

Just More Than Abs: Strengthen Your Core

From armpits to knees, the core is more than just those six pack abs.

June 21, 2012

The "Core" is the Lumbo-Pelvic-Hip Complex--it is made up of approx. 29 muscles that include: deep abdominals, obliques, deep spinal musculature, hip flexor group and the glutes.

Dictionary Definition

In anatomy, the **core** refers, in its most general of definitions, to the body minus the legs and arms.^[1] Functional movements are highly dependent on the core, and lack of core development can result in a predisposition to injury.^[2] The major muscles of the core reside in the area of the belly and the mid and lower back (not the shoulders), and peripherally include the hips, the shoulders and the neck.

Anatomy

Major muscles included are the pelvic floor muscles, transversus abdominis, multifidus, internal and external obliques, rectus abdominis, erector spinae (sacrospinalis) especially the longissimus thoracis, and the diaphragm. Minor core muscles include the latissimus dorsi, gluteus maximus, and trapezius.

--A misconception: Most people think of the core as only the superficial ab muscles..... the one's you can see in the mirror.

The core is where the human body's center of gravity is located and where all movement begins. Proper development of the core musculature will result in more efficient movement patterns and optimal performance. Efficient movement equals less chance of injuries!

When should I train the Core?

It is important to remember that the core musculature is the start of all movement and therefore makes sense that it is developed to its optimal level and should be performed at the beginning of your workout.

--If your core is weak and/or untrained it leads to inefficient movements that could lead to injuries or patterns of injuries.

How should I train the Core?

Core training provides intrinsic stability (think of an internal weight belt) to the Lumbo-Pelvic-Hip-Complex, which allows for optimum efficiency of the rest of the body.

-Core training should emphasize the entire muscle contraction spectrum:

1.) Stabilization--Isometric Contraction(maintain a certain position for a period of time)

Examples:

- Planks
- SB(stability ball) Push-up Bridge/Walkouts
- SB Hip Bridge
- SB Cobra

2.) Force Production--Concentric Contraction(shortening the muscle against resistance)

Flex/Ext/Lateral movements

Examples:

SB Curl-ups

SB Back Ext

Sit-ups

3.) Force Reduction--Eccentric Contraction(elongating the muscle against resistance)

Examples:

Roll-outs

Reverse Sit-ups

SB Jackknife

SB Rev. Curl-ups

4.) Rotational Force--Rotational/Diagonal Patterns

Examples:

MB(medicine ball) Twists

MB Diagonal Chop/Lift

SB Skiers

SB Arm through's

5.) Neuromuscular Stabilization--Balance

Neuromuscular Stabilization enables the body's neuromuscular system to synergistically produce force, reduce force and dynamically stabilize the entire kinetic chain(body) in all 3 planes of motion. Neuromuscular efficiency enables a person to maintain balance during functional movement patterns whether on the field of play or in day to day activities. In addition Neuro. Stab. increases your coordination and decreases the chance of injury. Balance is a component of all movement whether strength, speed, skill or flexibility dominates the movement in question.

Examples:

1 leg squat, touch & reach

1 leg press, toss & catch

Dynamic single squats(3 planes)

6 Easy Exercises to Strengthen Your Core

Tone your core with a 15-minute workout, three or four times a week.

The Routine

Okay, perhaps you're enough of a realist to know that you'll never have a six-pack. But exercising your core is still important: Strong abdominal and back muscles are essential for doing everyday tasks, like lifting a 20-pound toddler and putting away groceries, not to mention preventing an achy back and maintaining good posture at your desk. Break out of (boring) crunch mode and work your middle with this Pilates-inspired routine, created by Kit Rich, a Los Angeles-based Pilates instructor. Complete the workout three to four times a week to make the most of your midsection.

Move 1: Knee Fold Tuck

(A) Sit tall, hands on floor, knees bent, squeezing a playground ball between them. (B) Lift knees so shins are about parallel to the floor; extend arms. Pull knees toward shoulders, keeping upper body still. Bring knees back to starting position. Repeat 15 to 20 times.



Move 2: Climbing Rope

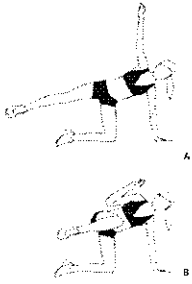
(A) Sit with legs extended, feet turned out in a V position, toes pointed. Contract core muscles and roll spine into a C-curve. (B) Lift arms and move them as if you were climbing a rope. Twist slightly with each reach. Do 20 reaches with each arm.



Move 3: Side Balance Crunch

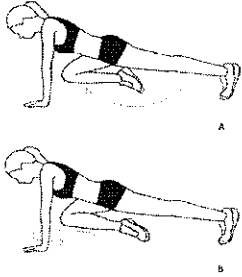
(A) Begin with left knee and left hand on the floor, right arm straight up. Extend right leg so your body forms a straight line. (B) Pull right knee toward torso and right elbow toward knee. Straighten arm and leg. Repeat 10 times, then switch sides.





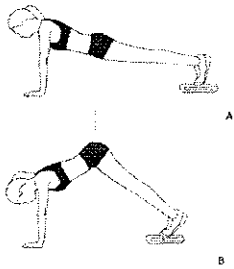
Move 4: Circle Plank

Start in a plank position with abs tight. (A) Pull right knee in and circle it clockwise, then (B) counterclockwise. Keep the rest of your body stationary. Repeat five times, then switch legs.



Move 5: Sliding Pike

(A) Begin in a plank on an uncarpeted floor, hands under shoulders and a towel under feet. (B) With legs straight, raise hips and draw legs toward hands into a pike position—your feet should slide easily. Hold for one count, then return to start. Repeat 10 times.



Move 6: Oblique Reach

Sit with knees bent and feet on floor. (A) Straighten right leg. Roll spine into a C-curve. Place left hand behind head and extend right arm. (B) Twist body to the left, roll back a bit more (and hold for one count), then come up. Do five reps, then switch sides.

