



# 2025 ABS & CORE USA GYMNASTICS REGION 5 CONGRESS

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CLINICS, LECTURES, TREATMENT, SPEAKING, 1:1

# WHAT IS THE CORE?

What does it do?

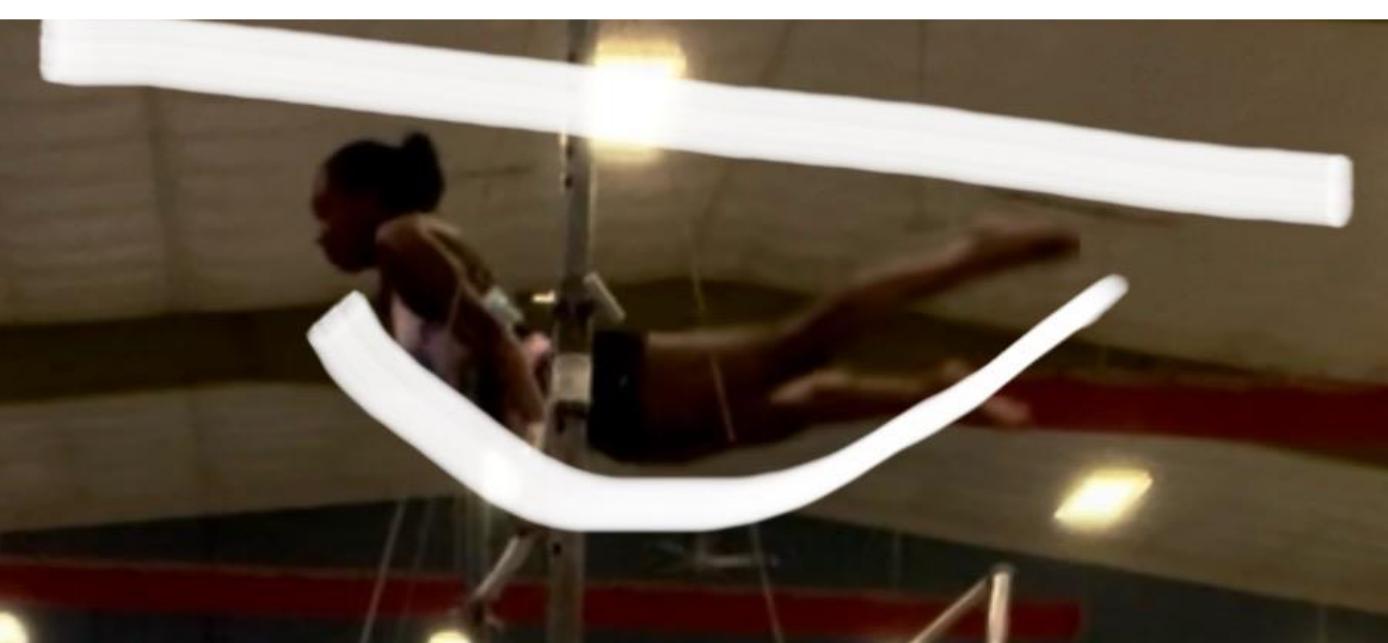
- Stabilizes and allows motion
- Mitigates spine pain and provides support
- Allows force transfer

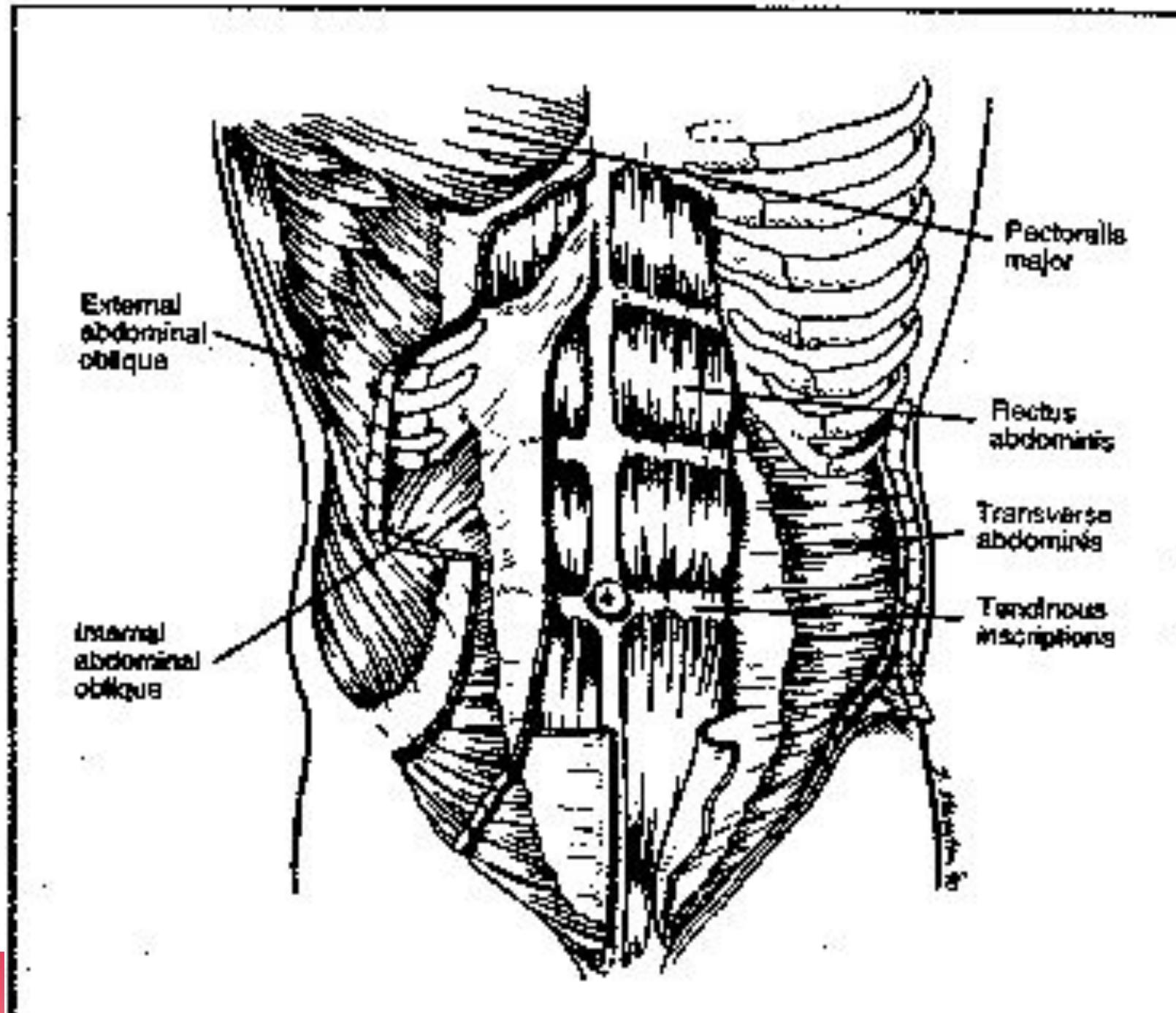
Where is it?

- Easy answer? Midsection!
- Primary: abs
- Secondary: rib intercostals, hip rotators, anything attaching to pubic symphysis, spine muscles

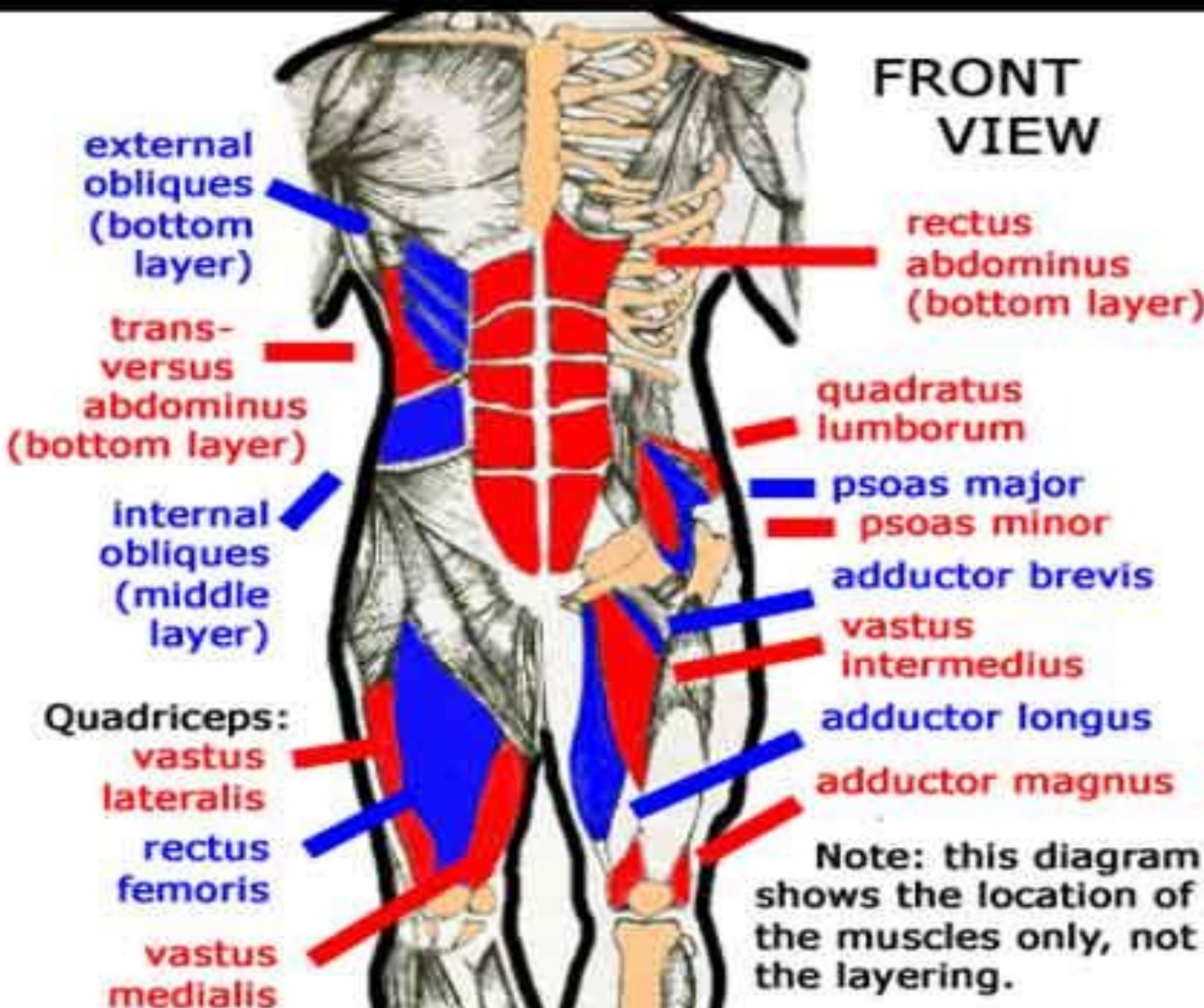
How do we use it?

- Contract it to move (isotonic)
- Contract it to HOLD (Isometric)
- Contract it while other things are moving to provide base (UE and LE)
- Contract to transfer force

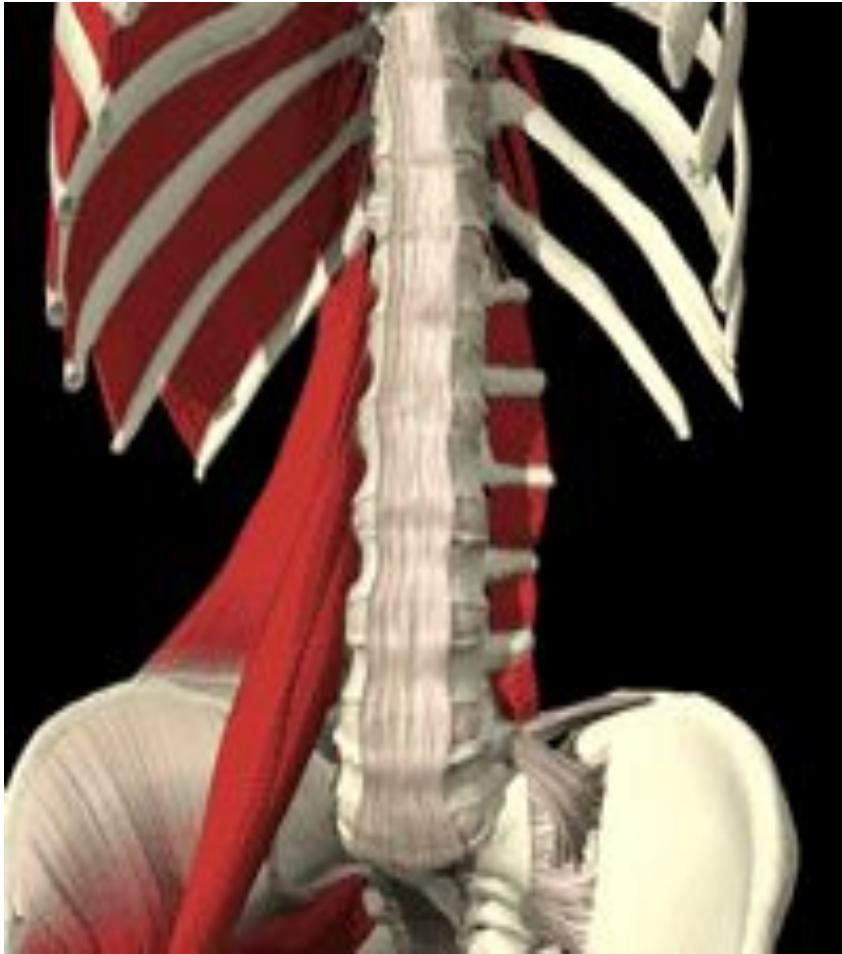




## FRONT VIEW



# PSOAS



- Makes the hips 'dump' forward, or anteriorly rotate
- Butt out posture
- Very painful to touch

# 1. EARLY EDUCATION

- The early years
- Core positioning at first
- Core awareness second
- Core posturing third
- Core education and innate positioning fourth
- Core stability last

## 2. EARLY INTERVENTION

Lordotic awareness

Proper observation and monitoring

Spondy... once a spondy, always a recovering!

Parental awareness– the importance of carry-over

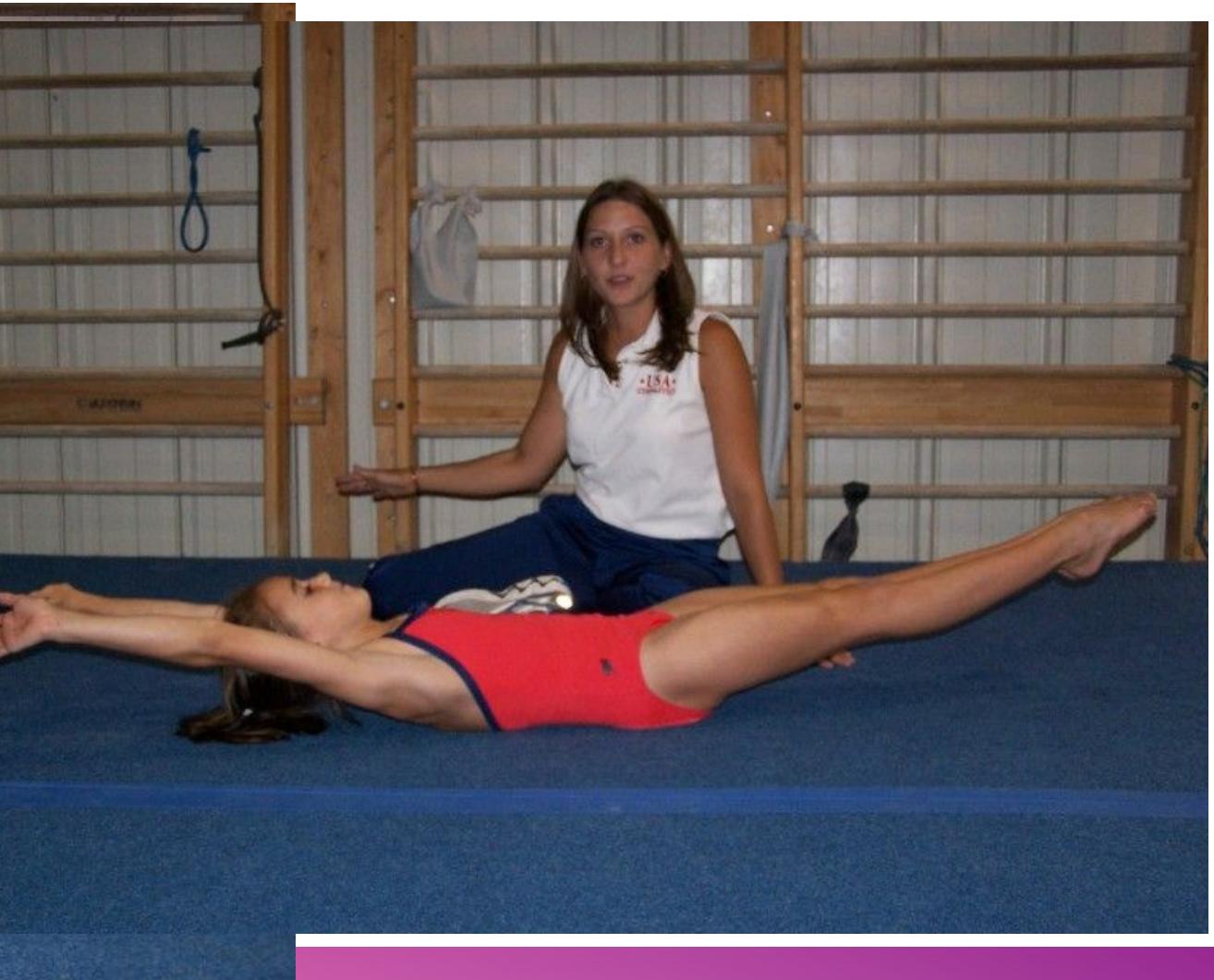
### 3. STRENGTH AND CONDITIONING

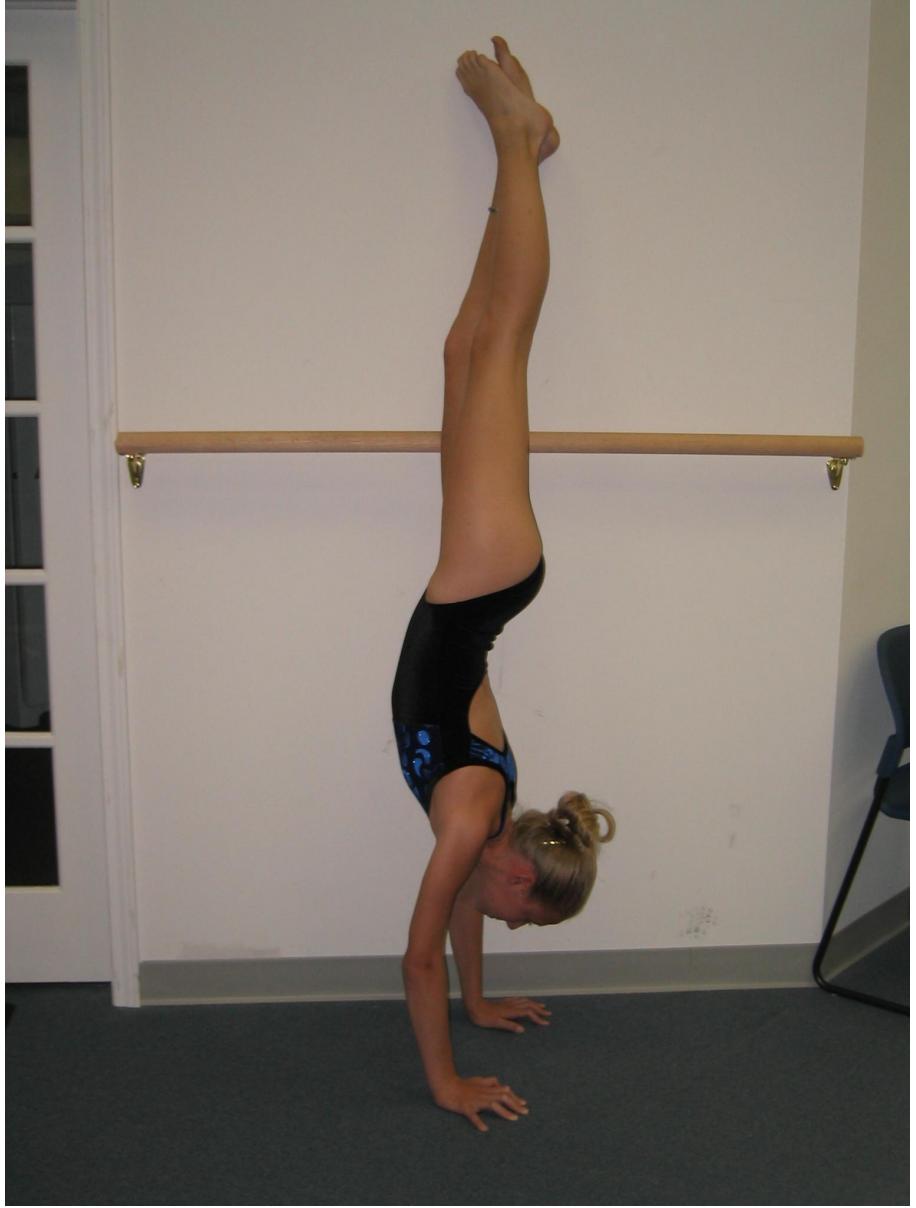
- FORM FOLLOWS FUNCTION
- How you train is how you perform
- The importance of Vertical Body Awareness (VBA)
- Monitor!
- $\frac{1}{2}$  motion,  $\frac{1}{2}$  stability
  - Tricks that require stability
  - Tricks that require hinging/mobility
  - Isolation
    - Free hip- isolate shoulders, core stab
    - Maximize plyometric potential

## 4. DETAILS- PREVENT OVERTRAINING/MISTRAINING

- The idea of the TIGHT HOLLOW
- Compensations include:
  - 1) rib rocking
  - 2) hip flexion
  - 3) inversion weight balancing (rib tilt + hip flexion to ensure center of gravity over hands (COG)
  - 4) sucking in

# HOLLOW: RIGHT AND WRONG





# PRACTICAL APPLICATION

- Stand up, lets go!
  - Hip anterior tilt
    - Arching
    - Lordosing
    - ASIS and xiphoid (breast bone) further apart
    - Stomach muscles stretch
    - Rib tilt posterior
    - “dump the bucket” out forward
    - Also stretches hamstrings
  - Hip posterior tilt- opposite

## LAYING DOWN

- Eliminate other mm fighting gravity
- Much taken from Shirley Sahrmann exercises
- Mistake – posterior pelvic tilt when you really want isometric activation or keeping the ribs and the hips in *relative* neutral while the spine un-lordoses itself!
  - Feedback – blood pressure cuff, hand, etc.

# BIOFEEDBACK – ADAPTED SAHRMANN METHOD



Blood Pressure Cuff



Each gym should have at least one for every 5 team athletes



Use for BIOFEEDBACK for ab training



As lordosis decreases, pressure rises



If it rises too much, rectus is used



If holding breath, ribs come out and cannot speak or breath, obvious other complications!

# BASICS



Oscillate

Oscillate  
between 40  
and 60,  
learn  
control

Hold

Hold for  
10-60  
seconds

Hold

Hold while  
speaking

# STEP 2, BASIC LEG RECRUITMENT



If the rectus  
works, shoot  
above 60

Step 2

If the hip flexor  
works too hard,  
the back will arch  
(remember  
attachments and  
hip tipping  
tendency)

Starting to move  
the legs

Teaching the  
body that the  
legs and abs can  
work together

# STEP 3- QUAD INVOLVEMENT



- Step 3
- Begin single leg extensions
- Must get to ALL the way straight (terminal quad extension)
- This pulls in all of the quads, making the abd have to work harder to pull opposite, to DISALLOW the hips from anteriorly rotating

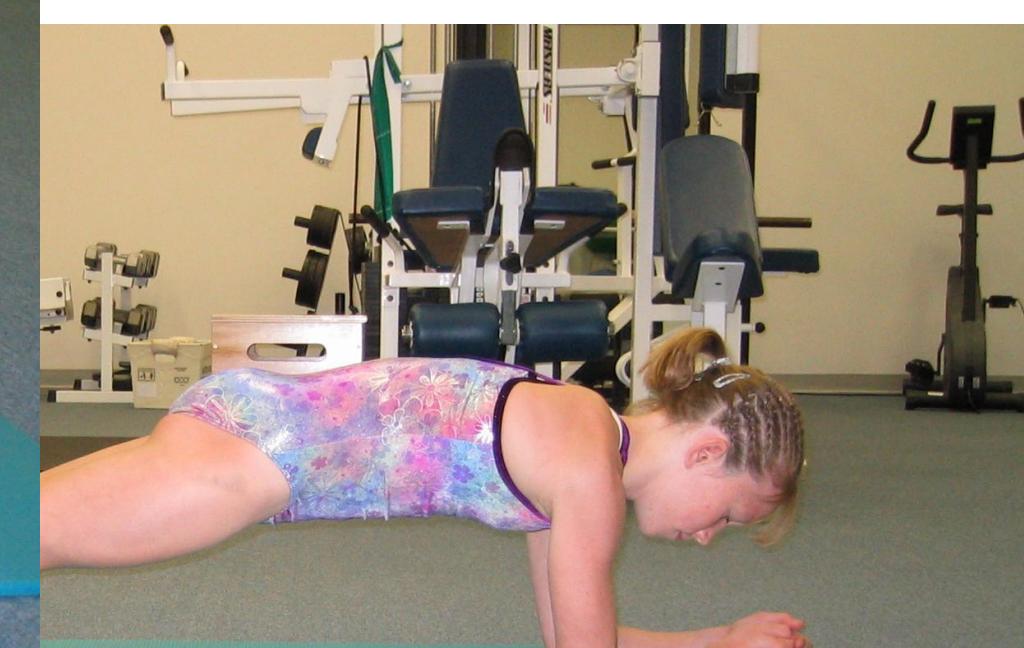
## STEP 4 AND 5

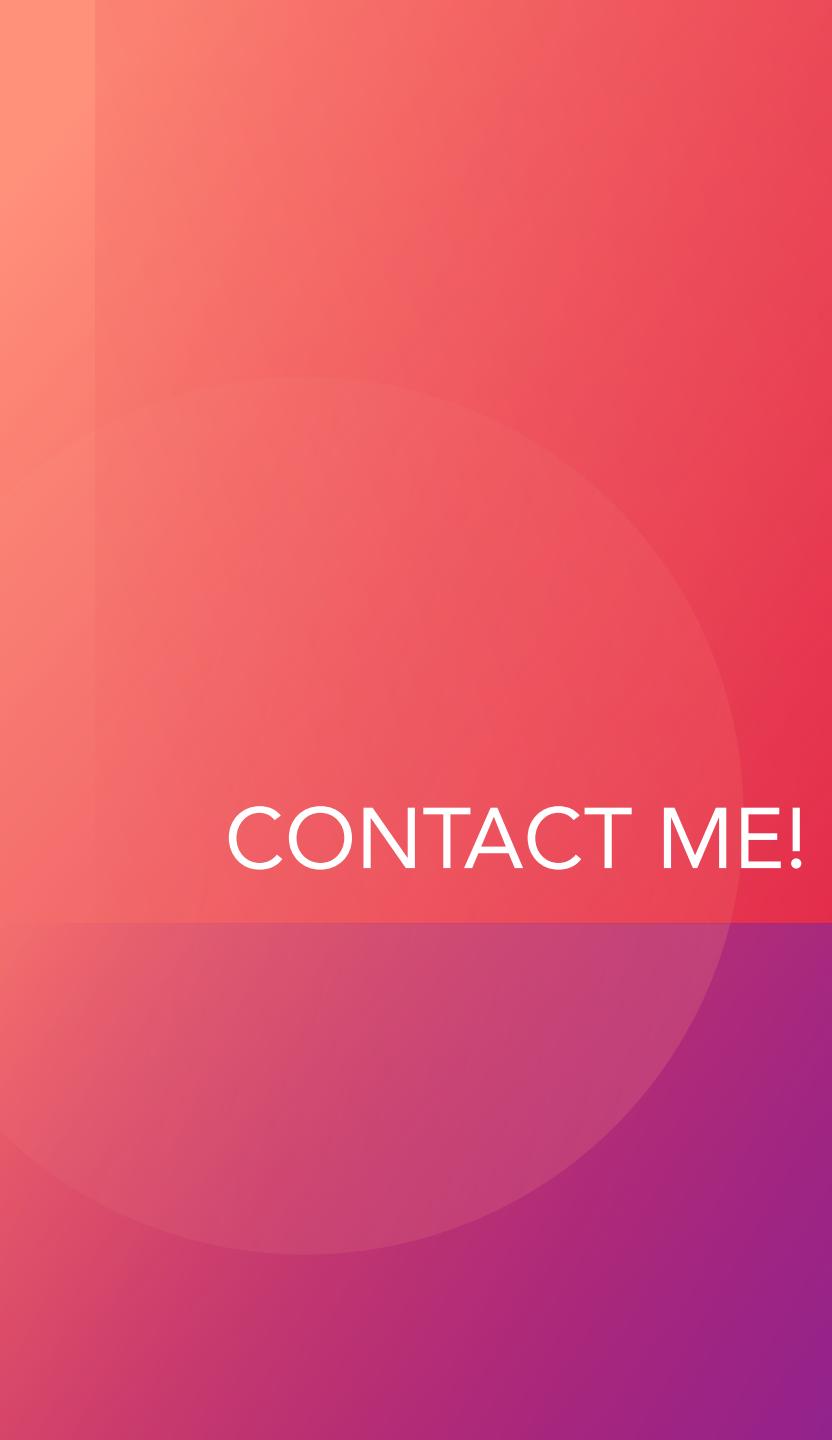
- Both legs in the air
- Recruits similar to uneven bar and pommel horse work
- Leg extension – TKE
- Other leg still (leap training)











CONTACT ME!

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THE COURSE! MedGym Sports Medicine Certification

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