

Core Control & Hip Help Workshop

@ My Body Shop

Presented by:

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ARCO Physical Therapy & Fitness

Section 1: Anatomy

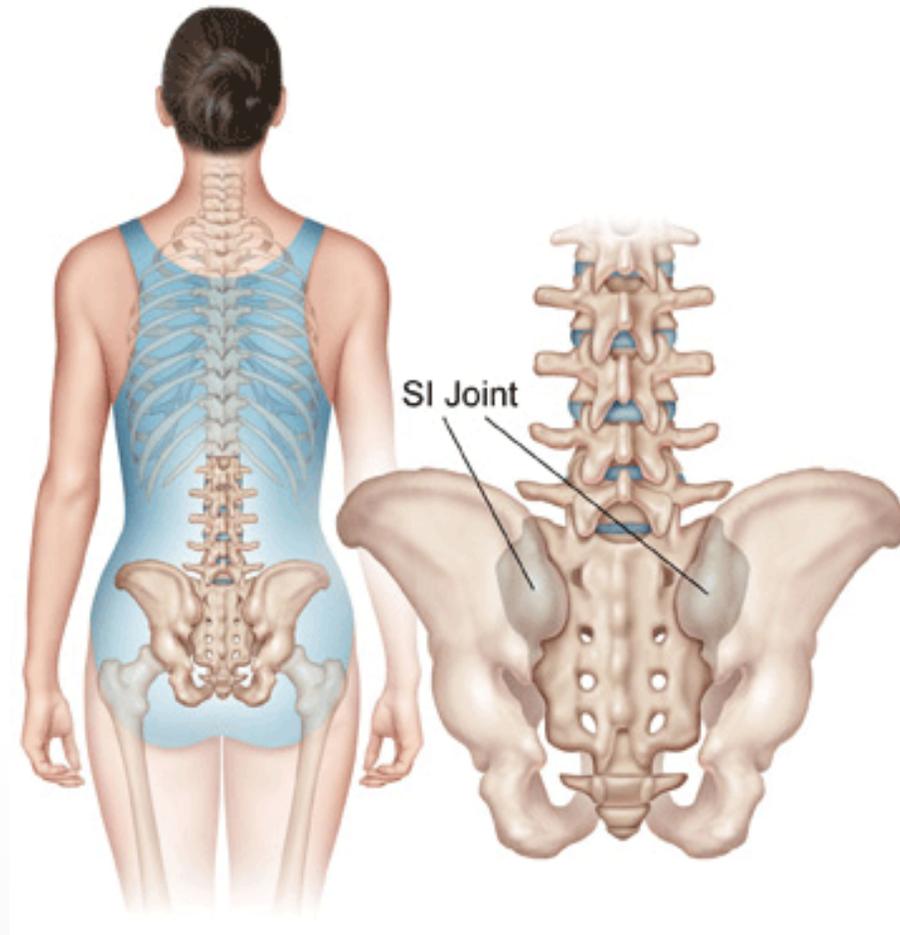
“Know Thyself”

“Never regard study as a duty, but as the enviable opportunity to learn.”

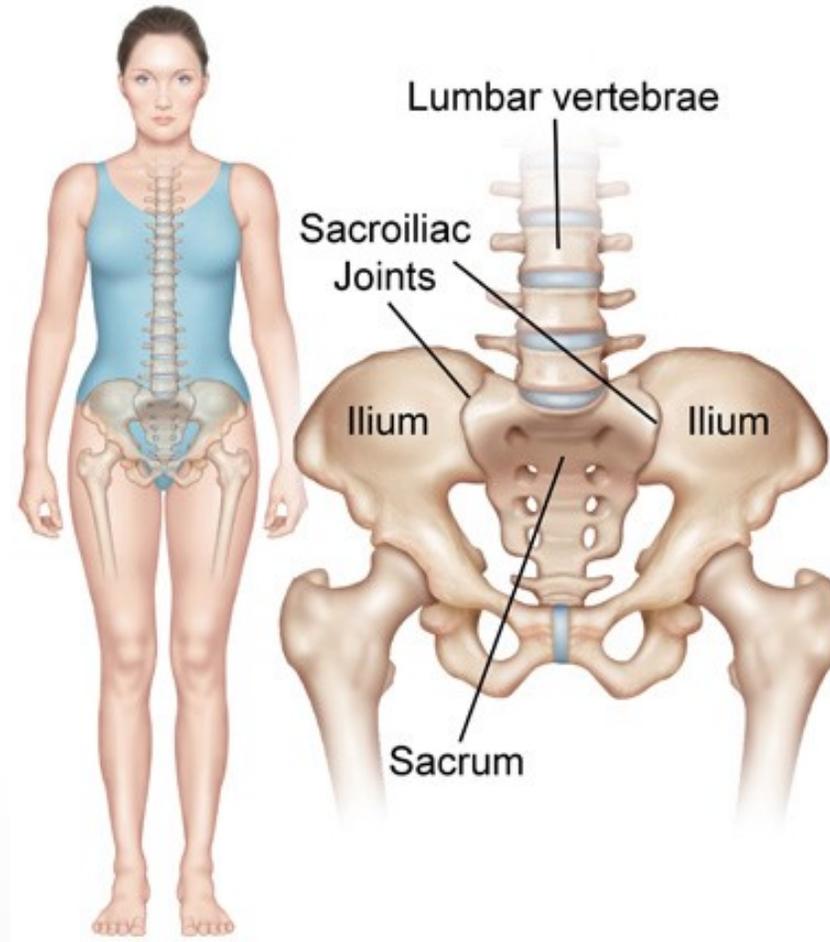
- Understanding basic anatomy allows you to better understand movement
- Bones, joints, fascia, nerves, skin & muscles work TOGETHER to create human motion – there is no such thing as “isolation.”



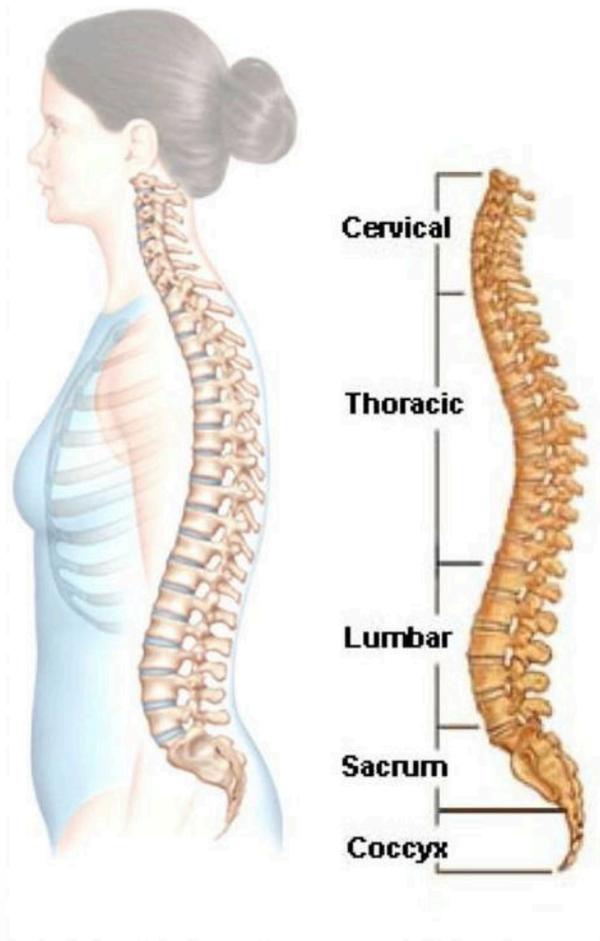
Posterior view of the lumbar spine and pelvis



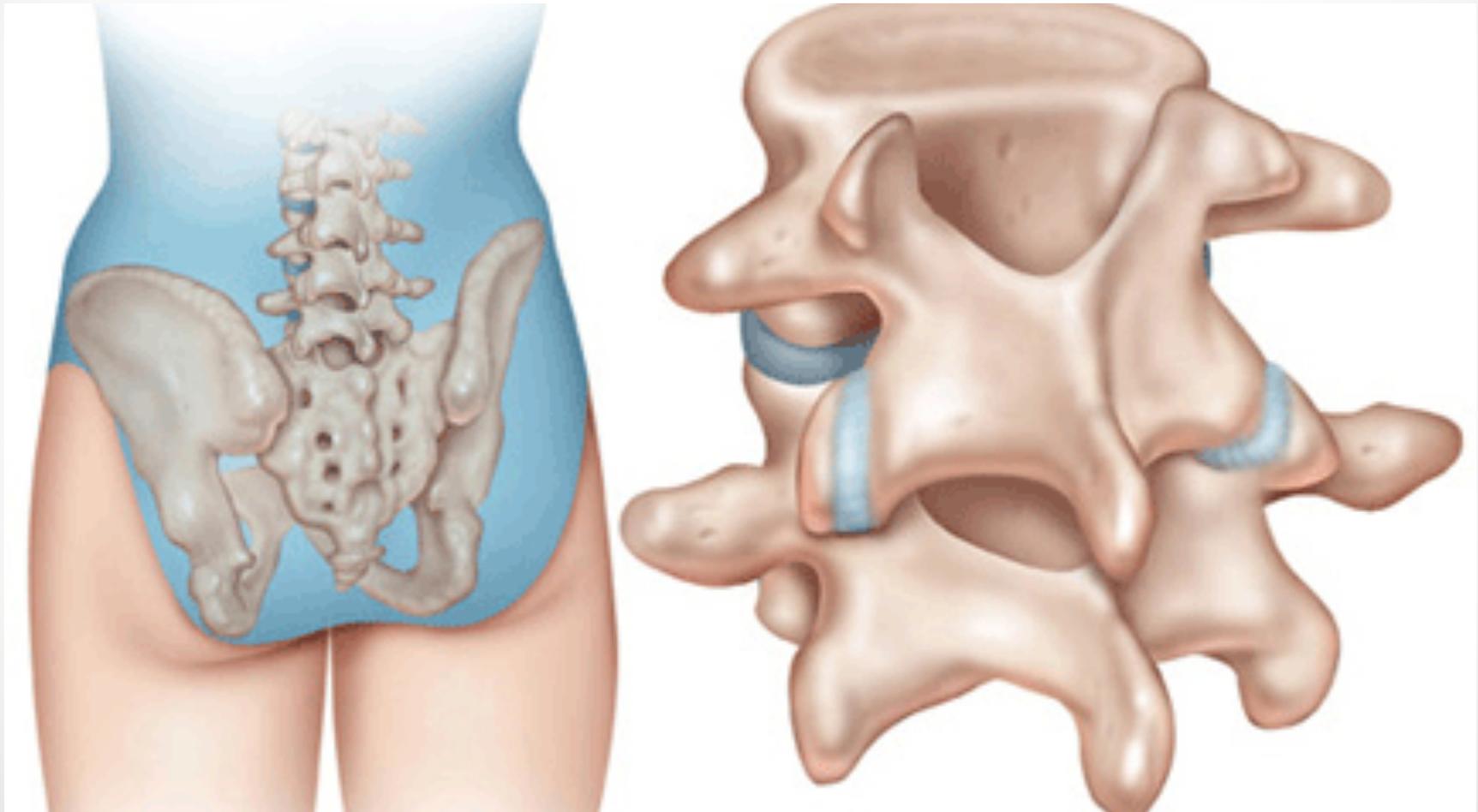
Anterior view of the lumbar spine, pelvis and hips



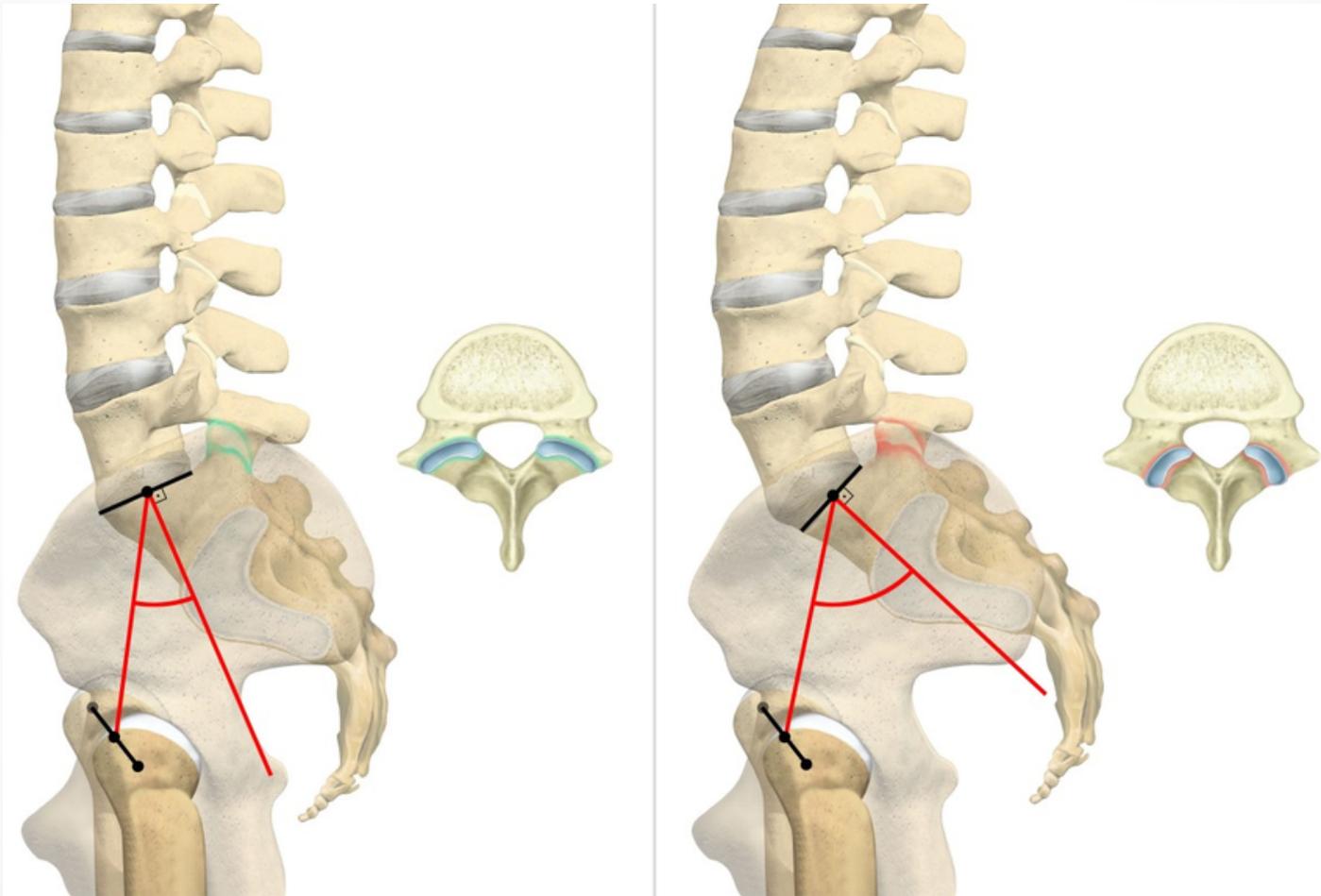
Spinal Curves: 4 sections



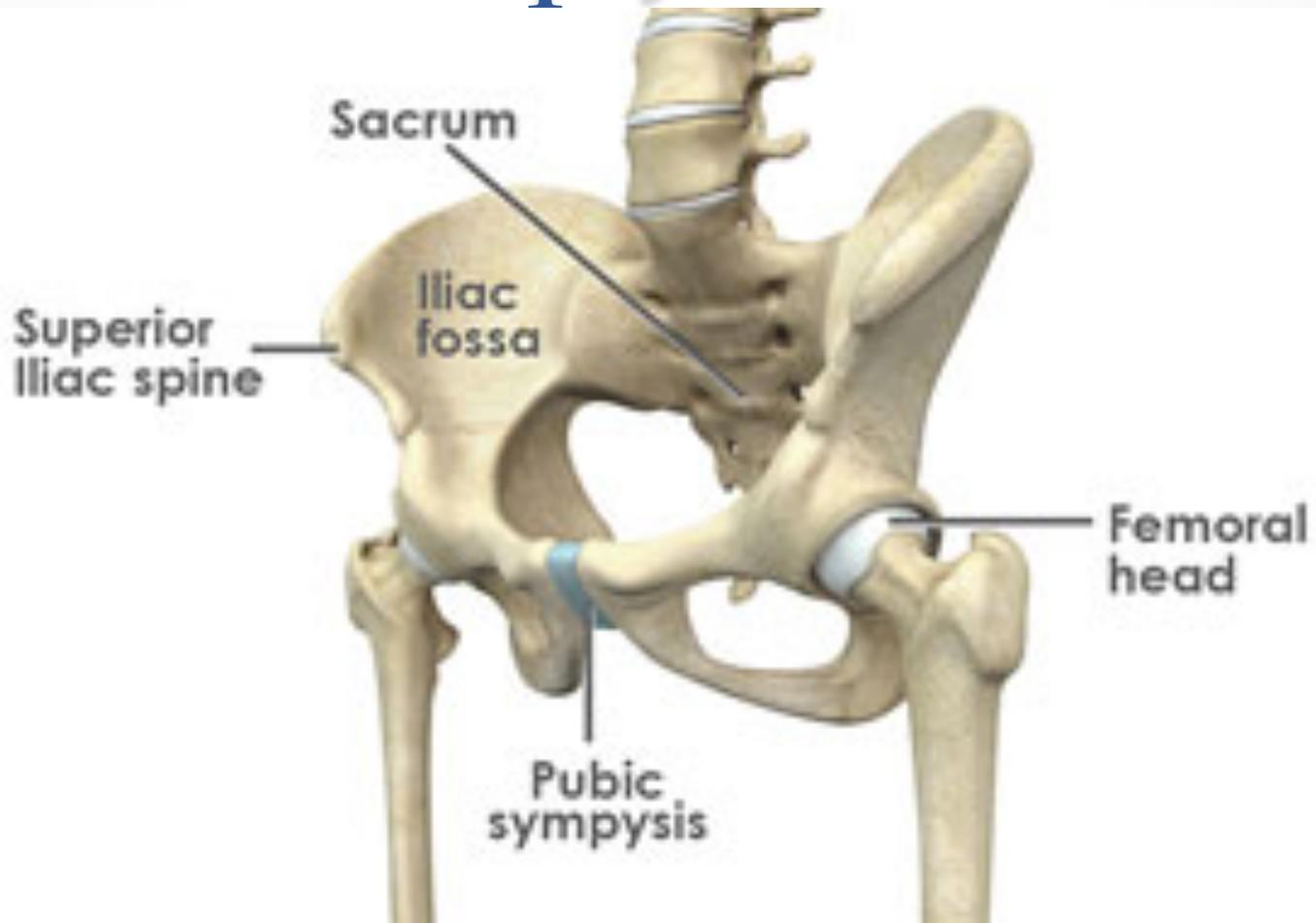
Spinal “Motion Segment”



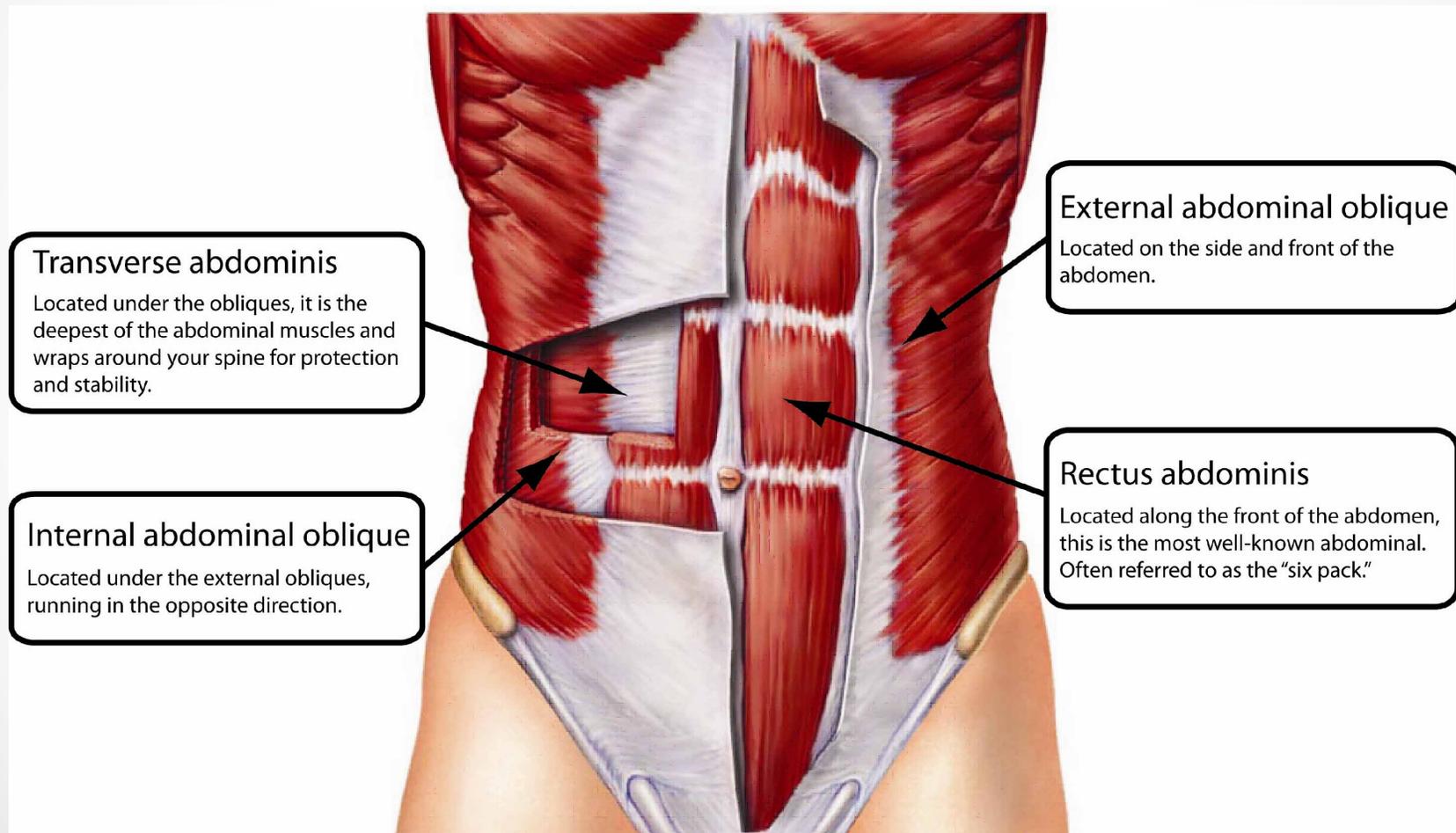
What if your posture includes an “arched back?”



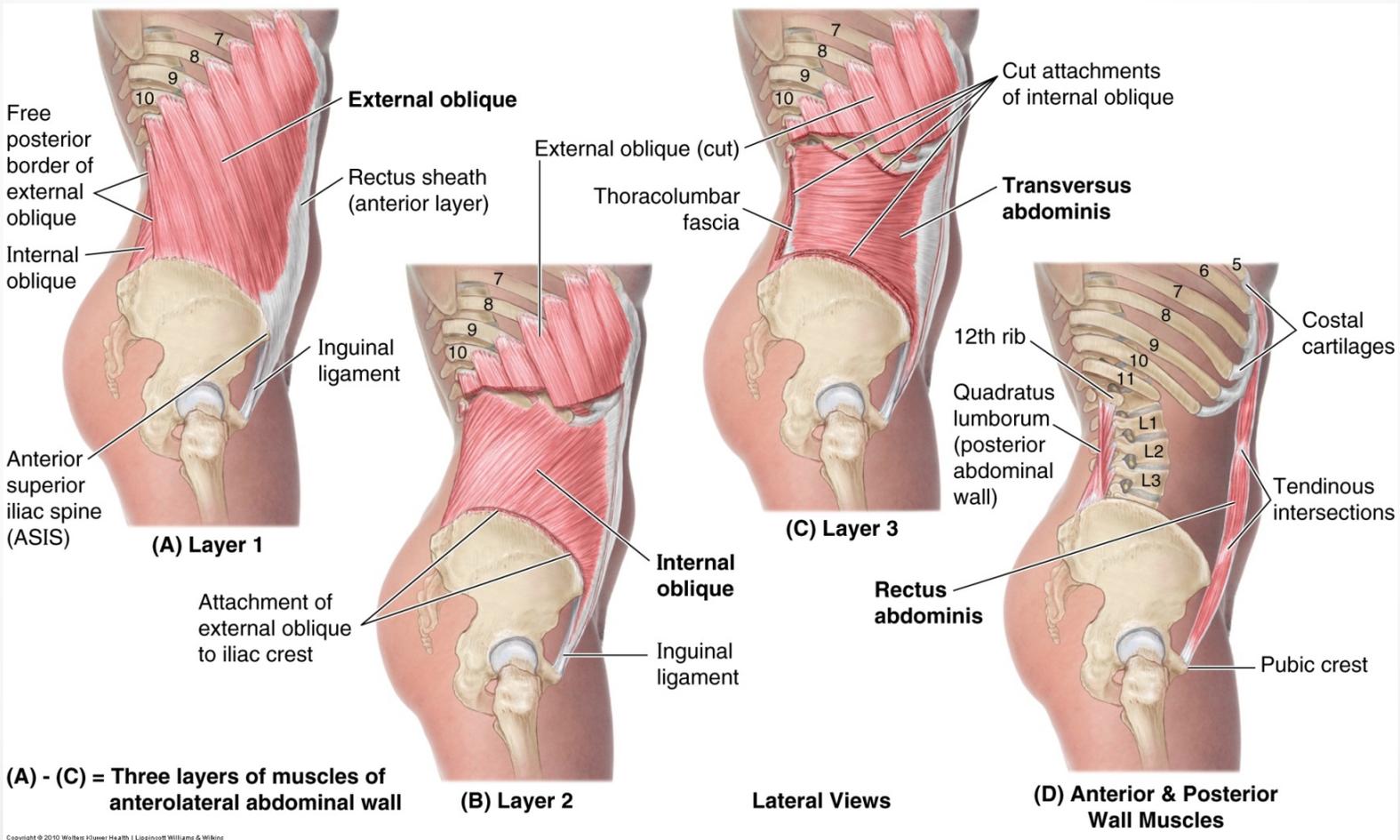
Hip Joint



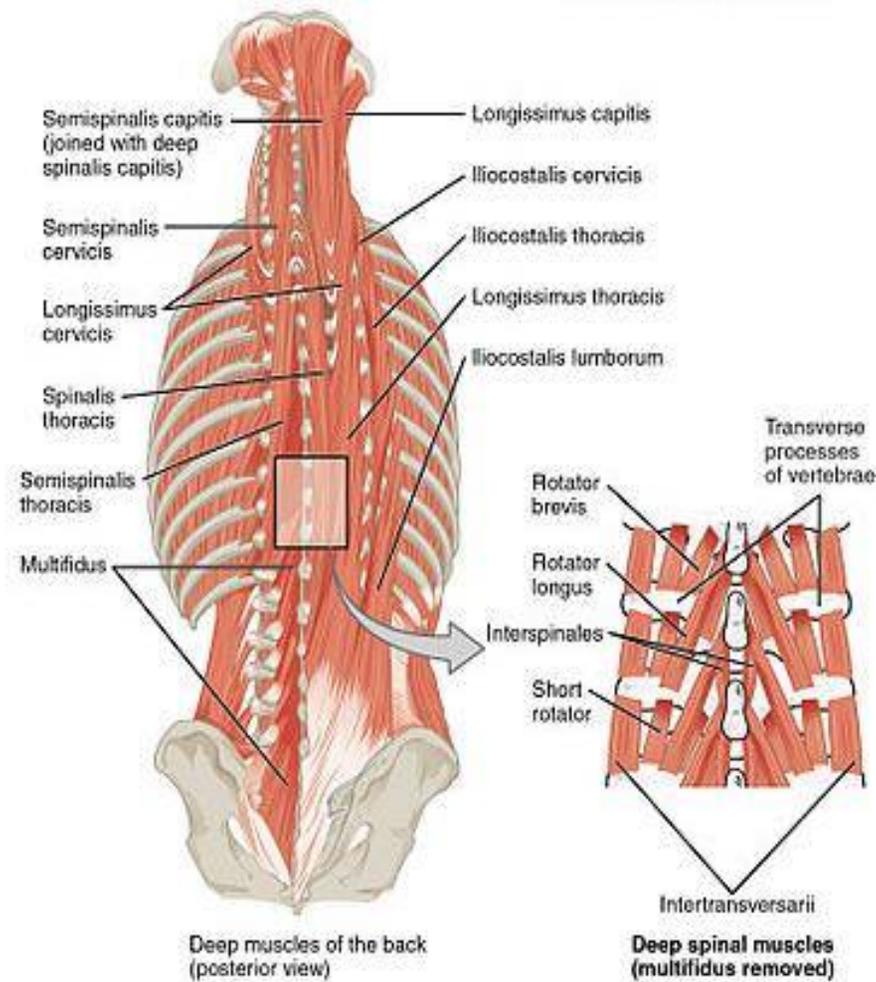
Anterior view of abdominal musculature



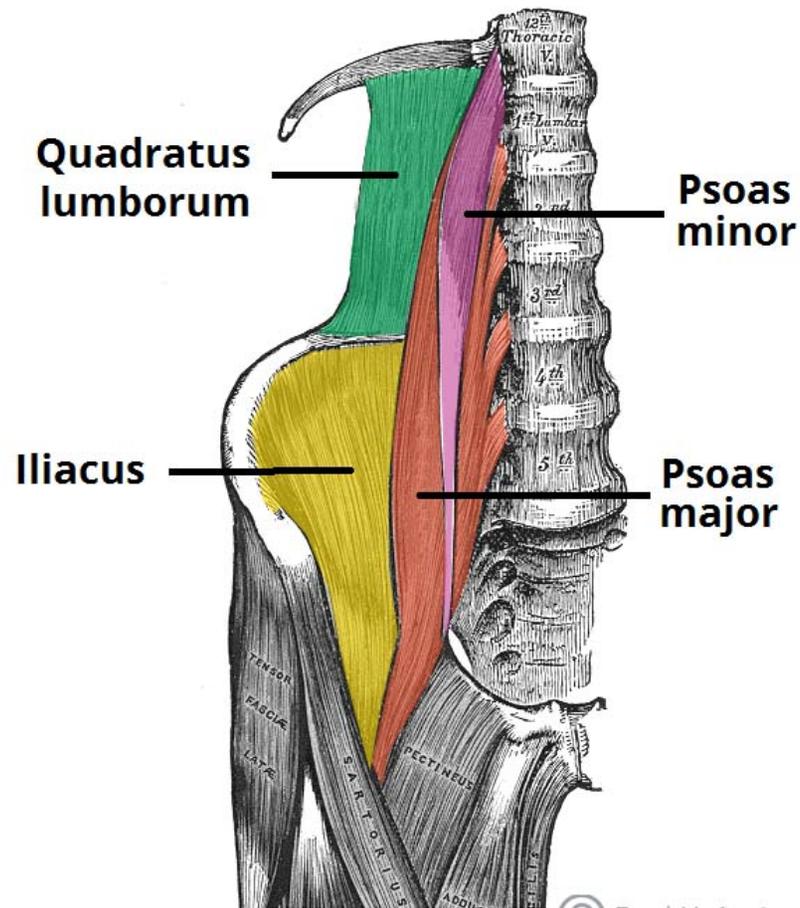
Side view of abdominal musculature



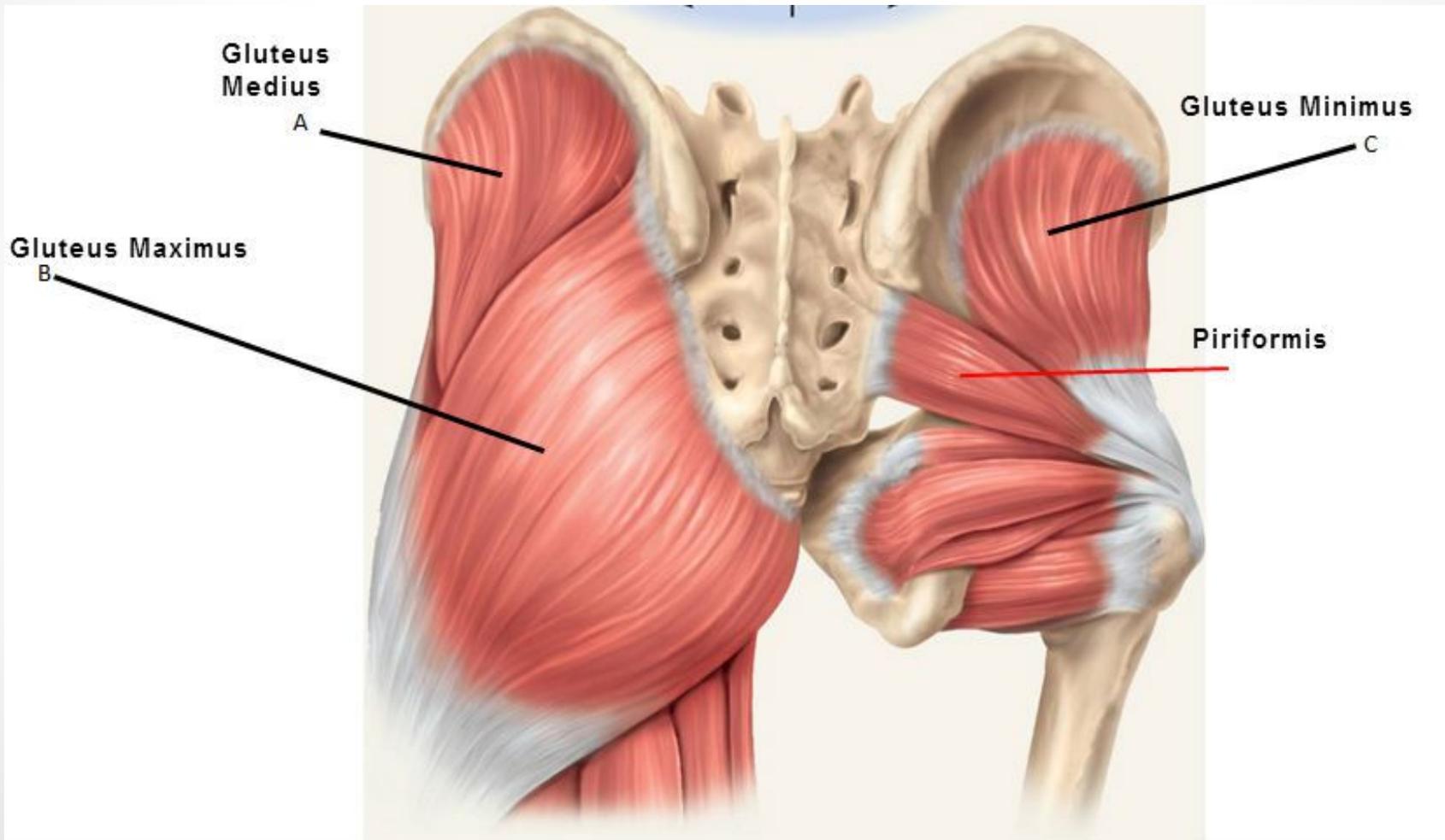
Muscles of the back



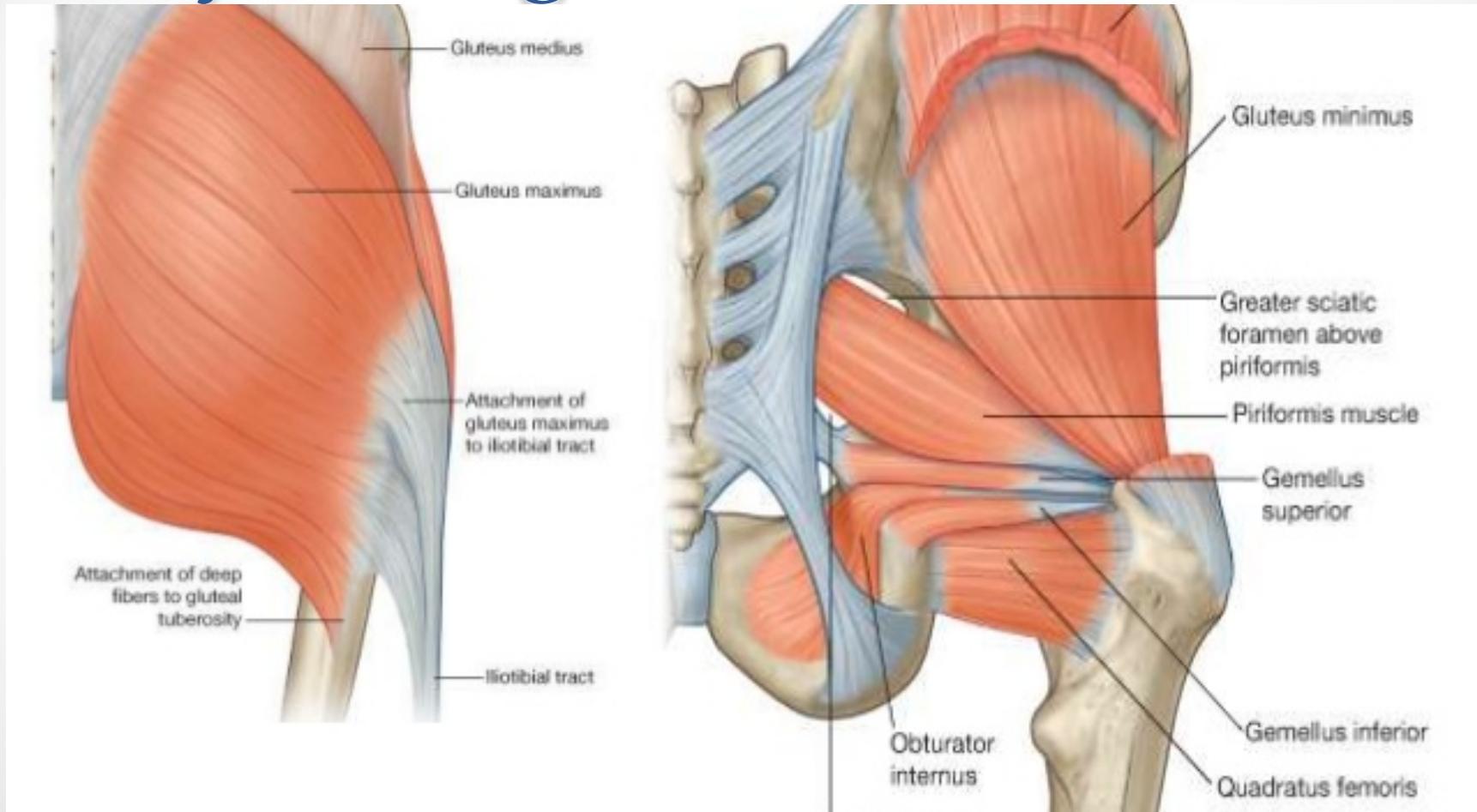
Quadratus lumborum & psoas vs. iliacus



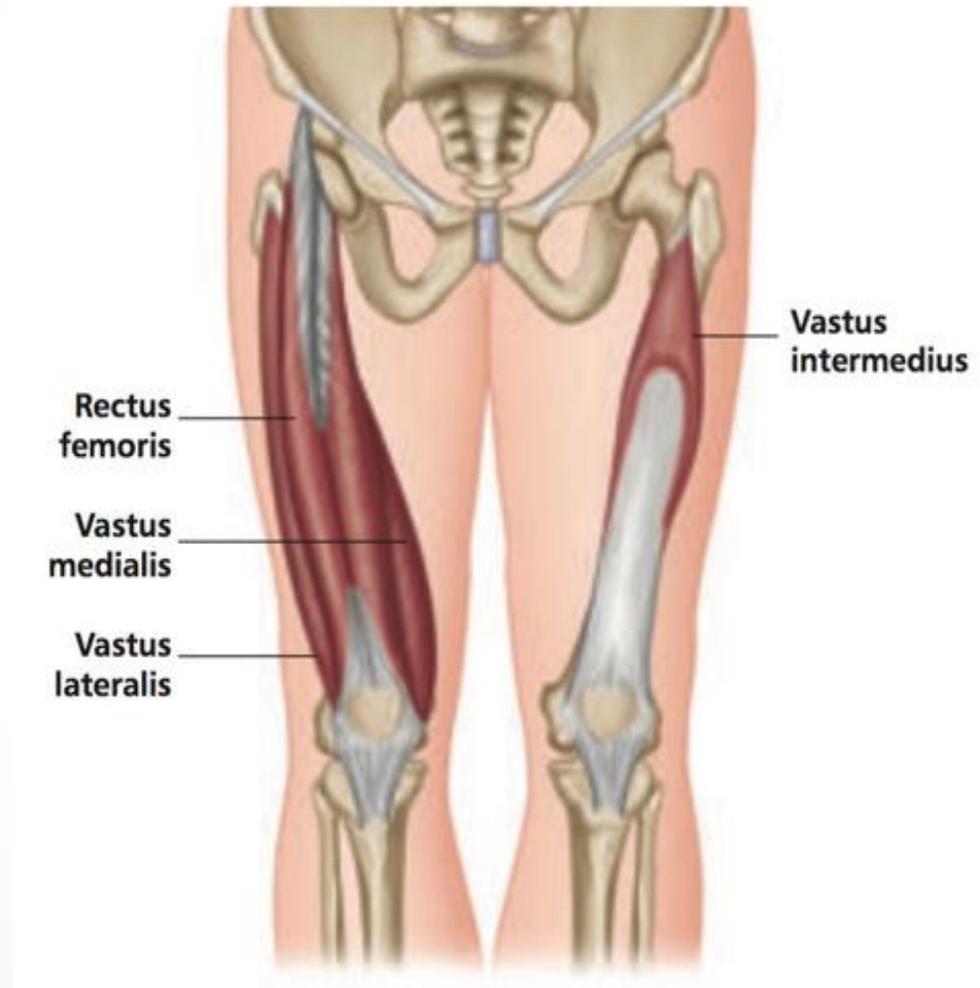
Gluteal musculature



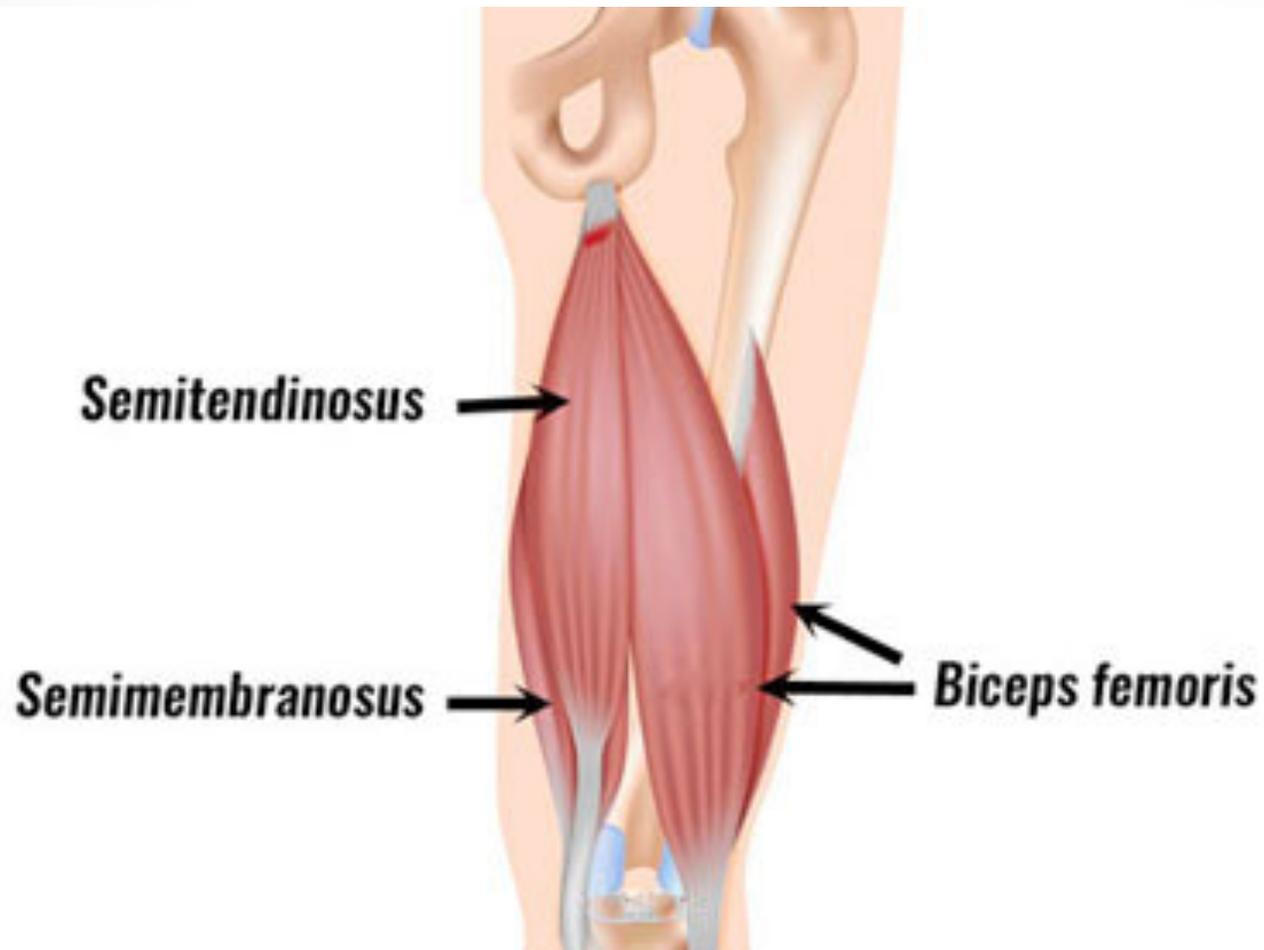
Layers of gluteal musculature



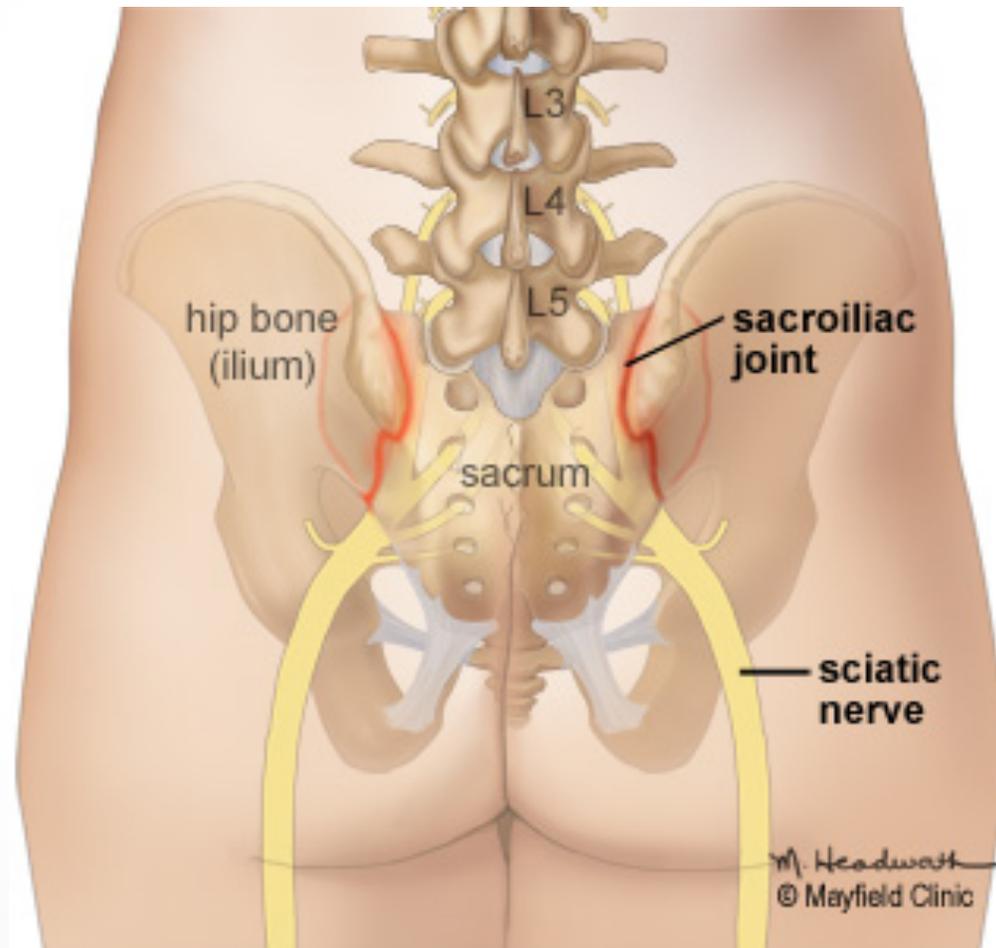
Quadriceps muscles (4)



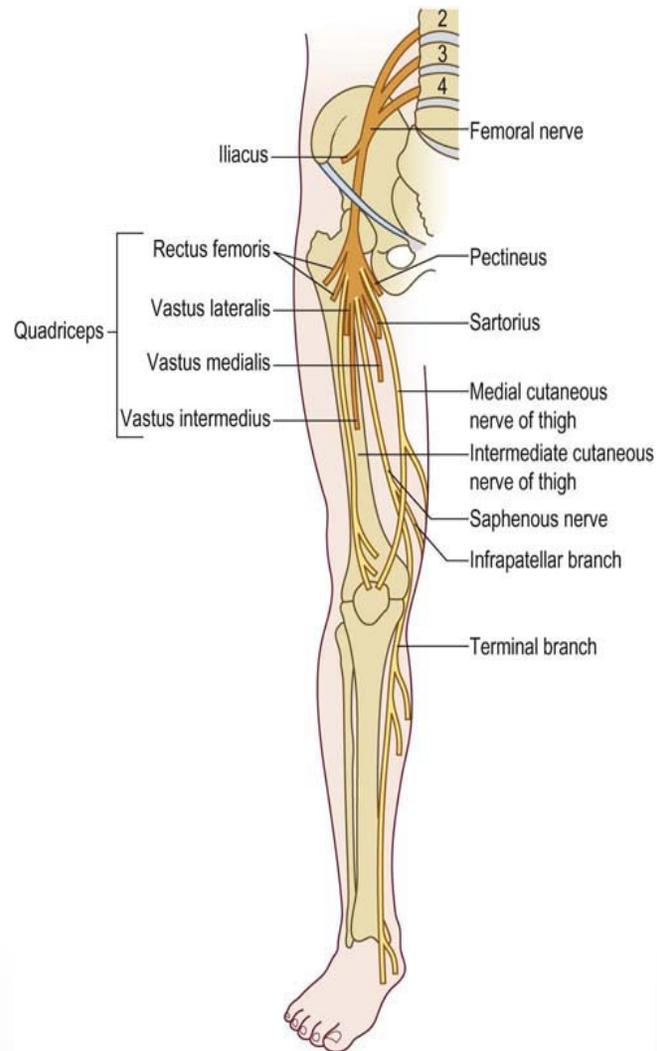
Hamstring muscles (3)



Sciatic nerve (posterior view - muscles removed)



Femoral nerve



Fascia (microscopic view)



Fascia – the “cling wrap” of muscle?



Section 2:

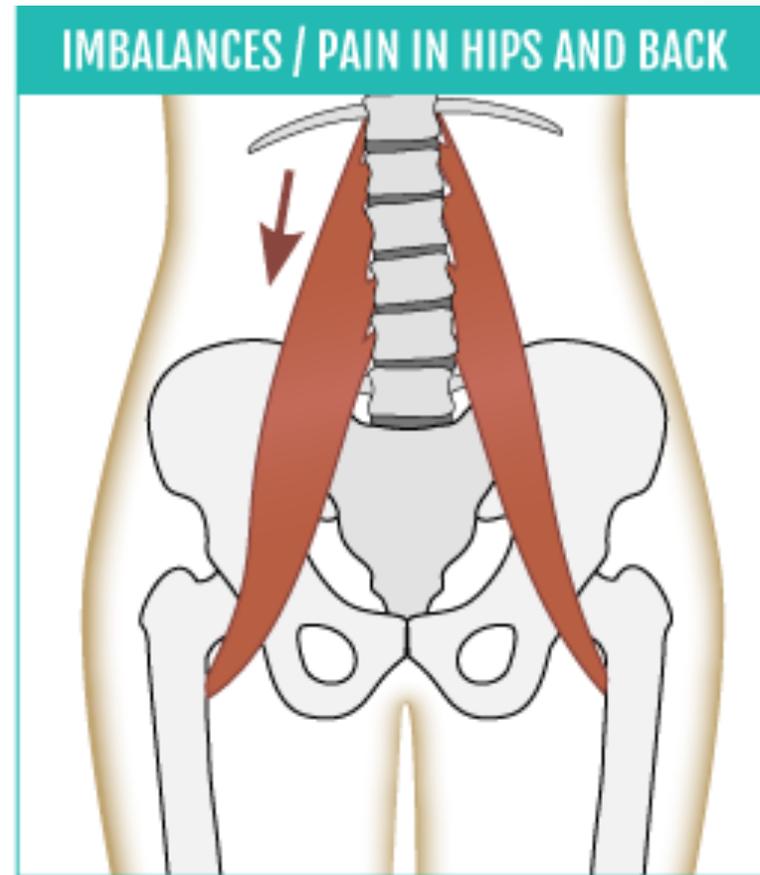
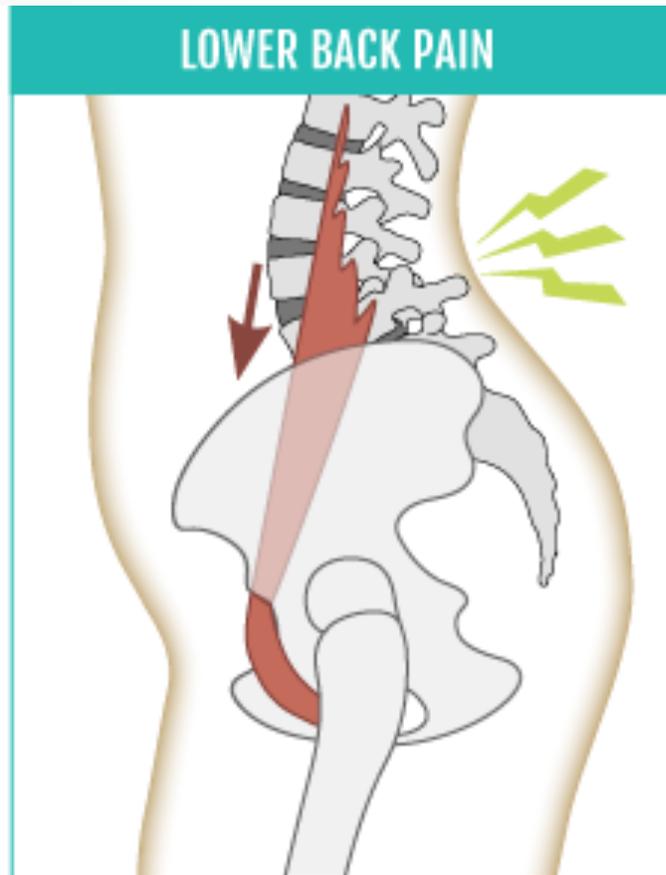
Engaging your core

- **What is the Transverse Abdominus?**
 - Stabilization & support muscle (runs horizontally)
 - What actually helps flatten your core – while still allowing you to breathe
 - Is NOT generally under voluntary control – it's reflexive. Sadly, if you have back pain, it shuts off. Seriously though – it just stops working...
 - Works with the “barrel muscles” to keep your insides in.
- **Cues to engage it (from PT cues to “she said what?!”)**
 - Holding your belly button to your back while saying the alphabet
 - Stepping in to a really, really cold pool...
 - Jumping on a trampoline & trying not to pee...
 - Imagine that you're peeing with the door open and you hear something so you stop in a panic...(Performing a “kegel”)

Lower core vs. Psoas

- **What does the psoas actually do?**
 - *Psoas as a spinal stabilizer & a lumbar spine/hip flexor*
 - Its location makes it well suited to do both (just not well at the same time)
 - Often used in place of the weaker abdominals to stabilize and round the spine
 - This causes problems!
 - Asymmetrical posture
 - back pain
 - loss of lumbar mobility

What if you have a “tight” psoas?



Section 3:

Deviations from “normal”

“Stop comparing yourself to others – you’re supposed to be unique.”

- Deviations aren’t a problem unless they are (“if it’s not broken, don’t fix it)
- Being aware of what your body feels is essential
 - Stop saying “circus/pole hurts” and accepting that as standard!



When it is “a problem”

- **When it aches asymmetrically during or after an activity**
 - AKA: you pole on both sides, so why does only one hurt?
- **When it causes you to change your movement or avoid an activity**
 - AKA: “I don’t --- anymore because my hip doesn’t like it.”
- **When it HURTS!**
 - Seriously though – you’d be surprised how many of my patients simply ignored their body’s simple early warning system.
- **When it can’t be rolled, stretched or strengthened away.**



Self Assessment Tools

- Hamstring extensibility
- Sciatic nerve/fascial glide (look for a difference between the sides)
- Adv. LTR & prone press-up (Lspine mobility test)
- Ability to extend the hip (prayer leg raise)
- Fire hydrant leg raise (without movement of spine or pain)
- Open push-up march (strength in diagonals of motion)
- Partner assessment of standing roll down (for spine mobility)
- Lower core roll up (for strength)



Corrective exercise

- Lower abdominal weakness
 - Supine heel slides
 - Lower abdominal tuck lifts (with/without arms, against wall)
 - plank on foam roll
- Hip rotational weakness
 - 360 clams
 - Fire hydrant series
 - Prone hip fallouts
- Hip extension weakness
 - Bridge with band on foam roll
 - Child's pose hip extension



Corrective Release/Stretches

- Decreased HS mobility
 - Contract/relax HS stretch
 - Sciatic nerve/posterior chain glides
- Decreased psoas mobility/loss of hip extension
 - Kneeling hip flexor release
 - Adductor roller
- Decrease lumbar mobility
 - Wall segmental roll downs
 - Stacked LTR (with breathing)
 - Cobra/Up down dog (active)
 - Scorpion rolls (anterior chain fascial release)

