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Core Stability vs Abdominal Training

Clearing Up A Big Fat Fitness Misunderstanding

Most of us have heard about “core training”. We have read about “core stability” in Shape or Mens Fitness magazines and are aware of its importance. Many gym goers want to develop the abdominal muscles “six pack” or “abs”. Most operate under the mistaken belief that abdominal training and core training are one and the same.



The “abs” are the sometimes visible muscles we see in the mirror that make up the “six pack”. They consist of the rectus abdominus in the front and the obliques on the sides. Variations of the “crunch” or “sit up” are exercises utilized to “isolate the abdominal muscles”. These exercise movements are so popular that special exercise equipment has been developed to allow performance of the crunch/sit up motion against resistance in seated or standing positions. While the sit up and crunch will strengthen the “ab muscles”, they do nothing to improve core stability, and are very likely to cause pain and postural problems.

Your “core muscles” are made up of a coordinated team of muscles that connect the shoulders to the pelvis. They function as a group to prevent and/or reduce movement in the lumbar spine, pelvis, and shoulders. Unlike abdominal muscle exercises that involve a significant amount of spinal flexion and rotation, core stability training involves maintaining a static hold against resistance. When you push the lawn mower, lift your grandchild, or carry luggage, the muscles around your spine and pelvis contract and hold an isometric tension for the entire time that

you perform the activity. Core training involves teaching these muscles to function more efficiently, so you can move better during every day activities.

The crunch/sit up motion involved in “ab training” facilitates greater spinal flexion. This forward bent posture is often the position you already spend too much time in during driving, desk, and computer work. If you look at the bent over (kyphotic) spinal postures of elderly individuals, you should further question the need to work on more spinal flexion during your fitness program. Many individuals have unknowingly overused the crunch exercise and have shortened the rectus abdominus and oblique muscles. A shortening of these muscles promotes a forward head, rounded shoulder posture. This posture inhibits free overhead movement of the arms, and rotation of the neck. Among Physical Therapists who treat patients with orthopedic problems, the “*crunched spine*” is the name given to patients that have over trained on flexion biased exercises.

The advice from spine researcher, Dr. Stuart McGill, is to limit spinal flexion in our exercise programs and concentrate heavily on core stability training. A recent book, New Rules of Lifting for Abs by Lou Schuler and Alwyn Cosgrove goes into detail on this topic. I have taken hundreds of physical therapy and fitness clients off of traditional crunches/sit ups and introduced proper core stability training. They often comment on the resolution of pain in multiple areas of their body and improvement in functional strength. Even the military no longer uses sit ups and crunches in their PE training. Change your fitness program, and take the Core Challenge on the next page.

Michael S. O'Hara, P.T., O.C.S., C.S.C.S.

Core Challenge

Train Stronger, Smarter, And Pain Free With A Six Week Challenge

First, drop all of the sit ups, crunches, leg lifts—anything that repeatedly flexes your spine into a forward bent position. No ab ripper, rocket, coaster, or doer devices. You cannot improve the health of the spine or the quality of movement if you are performing activities that create problems.

Next, start training on the core stability exercises below. You will need a physioball and set of JC Bands available from performbetter.com. Start with the easy versions, and gradually progress to the more challenging drills as you get stronger. The program consists of six exercise sets, and should take you no more than ten minutes to complete. Perform the program three times a week for six weeks.

Hovers—Front—Right—Left

Front: Lay face down with the elbows under the shoulders. Pull the shoulder blades down the back and keep the neck long. Lift up your hips, and depending on your strength level, rise up on either your knees or toes. Keep the knees together and the spine in neutral. Brace the abdominal muscles, and maintain a straight body position through the shoulders, hips, knees, and ankles. Hold for twenty seconds. Progress the exercise by holding the Front Hover for longer periods of time. Your goal is a solid sixty second hold on the toes. Once you can do a sixty second hold, add alternate leg or arm raises.

Side: Lay on the right side with the right elbow under the shoulder. Pull the right shoulder blade down the back, and keep the neck long. Lift up your hips, and depending on your strength level, brace up on either your knees or the side of the right foot. Keep the knees together, and the spine in neutral. Brace the abdominal muscles, and try to maintain a straight body position. Hold for twenty seconds. Progress the exercise by holding the Side Hover for longer periods of time. A good goal is a forty second hold with legs extended. Once you can do a forty second hold, try placing the feet on a step or bench. Perform on both sides—it is not uncommon for one side to be more difficult. Start with the weaker side first.



Tall Kneeling Isometric Holds



Attach a resistance tube at waist height and set up at 90 degrees to the tubing's pull. (JC Bands conveniently attach in a door frame.) Kneel on a padded surface with the knee set hip distance apart. The tubing should be stretched so a challenging, but not overwhelming, pull is produced. Grasp the handle of the tubing, and extend the arm out in front of the chest. Brace the abdominals and tighten the gluteals while you hold a solid position for twenty seconds. Your goal is a

thirty second hold on each side. Progress the exercise by moving the tubing handle in and out during the thirty second hold. You can also perform this exercise with a plate loaded cable column.

Forward Ball Roll Out—Wheel Roll Out



Kneel on a padded surface. The hips are bent to 45 degrees, and the spine is held in neutral position. Place the wrist on the front part of the ball. Take a deep breath and

draw your navel to your spine. Initiate a forward roll of the ball by extending at the hips and shoulders simultaneously. Stop just short of the point where you begin to have difficulty holding good spinal alignment. Hold this position for 3 seconds before returning to the start position. Rest for three seconds between repetitions. Perform ten repetitions and work up to twenty. Progress the exercise by switching from the ball to a more challenging Ab Wheel.

Back And Ready For Bach



Marie made a New Year's commitment to get back in shape. Her job as a music teacher kept her seated at the piano

for most of the day. In 2010, she had gained some weight and during a holiday visit to her daughter's home in Chicago, she was disturbed to find that she was short winded and tired after walking in the city. Marie bought a series of fitness videos that promised quick results. She got to work on the exercises, but after two weeks, she began having pain in her lower back and right leg.

Marie was referred for physical therapy by her family physician. She reported her pain was worse with sitting and that she had to stand while teaching piano. She did not have pain with performing her fitness program, and she was pleased with her weight loss. On evaluation, Marie had a very slumped sitting posture. She had weakness in her right leg, and limited movement in her lumbar spine. Marie brought in her fitness video, and we counted over one hundred and twenty crunch type flexion repetitions performed during each session.

Marie's physical therapy consisted of manual therapy, and a program of exercise to improve lumbar extension motion and correct her posture. She continued with her fitness program, but stopped all of the crunch and sit up exercises. After six days, the pain in her right leg and lower back resolved and she was able to begin core stability training. Three months later, Marie remained pain free. She joined Fenton Fitness, and has been able to progress in her core stability training program.

Krav Maga Coming To Fenton Fitness



Krav Maga is a self defense system developed and utilized by the Israeli military. There are no rules in Krav Maga as it is a defensive fighting technique. It is designed to keep the user safe, and incapacitate the opponent by any means necessary. No special uniform is needed and the training is designed around real world situations. Instructor Mike Ligenza will be leading demonstration sessions this month with classes starting in July. Those interested should attend the demonstration class and speak with Mike.

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Hours
Mon-Thur: 5:30am-10pm
Friday: 5:30am-9:00pm
Saturday 8am-5pm
Sunday 8am-2pm

Get Down To Get Up

The Turkish Get Up

I started training with weights when I was fourteen years old. I had some great coaches who taught me how to do the big important movements; squats, cleans, pull ups, lunges, and presses. I also tried and discarded a lot of exercises that were worthless. Looking back, the one exercise I wished I had learned about much earlier in my life is the Turkish Get Up (TGU).

Why the Get Up?

The Turkish Get Up is generally performed with a Kettlebell, and we can thank Pavel Tsatsouline and the resurgent interest in Kettlebell training for bringing this valuable movement back into popularity. The Turkish Get Up is a whole body exercise with multiple benefits for the average guy or gal looking to stay fit and active.

1. Improved flexibility
2. Full body strength.
3. Functional core training.
4. Total body coordination
5. Shoulder stability.
6. Metabolism booster: More muscle and less fat.

As a physical therapist that treats individuals with movement limitations every day, the reason I like the TGU is that it makes you better at getting up off the floor and maintaining symmetry. Transferring from the floor to standing is a primal movement pattern we master as a toddler and often lose as we become deconditioned. Injury prevention is the most important aspect of any life long exercise program. The TGU is an asymmetrical movement pattern that quickly reveals one sided deficits in stability and mobility. Training away these unilateral deficits is the key to injury prevention

How the Get Up?

The exercise activities that produce the greatest rewards are the ones that take the most time to master. You can learn a barbell curl in five seconds, but

front squats and hang cleans can take many months to perform with confidence. Developing proficiency with the Turkish Get Up will require some patience and diligence, but for the time spent, the pay off is huge. My advice is to start slow and work on the mobility and coordination demands of the Turkish Get Up first and then slowly add resistance.

I will not attempt instruction on the Turkish Get Up in this short article, but I will offer some suggestions on how you can learn this exercise. At Fenton Fitness, we are fortunate to have a world class kettlebell instructor in Ken Blackburn. The best way to learn the TGU is to schedule an hour of personal training time with Ken. The time spent with Ken will shorten your TGU learning curve substantially. The instructional videos by Steve Cotter on YouTube are well done, but lack the hands on instruction from a trainer. Physical therapist, Gray Cook and Kettlebell trainer, Pavel Tsatsouline both have produced excellent DVDs with detailed instruction on the TGU.

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