# To Stretch or Not to Stretch



# Should Runners and Walkers Stretch?

Should runners and walkers Stretch? Seems like an easy question to answer, however, it has been a continuous debate among runners, walkers and fitness experts over the years. Research on stretching can seem conflicting. Runners and Walkers opinions about stretching can differ depending on their own experiences. Like many running/walking-related topics, what works for one runner or walker may not necessarily work for another.

You might be asking yourself "Why Stretch?" Though much of the scientific research on **static** stretching and sports injuries shows that increased flexibility doesn't necessarily prevent injuries, the research may not be telling the whole story.

Stretching is only a piece of the whole injury free "Pie". It is absolutely essential we included proper warm-ups, strength training, and balance exercises to our injury prevention routine to reduce muscle weaknesses and imbalances.

Though stretching alone may not be a significant enough "slice" to preventing running and walking injuries, it plays a very important role. Running and distant walking makes your legs strong, toned, and, unfortunately, tight. Every step you take forces your quads, hamstrings, calves, and hips to flex and extend over and over to propel you down the road. After many miles, those hardworking muscles and tendons can develop imbalances, scar tissue, and tension, slowing you down and paving the way for common overuse injuries like IT Band syndrome, Shin Splints, Achilles tendonitis, and Plantar Fasciitis...to name a few.

The goal of stretching is to develop and maintain an appropriate range of motion around specific joints. Stretching regularly will help maintain that goal which is especially important when you are dedicated to a regular running or walking program. As we age the body loses some of the elastic properties of the soft tissue, so mature runners and walkers seem to particularly benefit from stretching. In addition, taking the time to stretch can help you relax after a hard workout which just feels good.

So, to answer your question...Yes, you *need* to stretch!!

# When Is the Best Time for Runners and Walkers to Stretch?

Whether the fitness experts think stretching is beneficial or not, most will agree that it's never good to stretch cold muscles. Think of your muscles as if they were taffy. If you stretch taffy when it's cold, it will snap. If you warm up the taffy first and then stretch it slowly, it becomes pliable stretching with ease. Your muscles are very similar, stretching cold, tight muscles or improper stretching can lead to muscle strains, tears, or other injuries. So, if you are going to stretch regularly, it is important to get the blood flowing in your muscles to warm them prior to stretching them or the fibers could snap like taffy!

# **How to Warm-Up**

You want to engage in a complete, total-body warm-up before running or distant walking, especially if you plan to put in a lot of miles. Warming up prepares the body mentally and physically. When we elevate the heart and respiratory rate our blood flow increases causing a rise in body and muscle temperature. This increase allows muscles and tendons to become more elastic or expandable, which results in decreased muscle stiffness, less risk of injury and improved performance. In addition this makes stretching the muscles and tendons easier and more effective.

#### A key element to ensure an effective warm-up is increased blood flow.

The goal is to do 5-15 minutes of light physical activity that gradually increases your pulse rate, for example a slower walk or a gentle jog. If you have been sedentary prior to your run or distance walk, a full 15 minutes is recommended.

Foam rolling can be beneficial to do as part of a warm-up, because the act of moving different body parts slowly back and forth over the roller will increase blood flow and muscle-tissue temperature.

Don't forget to start your workout with several deep breaths by inhaling through your nose and exhaling through your mouth.

# What Stretch is Best?

Just as there are different types of flexibility, there are also different types of stretching. Stretches are either dynamic or static. It is important to understand the difference of these two methods of stretching before beginning an exercise program such as running or distance walking.

## What is Dynamic Stretching?

The short definition of dynamic stretching is; stretching as you are moving or *In Motion*, you don't hold the stretch. Dynamic stretches activate and loosen up your muscles and take your major joints through a full range of motion. Dynamic stretching prepares your body for any movement you plan to perform such as running or distance walking which makes it quite useful as part of your warm-up. Dynamic stretches should start with gentler repetitive movements that are slow and controlled and gradually build up to increasing range of motion and speed of movement without jerking or bouncing. These movements will increase your heart rate, make your muscles feel loose, and will fully prepare your mind and body for your workout.

Dynamic Stretches should be done *before* exercise to help prevent injury and keep you safe during your workout.

## What is Static Stretching?

**Static** stretching is a set of movements, or stretches, that are done to lengthen, or stretch out a muscle while the body is at rest and *not moving*. Slow and fluid movements are used to get *into* the stretched position, and this position is held for a certain period of time to the point of slight discomfort, *not pain*. The stretch can be increased a bit more as less tension is felt until the same slight pull is felt again. There should be no movement or bouncing while in a static stretch. No additional weights or force should be used outside of body weight.

Static stretches are more appropriate for the cool down or *after* exercise and it can be done by anyone.

#### There are two types of static stretching: Active and Passive.

Active static stretching requires effort from the muscles of the body. **Passive** static stretching requires no effort and uses assistance from another source.

# **Pre-Exercise-Dynamic Stretches**

Listed below are dynamic stretches that will loosen up and activate all your leg muscles—inner and outer thighs, hips, hamstrings, calves, quadriceps and upper back—through full range of motion.

For each exercise, perform one set of the prescribed number of reps. Cover a distance of 10 yards for each of the walking, skipping and Frankenstein moves. Be sure to do on both sides.

#### Arms swings: Repeat 10-15 times

Side/Front Crossover - Swing both arms out to your sides and then cross them in front of your chest.

**Overhead/Down and back** - Swing both arms continuously to an overhead position and then forward, down, and backwards.



Side/Front Crossover



Overhead/Down and back

Stand tall, feet slightly wider than shoulder-width apart, knees slightly bent. Keep the back straight at all times.

#### Trunk Rotations: Repeat 10-15 times.

Extend arms to the side, at shoulder height. Twist slowly all the way to your right and back to your left.



#### Leg swings: Forward/backward and Side-to-side

Stand tall with a tightened core holding onto a sturdy object, stand on one leg keeping knee straight, swing the other leg forward and back. Repeat 10-15 times. Then swing that same leg side to side repeat 10-15 times. Each swing should build until your leg is close to its full range of motion. Complete all your reps, and then switch sides.



Forward/Backward



Side-to-Side

#### Walking Knee Hugs:

Step the left foot forward, pull your right knee to your chest then release. Step forward on the right foot and pull your left knee to your chest then release. Repeat for 15 steps alternating legs.



#### Walking Butt Kick Pulls:

Take a step and then raise your heel as close as possible to your butt. Once your heel is there grab your foot and pull the heel even closer to your butt increase the stretch to your thigh (quadriceps). Pause briefly at the top of the stretch and then return the foot back towards the starting position while taking a step forward. Repeat for 15 steps alternating legs.



#### **Frankenstein Walk:**

Stand as tall as you can with your feet shoulder-width apart. Step forward with your left foot and lift your right leg in the air while keeping the leg straight. When your leg reaches its highest point, reach with your left hand toward your right foot keeping your back straight and upright. Be careful not to kick too hard, forcing the range of motion to go beyond what you can handle comfortably. Repeat the same process with your left foot and right hand, and continue alternating legs.



#### Lunge with a Lean:

Stand tall with a tightened core and arms hanging at your sides. Take a large step back with your right leg, lowering your body until your left knee is bent at 90 degrees. Make sure your left knee is aligned with your left ankle. As you lunge, reach your right arm up over your head towards your left shoulder. Place your left hand on your left hip. Hold for 2-3 seconds then push back upward, repeat on opposite side. Do 10 (5 per leg). You can do this exercise moving forward or staying stationary.



#### **Standing Option:**



#### Side Lunge and Reach:

Stand as tall as you can with your feet shoulder-width apart. Lift your left foot and take a big step to your left as you push your hips back. Lower your body by dropping your hips and bending your left knee. Keep your right leg straight. Try to touch your left heel with your right hand, keeping your back flat. Pause, and then quickly push yourself back to the starting position. Repeat 5 times before switching sides.



### **Bodyweight Squat:**

Stand as tall as you can with your feet spread shoulder-width apart. Making sure your knees stay behind your toes lower your body as far as you can by pushing your hips back and bending your knees. Once at your lowest point pause, then slowly push yourself back to the starting position. You can hold onto something stable to help you perform the stretch like a rail or use a wall to help support proper form in your squat.





Holding a rail



Using a Wall

#### **Skipping Forward:**

This is basic running form while bringing the knees up higher than normal – ideally beyond your waistline. Bring your left leg forward and up while pushing off your right leg. Your right arm should move in front of your body with your elbow bent 90 degrees, while your left arm should swing back with elbow bent at 90 degrees bringing your left hand near your left hip pocket. Aim to keep your feet moving as fast as possible with your ankles, knees, hips and shoulders facing forwards. Repeat the same process with alternating legs.



#### Ankle Pops:

Stand with your feet hip-width apart and your arms bent around 90 degrees. Keeping your body upright, lightly bounce off both toes hopping in place, only ankles should be moving during the hop knees should not bend. Allow your heels to move upward while your balls of your feet stay pointed toward the floor. The idea is to introduce progressively more range of motion in the ankle and height as you hop.



# **Post-Exercise Static Stretch**

Experts suggest that if you hold a Static stretch for a minimum of 30 seconds per muscle group each day it can improve the range of motion in a joint. Some muscles groups may require a longer duration and frequency to see this improvement.

Daily stretching is important to improving the range of motion of a joint and increasing muscle flexibility. Doing Static stretching after a workout can help address muscle imbalances and asymmetries. Ultimately, this will help to prevent overuse injuries, especially if special attention is paid to stretches that reveal more tightness on one side than the other. In addition, stretching after activity can also bring your heart rate down, relaxing your muscles, and some say even reduce your muscle soreness.

# **How to Static Stretch**

After exercise, cool down. Then hold a given stretch only until you feel a slight pulling in the muscle, but no pain. The muscle will begin to relax as you hold the stretch. When you feel less tension you can increase the stretch again until you feel the same slight pull. Hold this position a minimum of 30 seconds.

If you do not seem to gain any range of motion using the above technique, you may consider holding the stretch even longer (up to 60 seconds). Be careful when you're stretching after a long run or walk lasting **90 minutes** or more. Your muscles can be depleted, fatigued, and vulnerable to injury. So only do very gentle stretching.

The most important body parts for runners and distance walkers to Static stretch after their workout are: back of thigh (hamstrings), front of thigh (quadriceps), hip flexors, calves, hips, lower back, triceps, shoulders, and groin.

## Do's and Don'ts for Static Stretching

Follow these tips to get the most out of your stretching:

#### Don't rush it.

Stretch slowly and hold the stretch for a minimum of 30 seconds.

#### Don't stretch through pain.

Don't stretch beyond the point where you begin to feel tightness in the muscle. You shouldn't push through muscle resistance, and never stretch to the point of pain. As you feel less tension, you can increase the stretch a bit more until you feel the same slight pull.

#### Do stretch both sides.

Don't just stretch your left calf because you feel tightness on that side. Make sure you're stretching both sides equally.

#### Don't bounce.

It's a common mistake, but bouncing risks pulling or tearing the muscle you're trying to stretch. Make sure you stretch your muscles gradually.

#### Don't hold your breath.

Stay relaxed and breathe in and out slowly. Make sure you don't hold your breath. Take deep belly breaths.

#### **Standing Hamstring Stretch:**

Stand tall with your left foot a few inches in front of your right foot and your left toes lifted. Bend your right knee slightly and pull your abdominals inward. Lean forward from your hips, and rest both palms on top of your right thigh for balance and support. Keep your shoulders down and relaxed; don't round your lower back. You should feel a mild pull gradually spread through the back of your leg. Repeat the stretch with your right leg forward.



If you have lower-back pain, do the same exercise while lying on your back on the floor and extending your leg upward.



You can use a wall to help support proper form in the Stretch.

#### Standing Quadriceps Stretch:

Stand with legs together. Bend your left leg, bringing your heel toward your butt, and grasp your left foot with your left hand. Press your shoelaces into your hand, so that your leg does the stretching instead of pulling up with your hand. Be sure to keep your body erect and the left hip slightly pushed forward. If too difficult to grasp foot with hand use a solid support to position foot on. Hold for 30 seconds. Repeat the stretch on the opposite side.





You can use a wall to help support proper form in the Stretch.

#### **Standing Hip Flexor Stretch:**

Stand with one leg back and the other placed forward. Point the toes of your back foot inward. Contract your gluts and shift your body forward, straightening your rear leg. Raise the arm that is on the same side as your rear leg, reaching to the opposite side until a stretch is felt in front of your pelvis. Hold the side stretch and then rotate backwards. Hold for 30 seconds. Repeat the stretch on the opposite side.





You can use a wall to lean onto to assistance with balance and increase the stretch.

#### **Standing Groin Stretch:**

Stand with your feet wide apart and knees straight. Bend the right knee out to the side and lean to the right. For a deeper stretch reach the left hand down toward the right ankle, keeping the back flat. Hold for 30 seconds. Repeat the stretch on the opposite side.



Keep legs slightly closer together to provide a second option of the stretch that is less intense.

#### **Standing Piriformis Stretch:**

Stand with your feet shoulder width apart. Slowly bend at the knees and place your right ankle on top of your left knee (your legs will look like the top of a number 4). Squat back into a seated position (without a chair); keep your back straight and your core strong. To get a deeper stretch move deeper into the squat. You can hold onto something stable to help you perform the stretch. Make sure your knees do not cross over your toes to protect your knees. Hold for 30 seconds. Repeat on the opposite side.



This stretch can also be done sitting or lying down

#### Standing IT Band Stretch:

With the left side of your body next to a wall, stand tall with your hand on the wall and your body an arm's length away from the wall. Cross your right leg (leg farthest from the wall) in front of your left leg (leg closest to the wall) and place your opposite hand on your hip, shoulders relaxed, feet flat on the floor. Push your left hip toward the wall, bending your left elbow. Hold for 30 seconds. Repeat the stretch on the opposite side.



For a less intense second option of the stretch cross the feet and lean forward from the hips towards toes.

#### Standing Calf Stretch:

Stand facing a wall with your hands on the wall at about chest level. Placing the ball of your right foot up against the wall, heel touching the floor, gently lean into the wall until you feel a stretch in your calf while keeping your leg straight and hip pushed forward. Hold for 30 seconds. Repeat the stretch on the opposite side.



Whenever possible find an inclined surface to support the bottom of your foot during this stretch. This will help protect the arch of your foot from being over stretched.



You can use a wall to lean onto to provide a second option of the stretch that is less intense.

#### **Standing Soleus Stretch:**

Stand with one leg in front of the other close to a wall, with both feet pointed forward. Place hands on a wall or similar for support and lean forwards. Bend both knees, trying to touch the front knee on the wall with the heel pressed to the floor. Push your hips forward, while pressing your back heel to ground. Hold for 30 seconds. Repeat the stretch on the opposite side





You can use a wall to lean onto to provide a second option of the stretch that is less intense.

For more in-depth discussion on these topics and others related to running and walking, check out the upcoming seminars at Tri-City Wellness Center by going to: <u>http://www.tricitywellness.com/classes-events/</u> or call 760-931-3171