

Help for the Hidden Shoulder Muscle



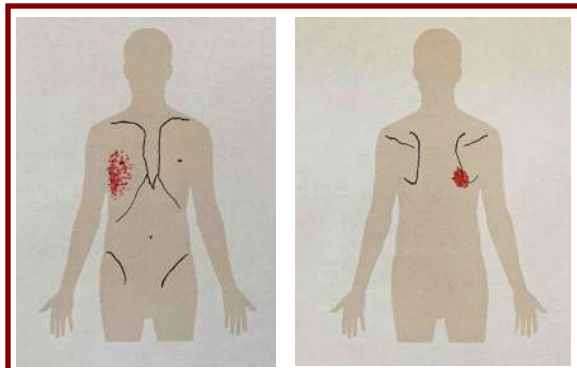
In the summer of 2019, Jerry fell off a ladder and fractured three ribs on his left side. It took ten weeks for the ribs to fully heal. Jerry returned to the gym in December, but developed a strong ache in the left side chest and upper back. The pain was absent at rest and returned with exertion. Jerry was put through a comprehensive cardiac work up and was cleared of

any heart problems. Jerry sought my assistance at a Saturday Solutions session. This is what we found.

Jerry had pain across the outside of his left chest wall and at the left side of his upper back. The pain was recreated with a challenge to his respiration and with repeated overhead reaching. Jerry reported pain with palpation of the serratus anterior, a muscle located under the shoulder blade. The serratus anterior attaches to the top eight or nine ribs and inserts onto the medial border of the scapula. It is a large, flat, fan-shaped muscle that is easily injured with an impact to the rib cage. This muscle rotates the shoulder blade upward, carries the thorax during a push up, and holds the medial border of the scapula firmly on the rib cage. While the past summer's rib fractures had healed, Jerry still had serratus anterior or soft tissue damage that had not resolved.

Jerry was unable to lift the left shoulder into full elevation. Reaching overhead created pain over the top of his shoulder. Assisting the left shoulder blade into rotation resolved the superior shoulder pain. The left serratus anterior muscle was weak and the border of his scapula protruded off his rib cage during resisted shoulder flexion.

In the fitness population, serratus anterior weakness is an all too common driver of pain and shoulder joint dysfunction. The movement of the scapula on the rib cage accounts for 60 degrees of the full 180 degrees of shoulder elevation. If the serratus anterior is unable to fully rotate, the scapula, then the glenohumeral joint is stressed. Add overhead resistance training and you create the environment for impingement syndrome, rotator cuff tendon irritation, and subacromial bursitis. Strengthening the serratus anterior frequently produces much better results than months of rotator cuff training.



New Team Training Class

Check out our new core training class—
COREilla.

This class focuses on building strength, stability, and power in the core musculature.

Classes meet Thursdays at 5:15pm, Fridays at 5:45am and 9am, and Sundays at 9am. See the front desk for more information.

Our Next Senior Strong Session

Our next Senior Strong session will start when the gym is back open.

Senior Strong is designed for individuals 60+, those with orthopedic challenges, or older adults new to working out

Sessions are offered 2x per week for 45-60 minutes. They are designed to help participants move better, feel stronger, improve work capacity, regain balance, and increase overall confidence.

See any staff member for more information or contact us at :
810-750-0351

Fenton Fitness and Athletic Center

In the physical therapy clinic, serratus anterior pain problems are common post mastectomy. Those patients often have lymph nodes removed and that aspect of the surgery creates serratus anterior muscle irritation and impaired function. In elderly clients, the use of a walker produces an overuse pain problem in a formerly sedentary serratus anterior muscle. The sustained slouch of data entry and social media glues the scapula onto the rib cage. It is not uncommon to find twenty somethings that have half the normal scapula range of motion. Training the shoulders with the scapula pinned against a bench removes much of the serratus anterior work from an exercise.

Jerry was prescribed a daily home program of shoulder mobility training and a modification of his fitness program. The pain resolved in two weeks, and he was able to progress to a strength training routine. At the sixth week, his left serratus anterior strength equaled that of his right.

STRONGER SERRATUS ANTERIOR MUSCLE

The serratus anterior is called the “Boxer’s muscle”. A jolting jab and a Joe Frazier hook are produced by powerful shoulder protraction and a stable connection of the shoulder blade to the rib cage. Anatomically, the serratus anterior is directly woven into the external oblique muscle. The external obliques are the drivers of rotational force we need for athletic success. Below are three serratus anterior strengthening drills. Read the remainder of the article and watch the video for a demonstration.

Foam Roll Wall Shoulder Flexion



This is a good beginner’s drill that can help you relearn how to move the shoulder blades. Face the wall and place a foam roller at forehead level. Lean toward the wall and put the forearms on the roller with the shoulders flexed to 80 degrees. The palms should face each other. Brace the abdominals and pull the bottom of the rib cage down. Keep a tight and tall posture. Push the roll up the wall and think about the bottom of the shoulder blades moving out and around the rib cage. Reach to 150 degrees flexion and then return to the starting position. Perform ten repetitions.

Sorinex Roll Out

The roll out activates the serratus anterior and connects it with its best functional friend—the external

oblique. The wider hand position on the Sorinex Roller makes this exercise easier on the glenohumeral joint. Kneel on a mat to keep the pressure off your knees. Your femur (thigh bone) is positioned straight up and down from the floor and the hips are hinged at 75 degrees. Place the hands on the Sorinex Roller and the elbows directly under the chin. Brace the abdominal muscles and roll out until you feel a challenge. The hips and the shoulder should move simultaneously. Hold the challenging position for three counts and then return to the starting position. Perform five to ten repetitions.

Landmine Half Kneeling Press



The landmine press is a good method of retraining shoulder joint push mechanics. The force curve is forgiving and the drill corrects common flaws in muscle recruitment. Practiced at appropriate loads and with proper form, it can work wonders for shoulder pain clients. You need a landmine attachment for an Olympic bar and an Airex pad to cushion your knee. Load the Olympic bar on one end and set up with the bar directly in front of the right side of your body. Assume a half kneeling position facing the end of the Olympic bar. Place the right knee down on the Airex pad and the left foot directly in front of the left hip. Both knees should be bent to 90 degrees flexion. Place the end of the Olympic bar in the right hand and grip the bar tightly. Grip the floor with the toes of the right foot and the entire left foot. Contract the gluteal muscles and brace the abdominal muscles. Keep a tight torso as you push the bar up with the right arm. Lean the torso forward and push the scapula around the rib cage as you reach the top of the press. Keep the elbow underneath the end of the bar during the press. Hold for two counts at the top of the press and then lower with control. Repeat for five to ten repetitions. Switch leg position and perform the exercise on the left side.

Michael S. O’Hara, PT, OCS, CSCS



Watch Mike demonstrate the exercises in this article on the Fenton Fitness youtube channel:

<https://youtu.be/VanKaTjoVKA>

Big, Bad Bread

There was a time when bread and butter used to be the “bread and butter” of many individuals' diets. Over the last decade or two, we've seen bread villainized and feared. Popular diets such as Keto, Paleo, and Gluten-free have called into question how capable the human body is of digesting various grains and the various long-term health implications of their ingestion.



At some point in time, homo sapiens decided that the seeds of various grasses were a good to eat. While purposeful growing of grains (i.e. agriculture) didn't show up until about 9–10,000 BC, there's evidence that people consumed some types of seeds much earlier (possibly even before the dawn of the Paleolithic era, some 3–4 million years ago). The relationship between grains and human digestion is complicated and nuanced. One of the simplest ways to view this relationship is to understand that most grains (like most seeds in general) would prefer not to be digested. Plants develop chemical and physical defenses to prevent their seeds from being eaten or from being digested when eaten, so that they find their way back to the ground. Some of the most common intolerances in grains stem from particular proteins in those grains such as gluten in wheat, avenin in oats, hordein in barley, secalin in rye, and zein in corn.

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The first humans to consume grains used observation and outcome-based decision making to create modes of preparation that neutralized or at least minimized any potential damage caused by the anti-nutrients in these grains. These methods also allow us to pull more potentially healthful nutrients out of these seeds. Some cultures used nixtamalization, which involves soaking and/or cooking grains such as maize in an alkaline solution such as lime (calcium hydroxide), ash (potassium hydroxide), or sodium carbonate. Nixtamalization also reduces the mycotoxins from fungi that typically infect grains. Some other common methods include soaking grains for 8-24 hours, sprouting, and fermenting. All of these methods decrease potential harm and boost mineral content.

Many individuals who identify as having gluten intolerance or sensitivity will find that they do just fine when eating fermented bread such as sourdough and sprouted grain bread such as Ezekiel bread. The issue with gluten may have more to do with modern food processing more so than the gluten itself. It's important to understand that whole, minimally processed grains can be part of a healthy and well-balanced diet. If you find that certain grains give you digestive issues, experiment with different preparation methods. Whole grains can be a great source of minerals and fiber in the diet. When removal of bread and gluten in one's diet leads to weight loss, it is most likely due to the reduction in caloric intake. Whole grains that haven't been heavily processed fill you up more than their refined and over processed counterparts and would be less likely to be over consumed.

Jeff Tirrell, CSCS, CSFC, Pn1



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For Feet's Sake



The feet are the interface between the ground and the brain. A graceful gait and not falling are enormous evolutionary benefits so an inordinate amount of

brain tissue is devoted to the evaluation of input from the feet. As we age, develop medical problems, or become deconditioned, our feet can lose the capacity to send balance and coordination data up to the brain. Training activities that enhance foot function will improve balance and keep us independent for a lifetime. Read the remainder of this article and watch the video for a demonstration of a foot to brain retraining routine.

Devote some fitness training time to restoring foot function. Anatomically, we are talking about the joints, nerves, and muscles that travel from the toes to above the ankles. The three drills described below are a good beginning but many other options are available.

Pain in the feet can alter the neural control of movement. The limp created by a painful foot leads to the sacroiliac dysfunction that creates chronic lower back pain. Find a way to reduce or abolish pain symptoms in your feet.

Uncontrolled diabetes causes neurovascular havoc in the lower legs. Many deadly and debilitating falls occur because of leg weakness and sensory loss created by diabetes. Restorative exercise is less likely to help if blood sugars remain at high levels.

Foot Waves

You can perform this exercise throughout the day and it will help keep your feet healthy and strong. Point the foot (plantarflex the ankle) and flex all of the toes. Draw the foot up (dorsiflex the ankle) and keep the toes flexed. Extend the toes while keeping the foot pulled upward. Point the foot downward while keeping the toes extended. Keep the foot pointed and flex the toes. Move through this exercise in a steady and deliberate fashion. Take time to feel the muscles activate and stretch in the foot and lower leg. Repeat the "foot wave" for five to ten repetitions. If the muscles in your feet cramp, it is the brain's signal that you need to perform this exercise more often.

Short Foot Drill

The muscles on the bottom of the foot are called the foot intrinsics. The foot intrinsics function in a manner similar to the core muscles of the torso. Their job is to brace the foot so it can transfer forces through a stabilized series of boney arches. Weak or slow to respond foot intrinsic muscles will impede the foot's capacity to decelerate forces. The short foot drill will improve foot intrinsic muscle performance.

To perform the short foot drill on the right foot place the right foot flat on the ground and place the left foot back. Bend the right knee about 20 degrees and lift the left heel off the ground so more weight is on your right foot. Lift and spread the toes of the right foot. Lower the toes back to the ground and grip the floor with the big toe. Contract the muscles on the bottom of the foot. You should feel a lifting of the right foot arches. Tighten the muscles of the right leg from the calf to the hip and lift the pelvic floor. Hold this tension in the foot and leg for ten seconds and then release. Perform five repetitions on each leg.

Retro Steps

A mirror provides visual feedback that can be helpful in improving ankle and foot control during this exercise. Perform the retro step exercise barefoot, on a level surface. You will be walking backward, so clear a path to prevent a fall. Reach a foot back and progress through landing on the forefoot and rolling over the midfoot until you actively flex the toes upward and push off the heel. Emphasize contracting the muscles that extend the toes upward and dorsiflex the ankle. Work on mastering a graceful and smooth retro step gait pattern. Perform twenty retro steps with each leg.

Watch video of these exercises here: <https://youtu.be/GrWN48sj4vI>

Michael S. O'Hara, PT, OCS, CSCS

Michael O'Hara, PT is available for individual personal training instruction at Fenton Fitness. Mike has been a practicing physical therapist for 35 years and is a board certified orthopedic specialist. He is a certified strength and conditioning specialist with over 20 years experience as a fitness problem solver. He offers post rehab exercise prescription and training instruction for all ages—training to improve quality of life.

For more information or to schedule a consultation, contact Fenton Fitness at 810-750-0351 or email moharapt@gmail.com.