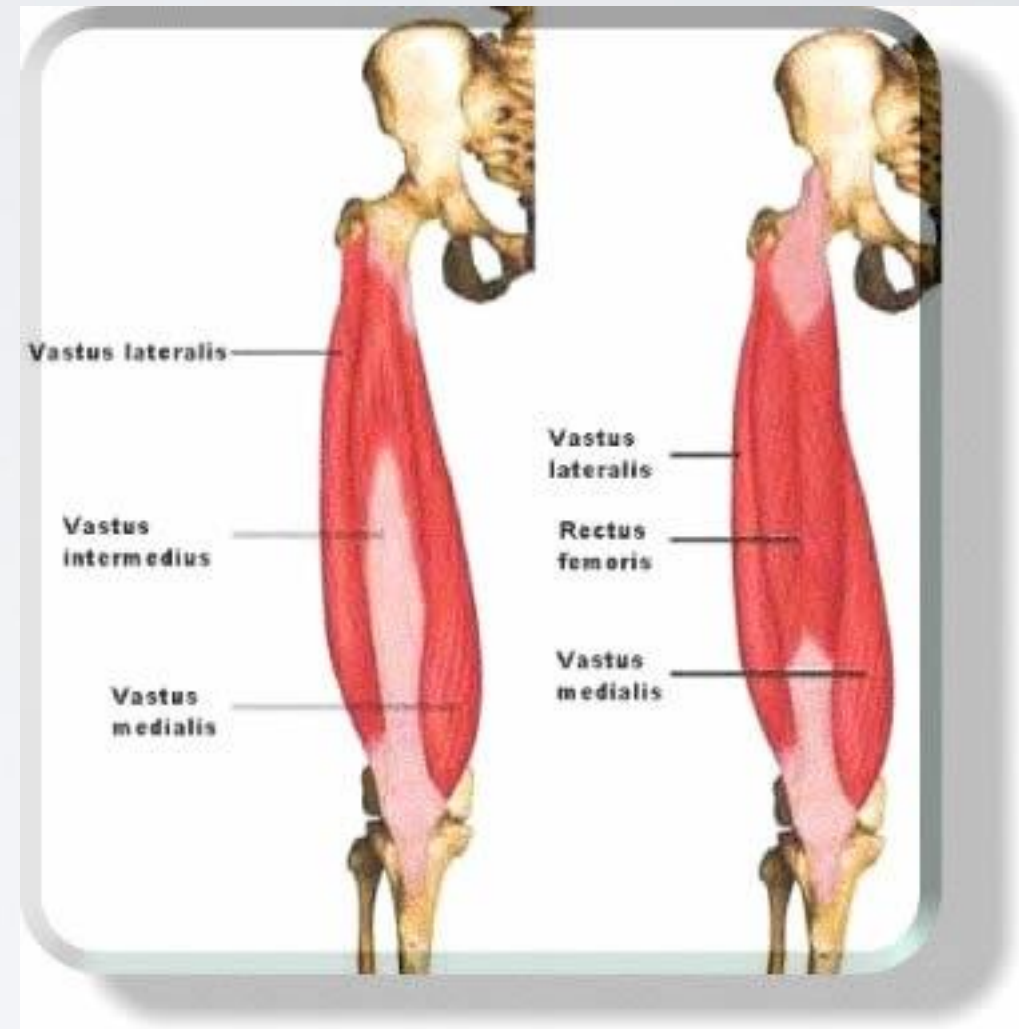
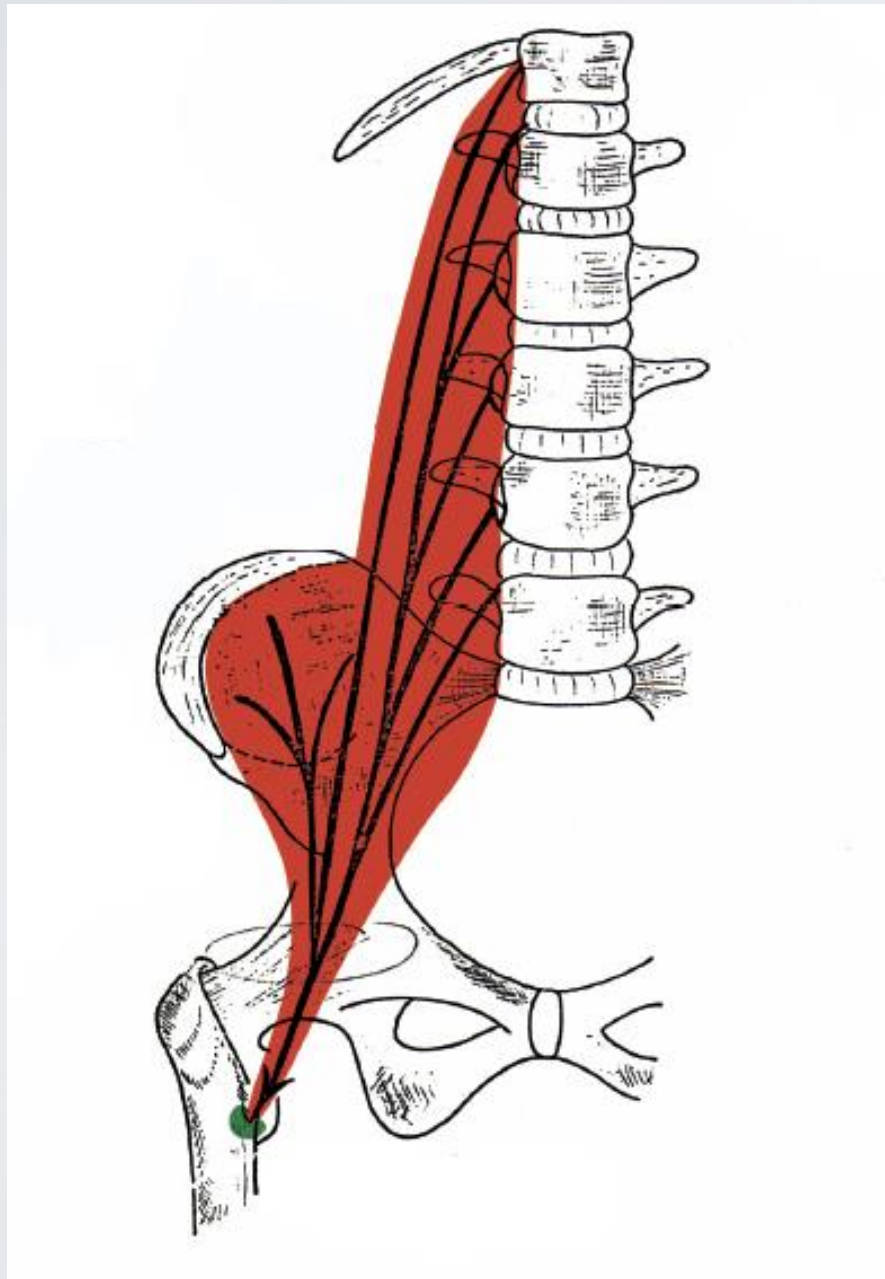
Dynamic Hip Mobility



Internal Rotation Important?!?



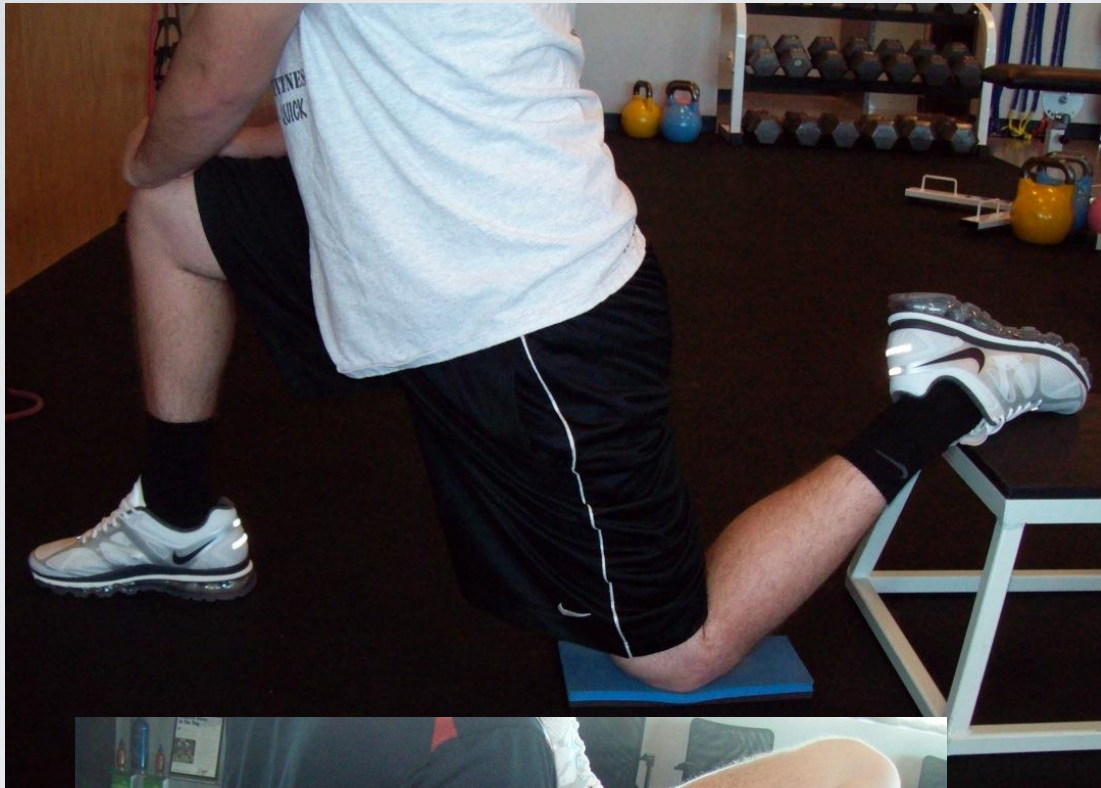
Iliacus - Psoas - Quadriceps



Iliacus - Psoas Release



Hip Flexor - Iliacus - Psoas - Quad Stretch



Band Hip Stretches



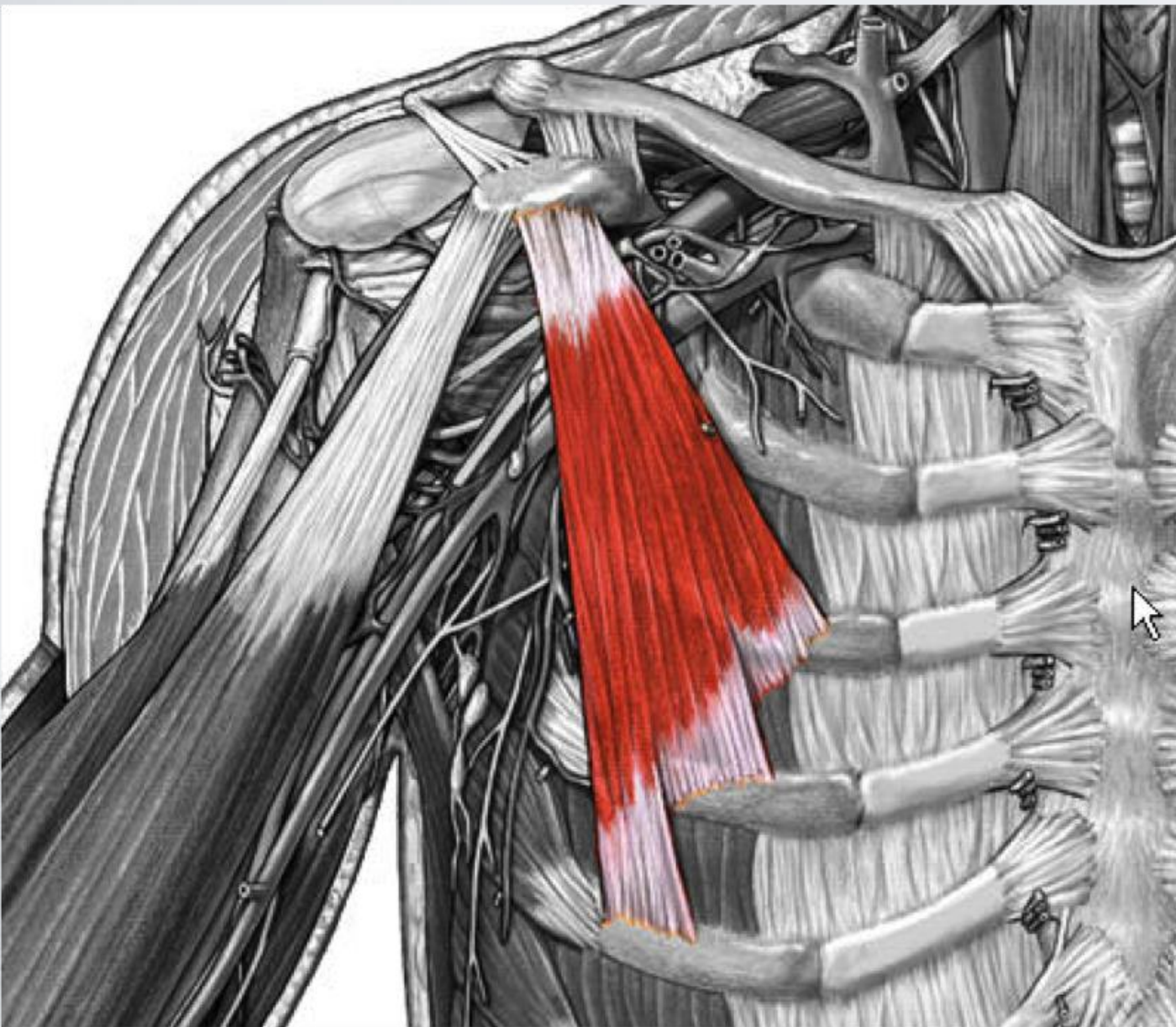
Band Quad – Hip Flexor Stretch



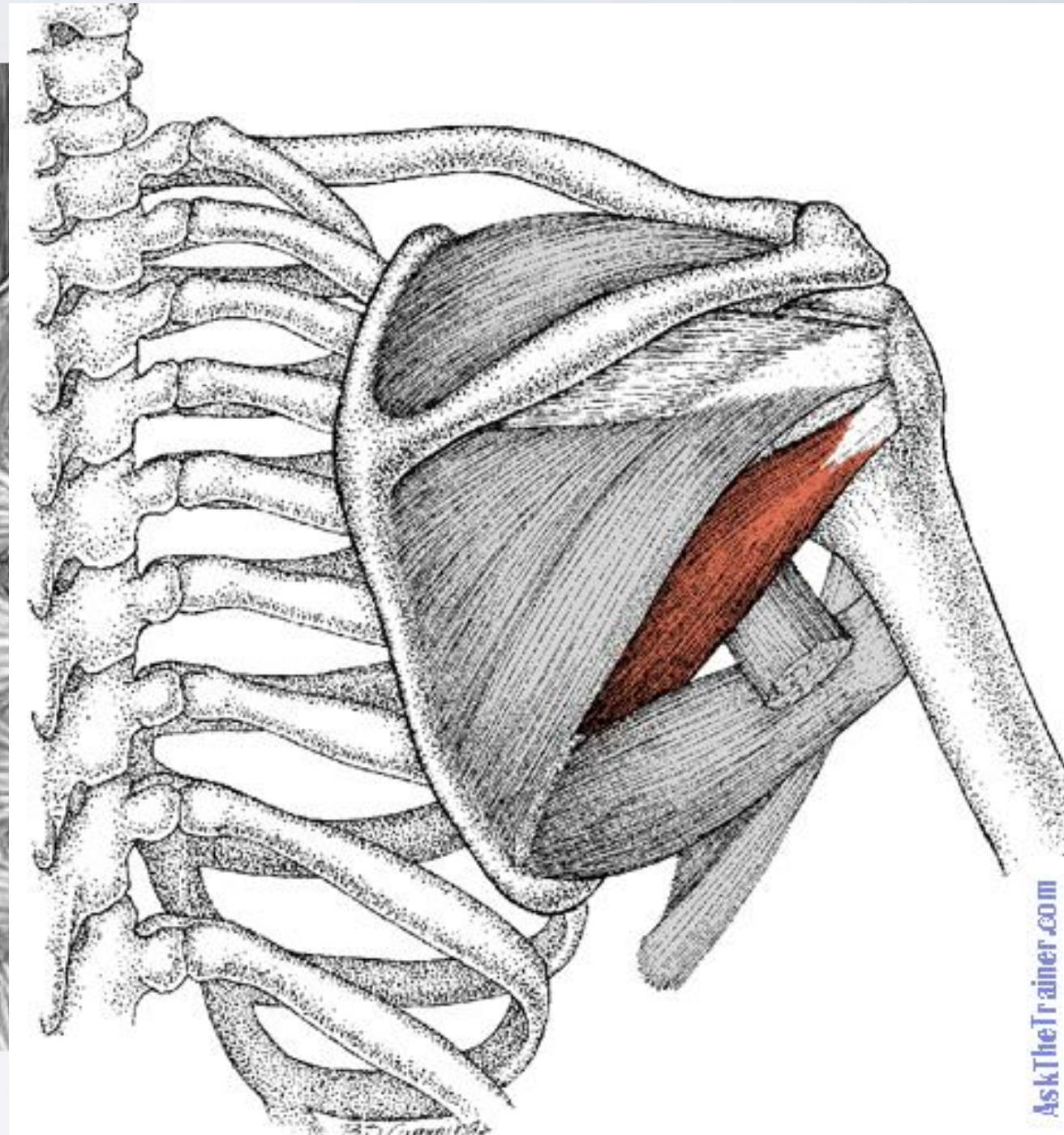
3 Way Band Hamstring Stretch



Pec minor - Teres minor



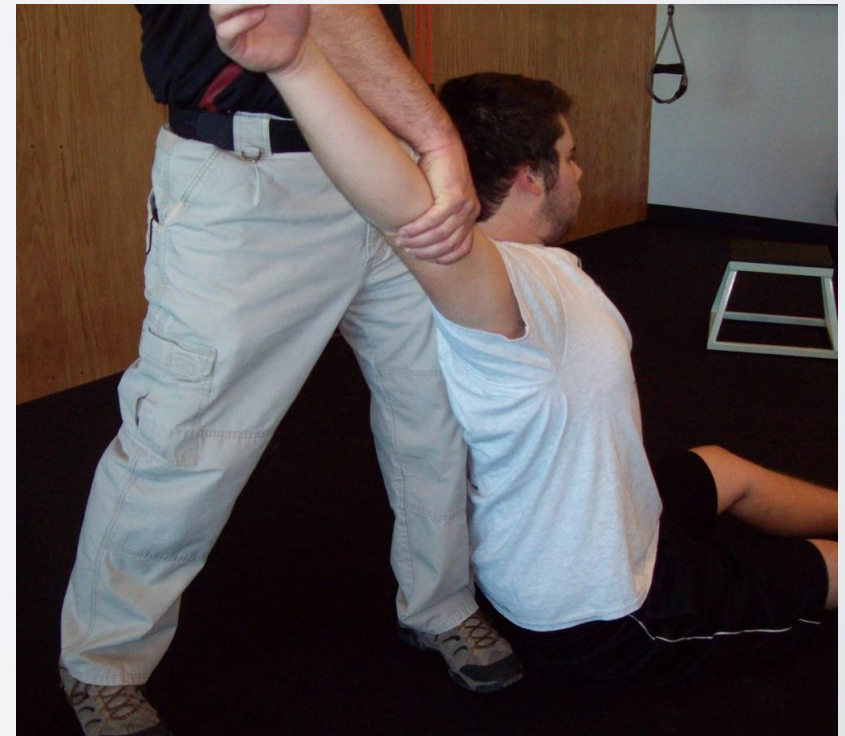
pectoralis minor



Front Side Shoulder Release



Front Side Shoulder Stretch



Shoulder Stretch con't



Band Shoulder Stretches



Core Training Protocol Patterns for Static Strength / Stability / Power

- Planks
- Stability Ball
- 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

- Unilateral DB / Foam Roller Sequence
- Unilateral DB / Ankle Wt Stability Ball Sequence
- Chops / Lifts
- Scoops / Slams
- Twists / Slides

Unilateral Loading Protocols

- Vertical Push
 - Single Leg
 - Incorporating Step — Ups / Step — Downs
- Horizontal Push
 - On a Bench / Stability Ball
- Vertical Pull
 - 1 Arm Pulls
- Horizontal Pull
 - Single Leg / 1 Arm Rows

Suspension Training Is...



Vector: adding or reducing resistance by changing the angle

Stability: using ones' base of support and center of gravity to achieve varying levels of intensity

Pendulum: shifting of ones' body weight either towards or away from the established anchor point

Areas of Focus for Injury Prevention

- Glute Recruitment
- Quadratus Suppleness
- Groin Suppleness / Strength
- Hip Flexor Suppleness
- Glute Med Strength
- Lower Core Strength/Stability
- Lumbar Spine / Core Patterns of Loading
- Hip Internal/External Rotation

Pattern, Progression and Programming

- Pattern of Movement
- Progression of Pattern Continuum
- Programming
 - Protocol Implementation to Create the Training Effect
 - Controlling the Variables in Order to Enhance Training and Limit Over – Training

Patterns of Movement

- Bendover /Extension – Hinging at the Hip
- Chop / Lift – Diagonal Plane Movements
- Twist / Slide – Side to Side Movements
- Slam / Scoop – Down and Up Skills
- Curl / Hyperextension – of Trunk
- Pillar Core Stability With 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

Practical Application for Law Enforcement

Stability Ball Wrestling



Baton Wrestling

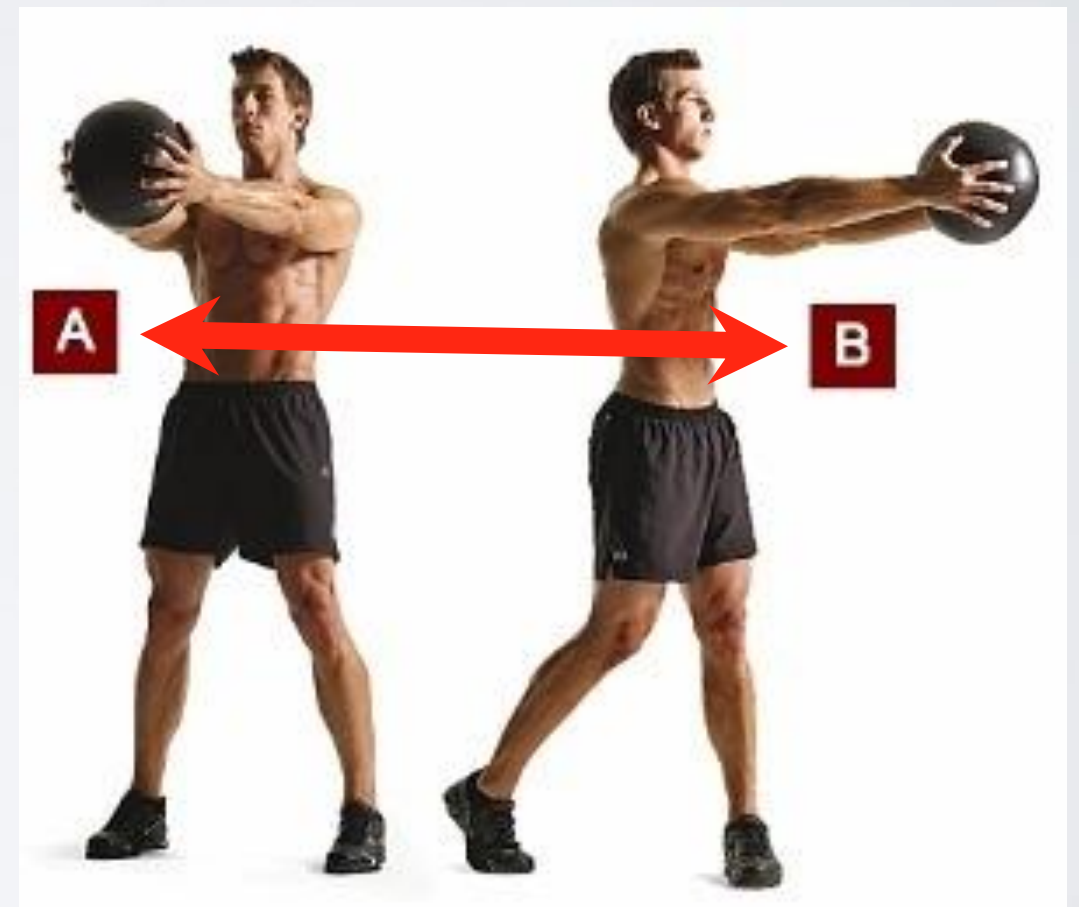
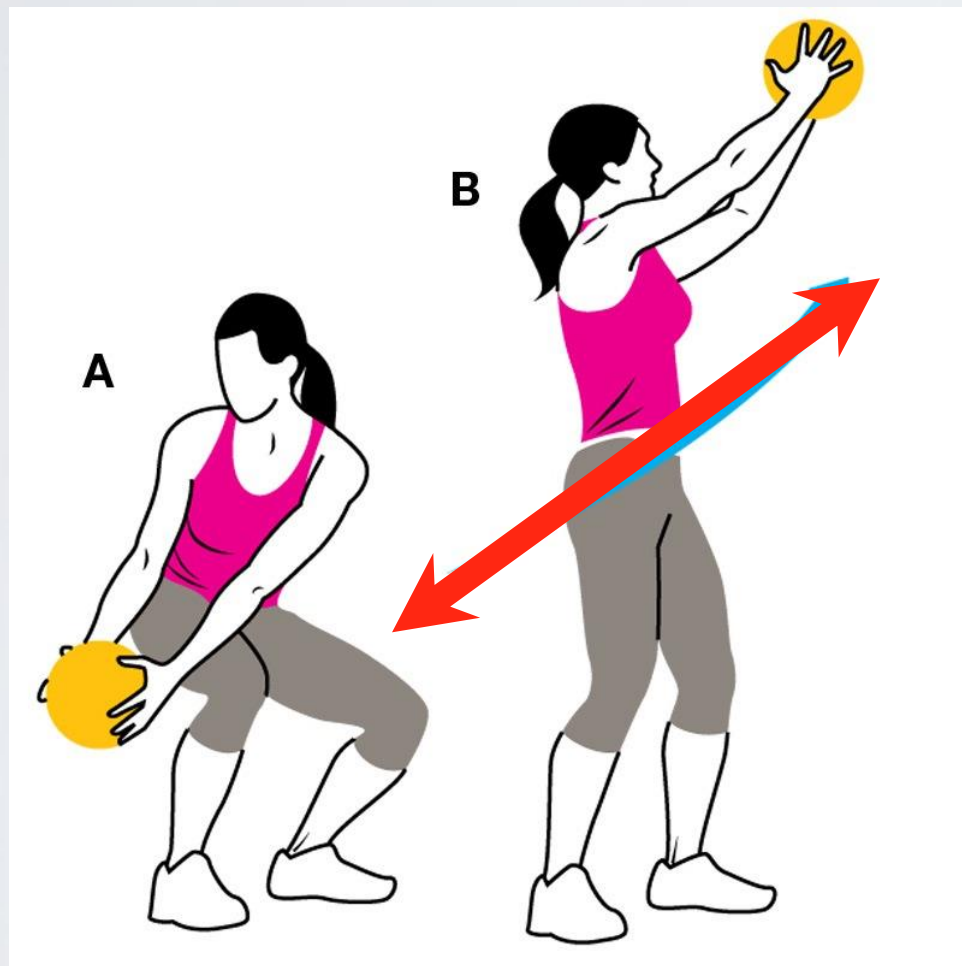


Glute Activation



Core Transmission

chop - lift - twist



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)

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)

thank *you!*

Contact: CoachRobbRogers@gmail.com