

# GETTING TO THE CORE OF THINGS

Presented By : Melissa Clarke

MSc, TFL, CEP



# OBJECTIVES

- 1 Understand what the core is and its muscular anatomy
- 2 Understand the controversies of core conditioning research and how to apply the concepts to training programs with clients
- 3 Review various exercises to activate the core using correct movement patterns and cues

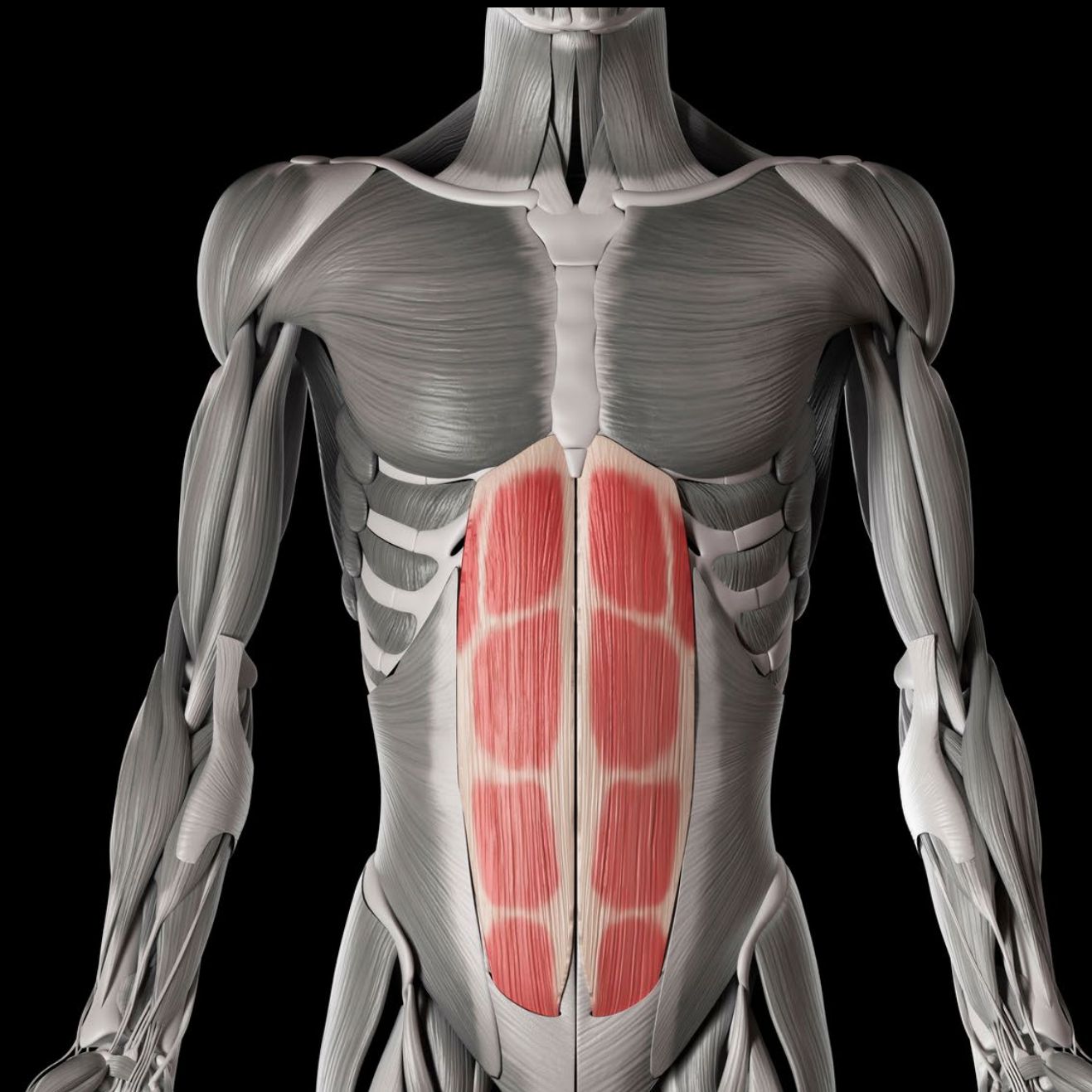
# WHAT IS THE CORE?

There has been disagreement on one clear definition of the core or core stability!

- More than just the abdominals
- Lumbopelvic hip complex (LPHC)

What does the core do?

- Stabilizes and protects the spine
- Movement and transfer of force





# INSIDE OUT: LOOKING AT THE MUSCLES

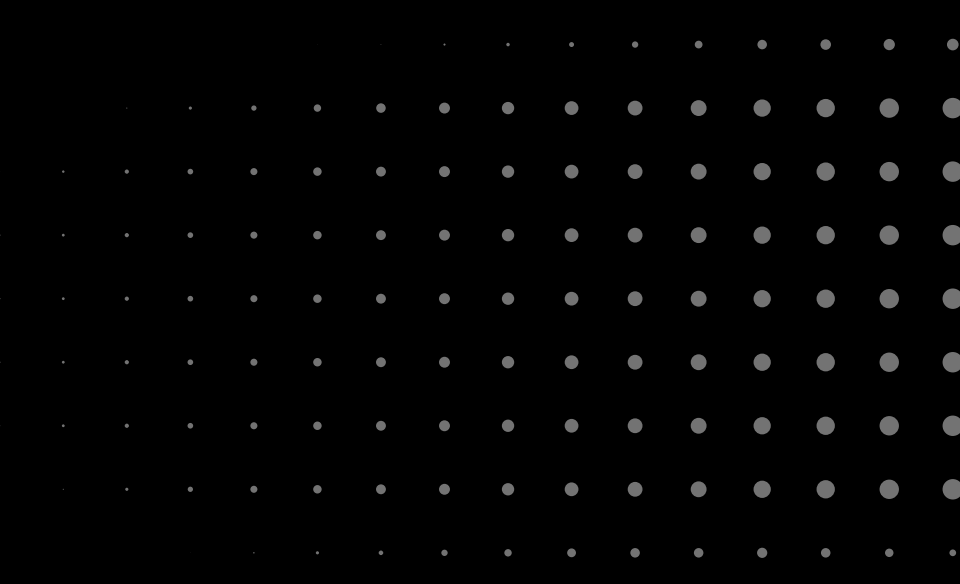
## INNER UNIT (Local Muscles)

Involved in spine (intervertebral) stabilization

- Transverse abdominis and internal oblique
- Multifidus
- Diaphragm
- Pelvic floor muscles

## OUTER UNIT (Global Muscles)

Involved in movement and LPHC stabilization

- Rectus abdominis
  - External obliques
  - Quadratus lumborum
  - Erector spinae
  - Hip complex
  - Latissimus dorsi
- 

# THE GREAT DEBATE

## HOLLOWING

Contracting the TVA and IO to draw the navel toward the spine resulting in a decrease in waist circumference

## BRACING

Simultaneously co-contracting the global muscles with no decrease in waist circumference

“True spine stability is achieved with ‘balanced’ stiffening from the entire musculature, including the rectus abdominis and the abdominal wall; quadratus lumborum; latissimus dorsi; and the back extensors of longissimus, iliocostalis, and multifidus.”

~ Stuart McGill

# MOVEMENTS OF THE SPINE

1. Flexion
2. Extension
3. Lateral flexion
4. Rotation

“The best core training programs require the spine to be held in a neutral position while breathing and while moving the arms and legs in motions that mimic the functional ways the core will be stressed in a given sport or activity.”

~Gray Cook



# STABILITY OF THE SPINE

1. Anti-flexion
2. Anti-extension
3. Anti-lateral flexion
4. Anti-rotation



...like what?



# MCGILL'S BIG 3

1. Modified curl-up
2. Side plank/side bridge
3. Bird dog

...without compensation





# OTHER BIGGIES...

- Planking
- Bridging
- Crawling



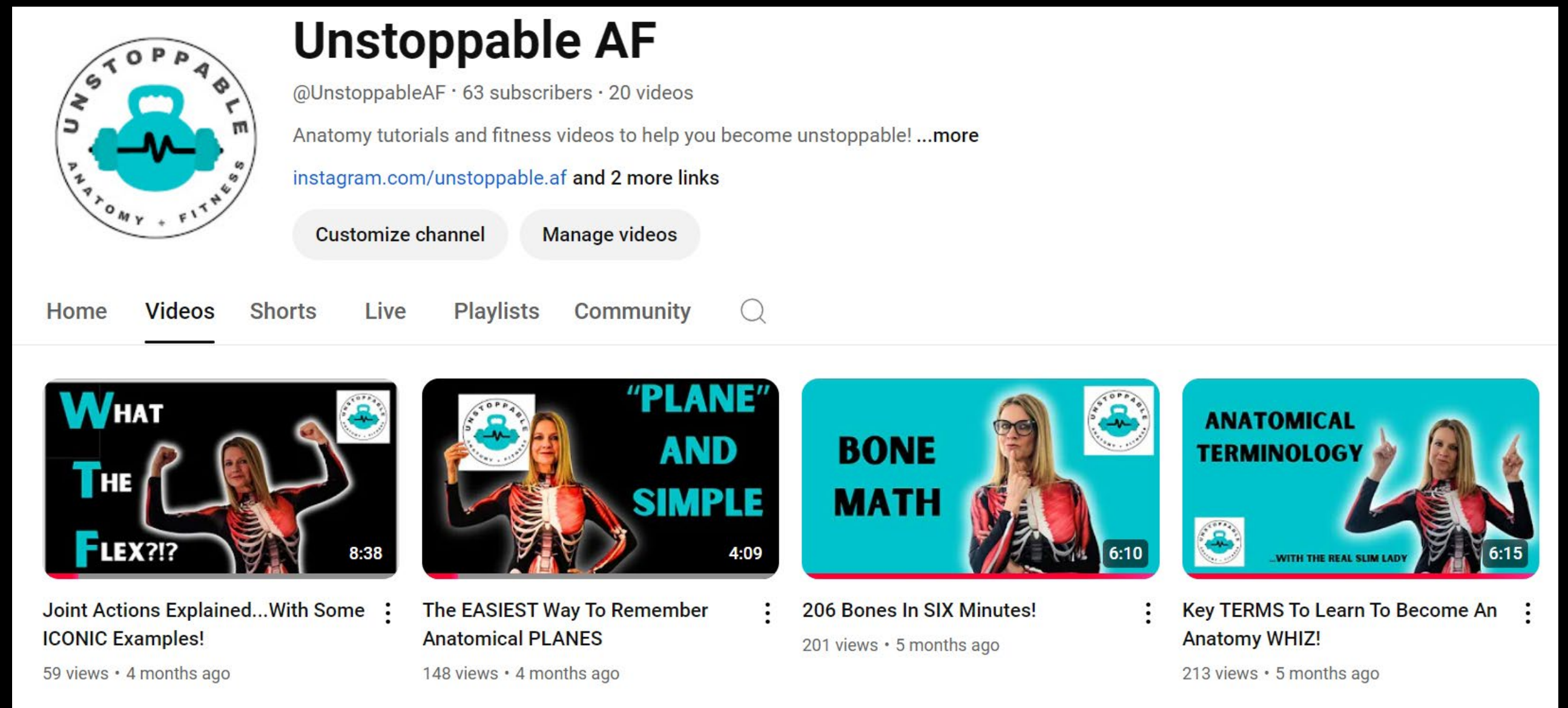
...without compensation

...AND ENDLESS POSSIBILITIES



# THANK YOU 😊

Email: [maclarke@uvic.ca](mailto:maclarke@uvic.ca)  
Youtube: [@unstoppableAF](https://www.youtube.com/@unstoppableAF)



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