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Peltrunkula Training

The Best Thing You Are Not Doing

Thirty years ago, I attended one of my first continuing education courses and heard physical therapist Gary Gray talk about functional fitness and rehabilitation. He described the interconnected nature of human anatomy and how a deficit in strength, movement, or timing in one area of the body can create pain and dysfunction in a related but distant area. Years later, Gary coined the term “peltrunkula” to describe the connection of the pelvis to the shoulder through the torso. This insight into how the body functions should be part of your self-care fitness program. In the physical therapy clinic, if peltrunkula function gets better, good things happen. Adding some dedicated peltrunkula training to your exercise program is a good idea.

Thomas Myers wrote a great book called Anatomy Trains in which he describes the interconnected web of fascia that binds the peltrunkula together. We are not a series of separate muscles, but rather a *chain link fence* of muscles and fascia that are reliant on one another to produce movement.

Physical therapist Gray Cook, in his book Movement, talks about how the neurodevelopmental sequences we pass through as infants can help us retrain movement. We owe our mobility to the flow of signals between the brain and the myofascia. Movement becomes more effortless and less painful with a neural movement map that produces efficient peltrunkula control.

Peltrunkula training prevents head, neck, and lower back pain. The connection between the hips and the shoulders is the CORE everyone is talking about. We need to focus on training this cylinder of muscle and fascia that wraps around our body and permits us to stand as a stable, yet pliable, pillar.

Most fitness activities delete the peltrunkula connection from training. Despite more talk about functional fitness, most fitness programs address the body as individual parts instead of an integrated whole. Split (upper

body on one day and lower on another) and body part training (arm day) artificially divide training stimulus and blunt the neural benefits of exercise. Peltrunkula training is simple (simple is not the same as easy). It requires minimal equipment- just some open space and a willingness to work at acquiring a new skill. These are my four favorite beginner peltrunkula exercises and thank you Gary, Thom, and Gray.

Rolling

Rolling is one of the first neural control patterns etched into your brain’s motor map. Rolling is the base developmental sequence that started you on the road to walking. In adults, rolling can clean up a lot of movement problems.



Clear a big space on the floor and lay on your back with the arms overhead.

Lift your head and turn the neck to the left. Try to place your chin in your left armpit.

Bring the right arm up and across the body to initiate a roll to the right. Do not push with your legs or lower body. Roll over onto your stomach and then try rolling back- prone to supine. Reach up and back with the head and left hand. Lift your head and keep your eyes on the left hand as you roll onto your back. You only want to use the upper portion of the body and keep the legs out of the roll.

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Video for these exercise can be found on our youtube channel at: <http://youtu.be/92pzbb0w2Qg>

The next movement is the lower body only roll. Lay supine and use just the legs to initiate the roll from supine to prone and then back again. The arms stay out of the motion as you move into right and left rotation.

It is not uncommon to be good at moving in one direction and terrible in another direction. Spend more time on your weaker move, and it will get better.

Wall and Four Point Rotation Bridges



Our body works by connecting the hip to the opposite side shoulder. Transferring up off the floor, running, throwing, swinging—these all require the hip to connect on a diagonal line through the torso to the opposite shoulder. In this age of all things seated, many people lose the capacity to

move through the torso. The all too common human apostrophe posture has us locked into a flexed over position. We need activities like rotation bridges that restore peltrunkula range of motion in order to move well and stay independent.



Rotation Bridges can be scaled to any level to retrain this connection. The wall version can be performed anywhere—your office is a good starting place. Face away from a wall. Stand slightly more than an arm's length away. Lean back

and rotate the torso to the left. Place the left hand on the wall with the arm extended and the shoulder blade down the back. Reach the right arm out in front of the body. Turn the hips to the right and squeeze the gluteal muscles. Hold for five seconds and then repeat on the other side.

The next level up in difficulty is the four point version. Get on your hands and knees. Plant the left hand on the ground and lift the right hand as you rotate the left leg through. Plant the left foot so that your body is turned to the left. Hold the right arm in front of the upper body. The upper body is facing left and the pelvis is toward the ceiling. Keep the left shoulder blade down the back and fire the gluteal muscles. Hold for five seconds and then repeat on the other side.

Crawling

This is the activity that created the peltrunkula stability that enabled you to stand, walk, and then run. At one time, we all crawled, and we did it fairly well. You need to reach back into your brain's neural software and re-boot this motor pattern with some crawling activities.

When a tiger stalks its prey, it stays low to the ground and looks straight ahead. Try to keep that visual in mind when you crawl. As you crawl, try to keep the knees close to the ground and the hips low. Hold your head up and use a long reach with the arms. The arm reach drives your crawl stride. Try to bring the knees up to a point just outside the same side elbow. If your hips do not move that far just get as close as you can. Your torso will turn as you perform the reciprocal movement with your hips. Strive for full extension and flexion at the hips. Don't rush through the crawl—use a deliberate and steady pace. Three sets of fifteen to twenty yards is a good start. My experience is that fifty yards of a good steady forward crawl is a worthy goal.



Turkish Get Ups

The ultimate peltrunkula exercise is the Turkish Get Up (TGU). "Loaded yoga" is the term used by Gray Cook that best describes the benefits of the TGU. A full discussion of how to perform a TGU is not appropriate in a brief article. The steps of the TGU are intricate, and it is best mastered by breaking the exercise into pieces. My suggestion is to get some instruction from a qualified trainer. Some hands on help and the eyes of an expert will send you on the road to an efficient TGU. Gray Cook and Brett Jones have created an excellent video and instructional booklet called *Dynami* that is very helpful. The TGU is a worthy addition to your training tool box.



Q: How often and how much peltrunkula training?

A: Everyday -- enough to keep your body moving well and more if you struggle with any of the activities. If your long term goal is to remain pain-free and independent, then keep performing these exercises forever.

-Michael O'Hara, P.T., OCS, CSCS

How To Build Muscle And Strength



The best way to preserve your functionality and maintain the activities you enjoy is to build muscle and strength. The average person loses about 3 lbs. of muscle per decade past the age of 35. This equates to a weakened metabolic rate (and often accumulation of body fat), decreased strength and power, and increased difficulty performing basic functional movements (push, pull, hinge/bend, squat, and carry). Here are the top 3 ways to build muscle and strength based on the available data as reviewed by Brett Contreras and Chad Beardsley of *Strength and Conditioning Research*.

Volume is the single biggest factor on overall muscle growth and strength. Volume is simply weight x reps x sets (ex: 200lbs done for 5 reps for 5 sets equals 5,000 lbs of volume). In order to make continued progress, volume will need to increase over time.

Relative Load is a big factor though the data is not quite as clear. It does appear that using heavier loads (above 65% of a 1 rep max) have a slight edge in the research. The anecdotal evidence that I and many others have seen validate these findings.

Muscular Failure is another key indicator and means that, at some point during the workout, you should work to the point where you are unable to complete another repetition. This is where 70-80% of gym-goers miss the boat. It's not comfortable, and it's not fun. It does, however, build character and muscles, so the effort is worth it. Save this for the latter sets of your workout to avoid early exhaustion and a decrease in volume.

-Jeff Tirrell, B.S., CSCS, Pn1

Taking Matters Into Her Own Hands

How To Make The Most of Your PT Consult

Nearly two years ago, Fenton Fitness member Annemarie Romzek was suffering from low back pain, muscle tension in the gluteus, as well as sciatica down her right leg. She was working out regularly, but when the pain became too intense on her right side to continue, she sought help. She scheduled a PT consultation with Mike where he told her that her symptoms were a result of a lower lumbar bulging disc.

"Mike started me on a series of exercises to correct the issue as well as strengthen my right leg. Mike worked with me regularly for 4 months until my progression allowed me to return to the gym doing a modified workout. I continued to progress gradually over the last 6 months, gaining my strength back, and expanding my workout program. In the last month, I have been able to return to Team Training classes and resume a full workout program."

Results like this take dedication, commitment, and a strong desire to feel better. Maintenance exercises are often mundane, but they must be done daily to

see improvement. Once desired results are reached, these exercises become a daily dose of preventative medicine.

"Although I have regained the ability to work out again, I continue to perform lower back exercises daily to strengthen my lower back and prevent injury. I appreciate the support I received from the clinic, as well as the gym, in my journey to recovery. I strongly recommend that everyone take advantage of the resources we have at Fenton Fitness to ensure a safe, strong, and healthy lifestyle."



-Amy Warner, Director of Sales and Marketing

Older, Wiser, Stronger

Preservation of muscle mass and strength are the most important components of staying healthy and remaining independent for a lifetime. A fitness program that improves strength can produce amazing results in a short period of time. The results are often life changing in older individuals. Unfortunately, mobility, tolerance of spinal compression, and central nervous system response all decrease as we age. That is why you do not see any forty year olds playing professional football or sprinting in the Olympics. Those of us past our fourth decade need to make some modifications to get the most out of a training program. I have three recommendations that will help you fight the battle.

Limit Spinal Compression



As we age, changes occur in the joints, discs and muscles that make up our spine. The discs between the vertebrae get thinner, the spinal joints develop arthritis, and the opening around the nerve roots get smaller. A lifetime of driving and sitting at a desk can create soft tissue restrictions, postural flaws, and muscle imbalances. Extra bodyweight loads the lumbar spine whenever you are upright. By the

age of 45, over 80% of the American population will have lived through either a lower back or neck pain problem that required medical attention. The combination of age related changes and occupational stressors make spinal loading with traditional strength training activities such as deadlifts, squats, and Olympic lifts problematic for many people. For-

unately, you can achieve the same benefits with training techniques that place much less compression on the spine.

Build Some Quickness

As we age, we lose the capacity to exert force quickly. We get slower before we get weaker. This loss of power production is a brought on by age related changes in our nervous system. When neural reaction time slows we become more susceptible to falls and injuries. Those of us past forty should always perform fitness activities that create a more dependable and faster neural response. These are the skills that prevent falls and keep us upright and independent. Basic medicine ball throws and agility drills should part of the older trainee's fitness program.

Move Better

Mobility and strength go hand in hand. Improving your strength and maintaining muscle mass is difficult if your ability to crawl, squat, hip hinge, transfer off the floor, and turn is limited. Many older training clients have one, two, or even three glaring movement restrictions. Restrictions in mobility create pain and blunt the effects of strength training. The good news is that with a proper exercise program most of these problems can be resolved. You just need to have an evaluation and make mobility training a priority in your training. Remember that flexibility and mobility are two different things. Many very flexible people have very limited and dysfunctional movement.

For older clients, a properly designed training program produces amazing results. Train smart and make some considerations for your age. The accompanying video has some simple training suggestions.

-Michael O'Hara, P.T., OCS, CSCS

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