



# How Stress Impacts Posture and Peak Performance

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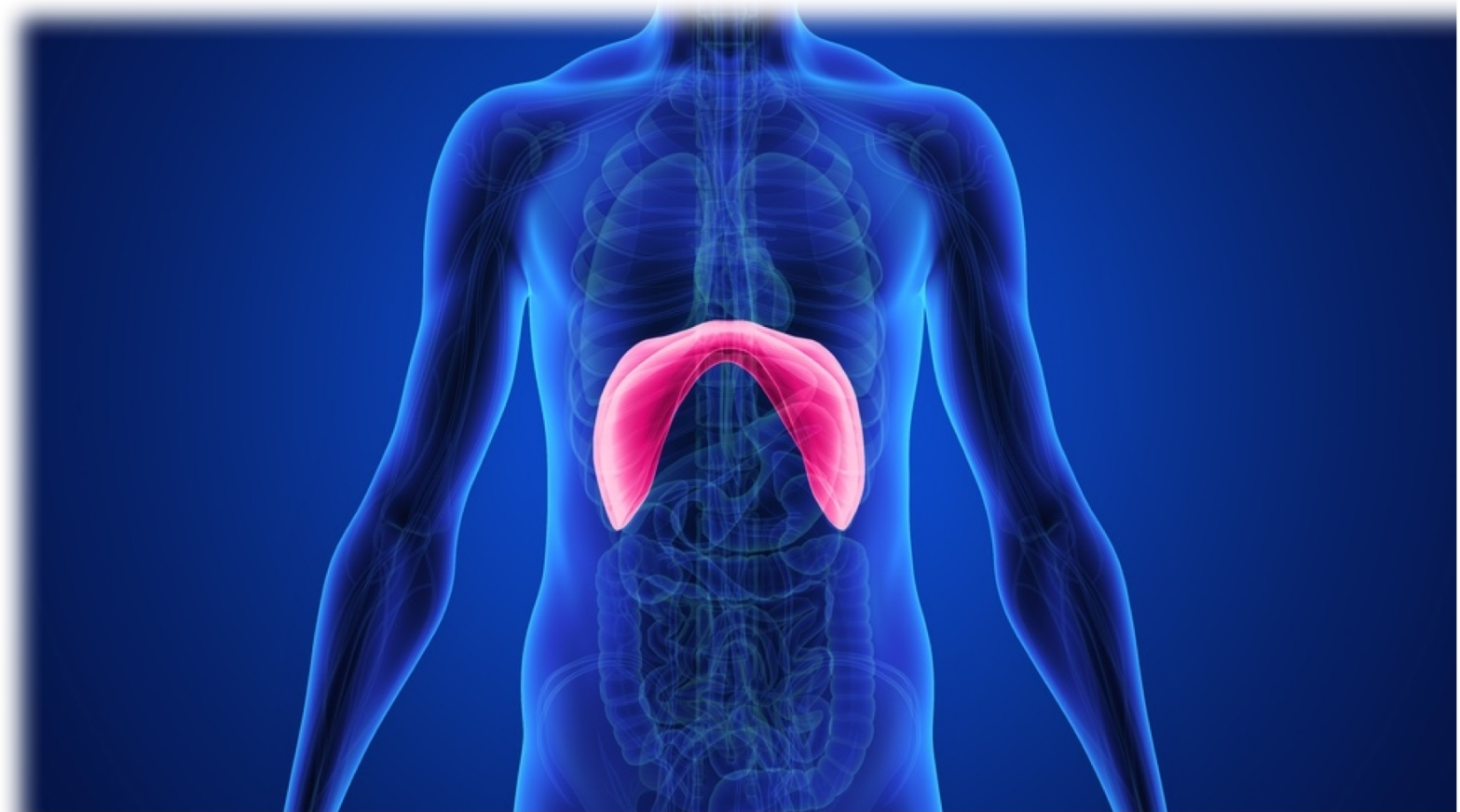
# Common Stressors Affecting Orthopedics

- Psychological stress
- Physical stress
- Visual stress
- Auditory stress
- Dental stress

**MUSCULOSKELTAL INSTABILITY = STRESS**

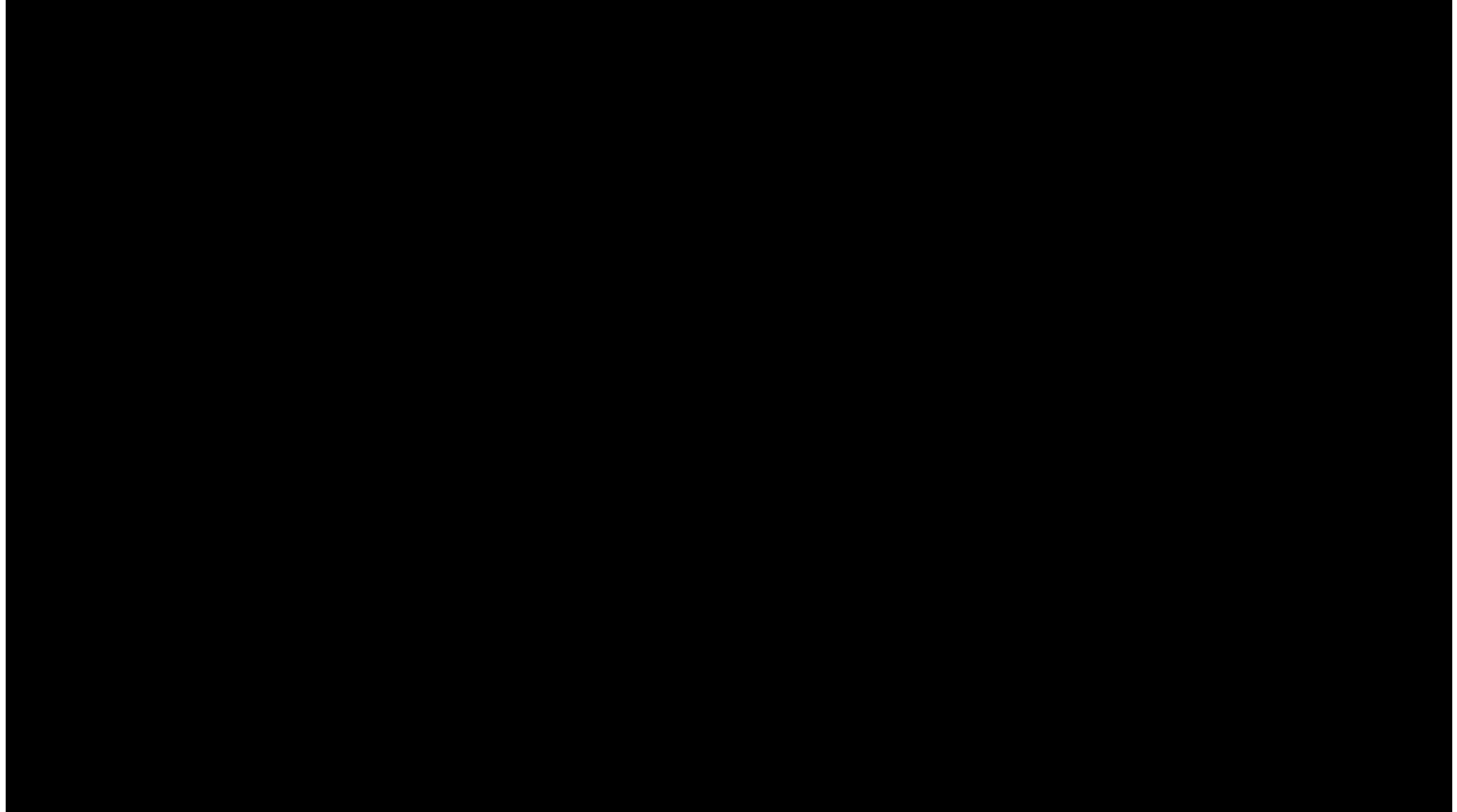


# Breathing: Your Most Important Exercise





# Diaphragm Function



Breathing w/ Diaphragm	Breathing w/ Accessory Muscles
Fills lower lobes of lungs with more blood vessels	Fills upper and middle lobes of lungs with less blood vessels
More rhythmic breathing Activates PNS/"rest and digest" receptors	More random breathing Activates SNS/ "fight or flight" receptors
More relaxed and efficient Decreased respiratory rate and heart rate	More effortful, less efficient Increased respiratory rate and heart rate
Ribs/middle of back/neck remains relaxed	Ribs/middle back becomes rigid; neck overworked
"Pump like" action of diaphragm stimulates digestive, urinary, and sexual organs	Diminished "pump like" activity; organ function diminished

# Let's Breathe!



# How Stress Impacts Posture

Increased stress →

Increased inhalation →

Postural extension

Decreased stress →

Increased exhalation →

Postural flexion

# Postural Extension



# Postural Flexion



# Maximizing Stability For EDS/Dyautonomia

- Activate PNS Postural Muscles:
  - Glutes, hamstrings, diaphragm (core), serratus anterior
- And the SNS Postural Muscles???
  - Calves, quads, hip flexors, global back extensors
  - Activate or inhibit for EDS? It depends!



# Lateral Band Walk w/ Full Spinal Flexion





# Eccentric Step Down w/ Full Spinal Flexion



# Plank w/ Serratus Anterior and Diaphragm



# The Western World Doesn't Know Squat

Benefit of deep squatting and global flexion:

- Improved diaphragmatic strength
- Improved pelvic floor control
- Decreased low back and hip pain
- Improved evacuation





**THANK YOU!**  
**QUESTIONS?**