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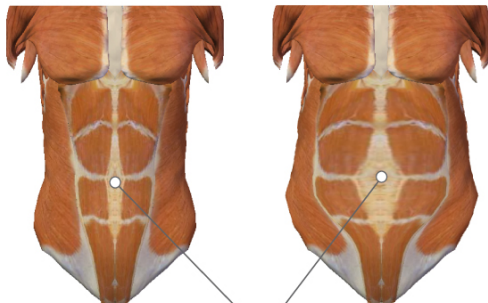
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What Is Happening To My Belly?

The Ins And Outs Of Diastasis Recti

One of the more common abdominal wall injuries is a diastasis recti. This injury occurs when the rectus abdominus--six pack muscle—pulls apart at its mid line seam. The right and left sides of the muscle separate and you are left with a well defined gap



Separation of the Rectus Abdominis
as the abdomen expands

down the middle of your belly. The length of the muscle separation can be short or t r a v e l nearly the e n t i r e length of the abdo- m e n . Separation width can vary from as little as two centimeters to over six centimeters. A prominent bulging may become evident when executing a sit up motion or with exertion during lift/carry activity.

About 30% of all pregnant women develop a diastasis recti. The force of the uterus pushing against the abdominal wall and the influence of hormones that soften connective tissues creates the separation. While the injury can occur any time during the second half of the pregnancy, the woman is generally unaware of the problem until after pregnancy.

Another group commonly diagnosed with diastasis recti are overweight men. Large amounts of visceral fat, the kind that is under the abdominal muscles and surrounds the internal organs, pushes out against the rectus abdominus muscle. Participate in strenuous activity or some poorly advised abdomi-

nal training and you create the perfect environment to create a separation. In many men, the gap in the abdominal wall is very large, and a pronounced bulging frequently occurs at the site of the separation.

While the injury itself is usually pain free, a diastasis recti reduces the integrity and functional strength of the abdominal wall. It can cause problems with pelvic stability and is associated with increased incidence of lower back pain. In most women, the separation closes up in six months. Unfortunately, you are more likely to have the problem again in subsequent pregnancies. For men, the condition is much less likely to improve unless the diameter of the abdomen is reduced so that pressure on the rectus abdominus is decreased.

Individuals with a diastasis recti should avoid many of the commonly performed “crunch” and “sit up” type exercises as they can make the injury worse and less likely to heal. Post-partum females can benefit from a program of training drills that focus on controlling the deep abdominal muscles. On the next page are instructions on basic diastasis recti rehabilitation exercises. Overweight individuals need to get their body weight down to normal levels and then retrain the abdominal muscles.

Some larger separations will require surgical correction and must be evaluated by an experienced surgeon. The surgery is generally performed after the woman is done having children or the man has reduced the visceral fat levels. Recovery from the surgery takes some time, but it is generally very successful.

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

Do's And Don'ts Of Diastasis Recti

Diastasis Recti Don'ts

Avoid any exercise activity that causes the mid line separation to bulge out. No sit ups, crunches, and leg lifts. Stay away from exercises that stretch you backward over a physioball or Bosu. Individuals with large rectus abdominus separations should be careful with exercises performed in the four point or quadriped position. Avoid the "down dog" position in yoga. Strenuous lift and carries often recreate the diastasis recti bulge and should be avoided.

Diastasis Recti Do's

New moms should try to "log roll" out of bed instead of pulling straight up as in a sit up motion. If you cough, place your arms across the front of the abdomen to brace the muscles and reduce stress on the area of separation. Some women with large separations can benefit from the temporary use of an elastic abdominal binder as long as they also work on rehabilitating the abdominal muscles with exercise.

Train your transverse abdominus muscle (TVA). The TVA is located under the rectus abdominus and runs the opposite direction of the rectus abdominus muscle. The TVA is the body's "internal girdle" and when contracted, it pulls the belly inward. A properly trained TVA turns the torso into a tight and tall cylinder that can accept force and maintain a stable spine and pelvis. Below are two activities you can work on to train the TVA so that your abdominal wall functions better during all daily tasks.

Transverse Abdominus Draw In

Lay on your back with the feet flat on the floor, knees bent, and a hollow in the small of the back. Hold a basketball or cushion of similar size between the knees. Place your fingertips so they rest just inside the front of your pelvis. During this exercise, none of your joints move. Exhale, and gently draw the belly button in so you feel tension in the muscles under your fingertips. Do not tilt the pelvis or allow the spine to move. Hold the contraction for five seconds and then release. Rest for five to ten seconds and then repeat. Perform ten repetitions. As you get better at the exercise, try holding the transverse abdominus contraction for up to ten seconds.



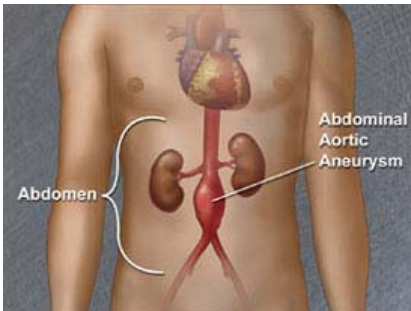
Kneeling Draw In

This exercise is best performed in front of a mirror. You will need a four or five pound medicine ball. Hold the medicine ball and kneel on a mat. Reach directly overhead with the ball. Draw in the belly and visualize trying to get taller as you push the medicine ball toward the ceiling. Hold for five seconds, lower, rest for at least five seconds and repeat. Perform ten repetitions. As you get better at the exercise, try holding the contraction for up to ten seconds.



Location, Location, Location

The Real Estate Of Bodyfat



Some recent research has revealed that men who present with diastasis recti are more likely to also have an aortic aneurysm. An aortic aneurysm is a bulging of the major artery that extends

from the heart down the body to the legs. While a diastasis recti is an inconvenience, an aortic aneurysm can be deadly. A simple, pain free, and relatively inexpensive ultrasound imaging test can be performed to assess the integrity of the aorta.

An even simpler test of health is the circumferential measurement of waist to hip ratio. In several studies, this test has been shown to be a powerful predictor for heart attacks and stroke. It is more accurate than blood pressure, lipid profile, body mass in-

dexing and percent of lean tissue measurements. To determine your ratio, measure your waist at the thickest area, usually around the navel, with the abdomen relaxed. Then measure the hips at the largest area, and then divide your waist size by your hip size. In men, a ratio greater than 1.0, and in women, a ratio of 0.80 or greater places you at risk for heart attack and stroke. The larger the ratio, the greater the statistical risk.

Visceral fat can go largely unnoticed because it is not as visible as subcutaneous fat. In fact, the only effective way researchers can closely measure visceral fat is with a magnetic resonance imaging test. Visceral fat cells are more metabolically active than subcutaneous fat. They act like hormone factories and send messages to internal organs influencing sensitivity to insulin, blood lipid levels, and sodium absorption. Excessive visceral fat is correlated with glucose intolerance, diabetes, hypertension, and accelerated development of coronary artery disease.

TRX Suspension Training Classes

Make Your Body The Machine

Suspension training is a revolutionary method of leveraged bodyweight exercises. Suspension training is performed with an adjustable TRX (total body resistance exercise) strap system developed by a former Navy Seal to help his fellow soldiers stay fit. It permits easy variation of intensity levels and the simultaneous development of multiple aspects of fitness. The range of motion and dynamics of the system allows you to perform unique, multi plane exercises you cannot accomplish with other exercise machines.

TRX classes at Fenton Fitness will begin in September, so see the trainers or front desk for further information. The classes are open to non gym members and limited to eight participants.



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

Faster=Fitter

One of my favorite continuing education weekends is the annual three day Perform Better Summit in Chicago. Perform Better brings in physical therapists, strength coaches, and nutrition experts from around the world to present on various topics. This past June, four of our staff members attended the Summit, and we all agreed it was one of the best to date. My favorite presentation of the summit was by Physical Therapist and Strength Coach, Martin Rooney on utilizing the principles of Sprint Training with fitness clients.



Mr. Rooney works with world class track athletes on a daily basis. The goals these athletes seek are improved performance on the track—better times, longer/higher jumps, and to remain injury free. Martin also trains general fitness clients. Their goals are body composition change—less fat and more muscle. His general fitness clients want to look like the sprinters. Martin has found that training fitness clients with sprint based principles achieves the desired body composition goals and also improves functional strength.

Your muscles change as you age. Fast twitch muscle fibers diminish, leaving the slow twitch muscle fibers. Fast twitch muscle fibers are the larger and neurologically quicker muscle fibers that enable an athlete to react and move quickly. Fast twitch fibers are more metabolically active—more calories consumed. Many research studies have shown that training at quicker tempos can increase and improve function in fast twitch muscle fibers. Compare the body of a 100 meter dash sprinter to that of a miler and you see the influence of fast twitch muscle recruitment with quicker training speeds. Sprint based training enhances fast twitch muscle fiber response and limits the effects of aging on the muscles.

Most of the training performed in fitness centers is of the slow and controlled variety. Smooth and steady repetition tempos of two counts up and two counts down are the norm. While this type of training will produce strength and muscle hypertrophy, it fails to improve the body's ability to accelerate and decelerate. In life, we often have to quickly decelerate our body as it is acted on by gravity. Most, if not all, injuries occur at fast speeds when the body is unable to react and control deceleration. Sprint based training creates the speed you need to control a fall or adjust for a loss of balance. Training at faster speeds is a key component of injury prevention.

Power is the ability to create force in a short period of time. The "more powerful athlete" hits the ball farther and jumps higher. Boxers and martial artists train to produce large amounts of force in the milliseconds it takes to throw a punch or a kick. The basketball player that jumps higher produces more force in the moment he has to react. You can only become more powerful by training at faster speeds.

Next month, I will present several suggestions on how you can integrate sprint based training in your fitness program.

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