

Engage Your Core

Session 5402

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The "core" is all the joints and muscle groups between our neck and knees. But I think we can agree that when many instructors or trainers' cue "engage your core" they mean engage your torso muscles or abdominals. By cuing this way, we are neglecting to cue key positioning for the shoulder girdle and pelvic girdle, key players in the core in addition to our torso muscles. So, are we confusing our students as to what the core really is? This workshop is designed to fine-tune your cuing of the core and fill your toolbox with a load of multiplanar exercises that effectively and specifically target the shoulder girdle, pelvic girdle and everything in between.

Objectives

- Define what constitutes the core in terms of joints and muscles
- Outline why core training is the cornerstone to safe and effective program or class exercise design
- Summarize the planes of motion and what those related exercises are for the core
- Explain precautions in core training as well as regressions and progressions for a variety of exercises other than crunches

Why Core Training is Important?

- Safest position for the body to lift external load most effectively and safely
- Functional
- The girdles anchor the limbs to the body
- Stability through dynamic and static postures
- Misconceptions about what is involved in core training – it's not just Rectus Abdominus and it's not just crunches!

Core Foundation – Set Position or Neutral ‘S’ Curve

- Inward curve at cervical spine, outward curve at thoracic spine, inward curve at lumbar spine, outward curve at sacrum
- Set position for shoulder girdle – shoulder blades retracted and depressed
- Set position for torso – connect the ribs to hips – COUGH
- Set position for the pelvic girdle – no anterior or posterior tilt – all the water in the bucket
- Scapulohumeral rhythm – relationship between the shoulder and shoulder girdle
- Spine/hip rhythm – relationship between the spine, pelvic girdle and hip i.e. When the spine extends, the pelvis anteriorly tilts

The Major ‘Players’ of the Core

- Joints – Shoulder Girdle, Shoulder, Vertebral, Pelvic Girdle and Hip
- Muscles – everything associated with the above joints ...
 - Upper – Trapezius, Rhomboids, Pectoralis Major and Minor, Serratus Anterior, Levator Scapulae, Latissimus Dorsi (Lats), Rotator Cuff (SITS), Deltoids
 - Torso – Erector Spinae, Quadratus Lumborum (QL), Rectus Abdominus, Int/Ext Obliques, Transversus Abdominus (TVA)
 - Lower – Hip Flexors (Iliopsoas, Rectus Femoris, Gracilis, Tensor Fascia Latae (TFL), Sartorius), Hip Extensors (Gluteus Maximus and Medius, Hamstrings – Biceps Femoris, Semitendinosus, Semimembranosus), Hip Abductors and Adductors, Hip Rotators

Therefore, only the arms - biceps (brachialis, brachioradialis, biceps brachii), triceps and the lower limb (anterior tibialis, gastrocnemius and soleus, posterior tibialis etc) are **NOT part of the core

Cautions around Spinal movement



- Loaded or unsupported spinal flexion i.e. Deadlifts and squat pitching
- Segmental rotation
- Excessive Lateral Spinal flexion

** A good first step in rotation training is to choose exercises that resist rotation

Considerations for Class Design

- Mindful class planning – where does life put our bodies outside of the gym?
- Rule of thumb – flexion: extension - 1:2

The Exercises

- 1) Warm up Planar Training Lower Body - 10 reps each (unloaded versus loaded)
 - a. Single leg deadlift to drop lunge - Sagittal
 - b. Side lunge drop reach to outside of foot with lateral flexion - Frontal
 - c. Reverse lunge with rotation – Transverse
 - d. Up dog/down dog
- 2) Overhead squat with band – quick assessment/shoulder packing
- 3) 2 over, 2 back – bar press out
- 4) QL Back Extension to swimmers
- 5) Lateral skater with bar
- 6) Squat with bar vertical– turn 180 degrees
- 7) Side plank – side to side rotation
- 8) Standing bird dog with bar
- 9) Slap shot with bar
- 10) Protraction Supine /Bentover Retraction
- 11) Standing bar OH lateral flexion  Same with lunge
- 12) Figure 8 with bar at lunge
- 13) Hip hike supine or standing
- 14) Side lunge drop, shift and bound
- 15) Butt Blaster with Band
- 16) Plank Row
- 17) Deadbug resist
- 18) Quadruped cross under
- 19) Squat with bar vertical  Make it dynamic
- 20) Off set plank
- 21) Bar shift at top of crunch
- 22) Bar Drop
- 23) Standing Ext/Int Rotation with bar support