Integrated Core Training

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Principles
The Abdominals are…

- Positioned in all 3 planes and control motion of the pelvis and rib cage
- Reactors to motion, gravity, ground reaction forces, momentum

What turns them on?
What turns them off?

Strategies

- An integrated core training program targets mobility and stability in all three planes of movement from the top down and the bottom up
- Use understanding of the principles of movement and abdominal anatomy to:
  - Select exercises that authentically engage the abdominals
  - Teach the body how to subconsciously use the abdominals
  - Create exercise progressions that will improve client outcomes

Movement is 3-Dimensional

What Drives Movement?

- Foot
- Pelvis
- Knee
- Hand
- Head

Selecting appropriate drivers:
Who are you training?
What are their interests?
Why have they come to see you?
Appropriate influence variables.

Starting Foot Positions:
Neutral, Right foot forward, Left Foot Forward, Wide, Narrow, Externally Rotated, Internally Rotated
Teaching Core Stabilization

- Warm up – include stationary exercises and provide corrective feedback
- Frequently visit neutral postural alignment
- Use external props or forces
  - The pool wall
  - Turbulence
  - Buoyancy equipment

Stimulating an Unconscious Abdominal Response

- Using opposing arm and leg movements
- Same plane or multi-planar, unison, alternating or unilateral
- Using equipment to enhance awareness & stimulate response
  - A small ball or buoyant hand buoy or noodle

Movement Options:

- In four working positions
  - Anchored/grounded, rebounding (level I), neutral buoyancy (level II) and suspended (level III)
- Off-axis stability
  - To the side, front or back
- In an unstable environment
  - Single leg support, turbulent water
- Dynamic stability

Exercise Teaching Strategy

- Cue direction of force
- Power phase/recovery
- Assist/resist
- Muscular effort
- Speed
- Force
- Movement pattern
  - Stationary/travel
  - Movement direction

Integrated Core Training Exercise Progressions

- Lunge
  - Stretches the chest and lungs, shoulders and neck, abdominals, psoas
  - Strengthens the UE, LE and trunk
  - Strengthens/stretches the LE
Lateral Lunge

- Stretches the chest and lungs, shoulders and neck, abdominals, psoas
- Strengthens the UE, LE and trunk
- Strengthens/stretches LE

One Leg Balance

- Strengthens LE
- Stretches the groin and inner thighs, chest and shoulders
- Improves balance
- Relieves sciatica/reduces flat feet

One Leg Balance with Hip Hinge

- Strengthens the ankles and legs
- Strengthens the shoulders and muscles of the back
- Targets the abdominals
- Improves balance and posture

Laurie Denomme, B. Kinesiology, FAFS
is the co-founder of Exercise Elements, a company whose mission is to deliver an approach to exercise that concentrates on the body as a whole for better results. She co-authored a book on special populations and is the creator of numerous aquatic exercise education products.

A Fellow of Applied Functional Science™, Nike Golf Performance Specialist and AquaStretch™ instructor, Laurie is dedicated to mentoring and motivating others. She travels internationally to share her unique and personally developed exercise training methods.

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Bibliography available upon request.