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Mangled Mobility

Hamstring Help That Will Not Crush You

Her new job as a human resource manager kept Mandy in a chair all day. One year later, she had gained fifteen pounds and got winded just walking up the stairs. Her husband stayed in shape with a program of daily runs. She decided to "lose those extra pounds" with some running sessions. Mandy knew her hamstrings and hips were tight, so she stretched for ten minutes before each run. After six weeks of running, her lower back was sore and her hamstrings and hips had become even tighter. She arrived at our physical therapy clinic last July.

An assessment revealed that Mandy did indeed have very short hamstrings and tight hip rotators. We had Mandy perform her self-prescribed stretching program and every activity she demonstrated delivered stress to her lumbar spine and very little work to her hamstrings. Mandy stated that she only performed the stretches before her running sessions.

Follow Doctor's Orders

The hamstrings fall into Dr. Janda's Tonic Muscle category. Tonic muscles tend to shorten as you get older or become deconditioned. Prolonged sitting is the ideal environment to produce adaptive shortening of your hamstrings. The muscle shortening developed with hours of computer gazing, vehicle driving, fantasy gaming, and hi-def viewing cannot be unwound with two or three stretching sessions a week. To produce a functional change in the hamstring muscles, you have to stretch every day of the week. Consistency is more important than intensity. Your cat understands how to train tonic muscles.

Basic Hamatomy

The hamstrings are a collective group of four muscles that begin at the ischial tuberosity of the pelvis and travel down to attach on either side of your upper tibia. The ischial tuberosity is the bone that you sit on. The tibia is the bottom bone of your knee joint. To effectively lengthen the hamstring you must increase the distance between the two bones.

Tilting In Your Favor

The path that most people follow to deliver a stretch to the hamstrings is through the lumbar spine. They bend forward and reach down to one or both feet. In the process, the lumbar spine flexes over and the pelvis remains in a posterior tilt. They deliver a sustained loaded lumbar flexion stretch on a spine that already spends too much time, flexed and loaded, in a chair.

The degree of anterior pelvic tilt determines the amount of stretch delivered to the hamstring muscles. Most of the forward bending "hamstring stretching" you see performed in the gym and outside at the golf course and track is executed with a flexed lumbar spine and a posteriorly tilted pelvis. The hamstring muscles are not under any extra tension. The well-intentioned stretchee will tell you that they "feel tightness" in the back of the thighs and even below the knee during these stretching activities. Further evaluation often reveals that these "feelings" are usually adverse neural tension signs brought on by pulling on the nerves in the lower back and hips and not the sensation of a well-delivered hamstring stretch.

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If you wish to effectively deliver a stretch to your hamstrings, you must anteriorly tilt the pelvis and then extend the knee. The lumbar spine should be held in neutral, either with muscle contraction or with external support. The distance between the muscle's origin and insertion is increased and the lower back is kept out of loaded flexion.

We had Mandy stop all of her self-prescribed stretches and introduced her to a series of appropriate daily mobility activities. She modified her office and home workstation so that she could stand more during the day and sit less. In two weeks, her lower back pain was gone and she was able to progress to a series of strength training drills. Mandy achieved a passing grade on all of her Functional Movement Screen tests and was able to return to running. Mandy has continued with a strength and mobility training program. Over the last four months, she has lost fifteen pounds and no longer gets winded doing anything.

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

Happy Hamstrings

Athletes and fitness participants spend more time stretching their hamstrings than any other set of muscles. Your hamstrings are the muscles that propel you across the ground when you run. They need adequate and not hyper length to function efficiently. Most hamstring injuries occur because of lack of strength and not lack of length. I have a pair of simple exercises you can perform to properly stretch the hamstrings and improve strength. In life, you use your hamstrings one leg a time, so we will be training them the same way. If one side feels tighter or weaker, work hard at eliminating that asymmetry.

The Hamstring Stretch

Lay supine and bend the right leg up so the foot is on the ground. Lift the left leg up with both hands behind the knee. Hold the pelvis in neutral by either bracing the core muscles or placing a towel roll under the lower back.

Extend the left knee and push the heel to the sky. Hold the stretch for fifteen seconds and make sure you take steady and relaxed breathes. Release the stretch by bending the left knee.

Turn the left leg outward and repeat the stretch for another fifteen second hold and then repeat with the left leg turned inward. Repeat the exercise on the right leg.

Single Leg Dead Lift

Stand tall with a foam roll or a PVC pipe on the left side. Place a light dumbbell in your right hand. Lift the right foot so you are balance on the left leg. Brace the core muscles and hinge over at the hip while standing on left leg. Let your left arm help with balance as you reach the dumbbell toward the floor.

Keep the spine in a neutral position—do not allow the lumbar spine to fall into forward flexion. You should feel a strong pull in your hamstrings. Tighten the hamstrings and come back up to the starting position.
Perform five repetitions and then repeat on the right leg. Start out with two sets of five repetitions.

YouTube

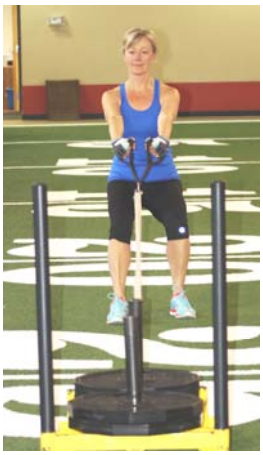
Video for these exercises can be seen on our YouTube channel at:
http://youtu.be/Fp5I5-4V6xQ

The 40 Day Difference

Train Smarter. Eat Healthier. Perform Better.

Fenton Fitness held its first-ever 40 Day Body Transformation Challenge from Feb. 7th-Mar. 18th. Fitness, education, accountability, nutrition, and support led these two participants toward successful results in decreased body fat and weight and an increase in muscle.

Cara Stewart decreased her body fat by 5.5% , losing a total of 9.6 lbs of body fat. This equated to a 9 lb loss in body weight. She also gained .76 lbs of muscle.



"The 40 day challenge provided the motivation I needed to kick start my overall diet. While my workouts had been very consistent over the past year, my nutrition had not. It was easy to incorporate the dietary changes, and the results were immediate. I had more energy, I lost weight, and I felt better overall within the first few days. Because the results were so immediate and the plan so simple, I can see myself sticking to the program long term."

Kathy Murlick decreased her body fat by 4%, losing a total of 4 lbs of body fat. While she decreased her body weight by only 1 lb, she gained 3.55 lbs of muscle.

"I like the options I have at FFAC to work in classes with others, independently, or to participate in programs like the 40 day challenge. I learned a lot about portions, calories, and making better choices in regards to food. I have made changes in my daily routine that I can continue as an easy-to-maintain lifestyle. By monitoring my calories, I don't need to deprive myself of something I enjoy and still lose/maintain my weight!"

I would like to congratulate both of them on their hard work, dedication, and willingness to stick to the plan prescribed to them over the 40 day period. *Well done!*

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

Endurance for the Unexpected

Preparing for Surgery and Recovery

After three long months of inactivity due to extensive back surgery, complicated by a subsequent infection, Fenton Fitness member, Hildegarde Bieler, is back in PT, three times a week, working to regain her strength and mobility. "Patience not being one of my virtues. I asked Mike if I could do my PT exercises in the gym and he immediately cautioned me about overdoing it, adding *'Considering the extent of your surgery, you are so much further ahead with your recovery than most people at this stage.'*"

"Of course Mike's comment appealed to my ego, but it also got me thinking… what if I had not been so determined to be in the best shape possible before my surgery?" The issues with Hildegarde's back didn't happen overnight, but worsened considerable in the months prior. She always enjoyed the Team Training classes but slowly realized that she couldn't handle any exercise with added weight that impacted her spine. Standing in one spot or even walking was becoming painful. She needed help and knew she was in the right place.

"Consulting with Fenton Physical Therapy, Program Director Jeff Tirrell modified the workouts for me, so I was still able to participate within a group setting, making it possible to get an effective workout without causing more injury. Every time the workout changed, so did my own modifications. Had it not been for everyone's effort, I might not have been physically strong enough to recover at this rate."

Hildegarde out of the gym is like a fish out of water. She has been approved to walk, so before or after each PT session, she hurries over to the gym and hops on the treadmill. Through her surgeries and recoveries, her strong desire and contagious enthusiasm to be in the gym has inspired all of us.

"I just want to say how thankful I am to be a part of the Fenton Fitness family. Lucky me!"

-Amy Warner, Director of Sales and Marketing

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Fenton FITNESS & ATHLETIC CENTER

Hours
Mon-Fri: 5:30am-9:00pm
Sat-Sun: 8am-3pm

Pressing Progress

Get More Game with Single Arm Dumbbell Bench Press

Most of the pressing you see in the gym is of the bilateral variety--both arms are pushing at the same time. Usually, the pressing motion is performed in a seated or supine position and minimal demand is placed on the core stabilizers of the torso and pelvis: bench press, incline press, seated overhead press, and the most minimally demanding Smith Machine press.

In life and athletics, we are called on to push with one arm at a time, and the critical component of our push success is the ability to stabilize the body. Pushing open a door, getting up off the floor, a running back's stiff arm and a boxer's punch—these are all examples of a single arm push that is linked to a high level of core stability.

Your fitness training should link pushing strength with a core stabilization demand. One of the best exercises to improve this skill is the single arm dumbbell bench press.

Single Arm Dumbbell Bench Press

Choose a dumbbell that is about 30% lighter than what you use for bilateral pressing. Pick up the dumbbell and lay supine on the bench. The position of your feet is very important. Place them flat on the floor at least shoulder width apart. Brace your abdominal muscles and tighten your gluteals. You must create tension throughout your legs, core, and opposite arm. Position the dumbbell over the right shoulder and perform a press for five to ten repetitions. Rest and then repeat with the left arm.

Renowned physical medicine expert Dr. Janda tells us that the deltoid, tricep, external obliques, deep abdominal wall, and gluteals are members of the Phasic muscle club and that they tend to weaken as we age or become deconditioned. The single arm dumbbell bench press lights up all of these muscles.

We know that asymmetries in performance lead to injuries. If you find one side of your body does not work as well as the other during the single arm dumbbell bench press, train that side first as your opportunity to remedy the problem. You will function better on the field of play and in the game of life.

Initially the weight you will be able to use is significantly less than with bilateral pressing. As your nervous system gets better at linking your body together your strength will improve. Efficient neural response is what makes you a better athlete.

Using a physioball will make the core stability demand of this exercise greater, but my suggestion is that you perform it on a stable bench. The risk of an epic exercise failure and the need for medical attention does not outweigh the benefit you will derive from using the physioball—be smart.

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

YouTube

Video for this exercise can be seen on our YouTube channel at:
http://youtu.be/MN7go72a7Ac

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