

## **Are You Walking, fast or slowly, with Ease?**

Spring in the Northwest is a busy time for road runs and walks. If you are training you most likely are building a mileage base. You may focus on your form or technique. For some getting faster is a goal. During my classes when I ask: 'how many of you are incorporating flexibility drills and stretches into your training?' The answer is twenty to thirty percent saying they do some flexibility.

How about you? Are you more or less flexible? Do you move with ease? Or, are you feeling stuck or at a 'plateau' with your flexibility?

After years of research and studies the jury is still out on if stretching prevents injury. Experts acknowledge a biological decrease in natural flexibility as a person ages. However, decreases in function can also be attributed to a sedentary lifestyle. The combination of aging with a sedentary lifestyle almost always results in muscle atrophy. Researchers tell us that a decline in flexibility means a decline in stability, balance, and mobility. I recommend following the axiom "Move it or lose it!"

How does this impact walking? All athletic endeavors, including walking, require range of motion around one's joints. Walking performance isn't just a matter of hard training. A tight muscle is an inefficient muscle. It cannot elongate and contract quickly to make a joint move or function within its full range of motion. When a muscle's range of movement is restricted, that muscle becomes weaker and more prone to injury. You cannot move the muscle fast enough or position the body well enough to avoid trauma or overuse. Power is the combination of strength and flexibility. As a coach and personal trainer, I can attest to the fact that decreased flexibility is a leading cause of injury and reduced performance.

### 4 Tips for Improving Your Flexibility

**Tip #1: Work on muscular strength as well as flexibility. As strength improves, especially at end ranges, so too will flexibility.**

Strength vs. Flexibility.

Do you know the flexibility of a muscle is very dependent on the strength of that muscle: especially strength at the end ranges of motion? A tight muscle is not a strong muscle. Muscle strength is crucial for joint stability, so if you're trying to improve your flexibility around a particular joint, but the muscles that stabilize that joint are weak, all you're doing is making that joint more vulnerable to injury. I have experienced this with the triceps, behind the upper arm muscle group. As my strength has increased, I have much more flexibility when stretching that muscle group.

**Tip #2: Include a variety of mobility drills and stretches for all your muscle groups.**

The body adapts -- Introduce variety.

There are 605 muscles in the body. It is not uncommon for one muscle group to be made up of two, three or more smaller muscles all somewhat inter-connected to each other. This means you need to do a variety of movements designed to foster stretching. 'The hip bone is connected to the thigh bone'--

Example: If your hamstrings are tight you may experience back pain; tight hip muscles which can lead to knee pain; and, tight chest muscles can lead to upper back pain. When doing stretches to improve flexibility it is good to have a variety of stretches and mobility exercises to work these interconnected muscles as a unit, front and back.

**Tip #3: Be aware of warning signs. Injuries rarely 'just happen'. They are the outcome of repeated bodily adaptations.**

What are warning signs?

Pay attention to subtle and not so subtle messages: tightness, discomfort, soreness, sluggish recovery, cramping, achiness, sharp little pains, fatigue, sleeplessness, changes in attitude, not feeling 'quite right', etc. Remember life intervenes, too, with an injury that is unrelated to your walking, but sidelines you. The five most dangerous words? Maybe It Will Go Away.

Flexibility routines and stretches are great substitutions for a training walk when these signs are present. Suspicious symptoms should be evaluated and adjustments made to avoid or prevent further injury.

**Tip #4: Do most of your flexibility training (dynamic /mobility drills) at the beginning of your work-outs as part of your warm-up; Do your static stretches at the end of your work-outs, and late in the evening. This will help to improve your flexibility on a more permanent or longer lasting basis.**

When is best time to stretch?

Dynamic drills before exercise or as part of your warm-up helps prepare you for exercise. Doing your static, AIS or PNF is preferred after your work out, as part of your cool-down. This is when your muscles are most warm and pliable, which makes it much easier to stretch and reach new levels of flexibility.

Another great time to stretch is just before going to bed. This works at a neuromuscular level, as the increased muscle length is the last thing your nervous system remembers before going to sleep.

**Tip #5: PNF Stretching are the most effective forms of stretching for improving your flexibility quickly and permanently.**

Types of Stretching -- The four most common types of stretching are:

1. Dynamic stretching -- Incorporates movements that mimic a specific sport or exercise in an exaggerated yet controlled manner; often include during the warm-up or in preparation for a sports event. A dynamic stretching movement example is controlled leg and arm swings that take you (gently!) to the limits of your range of motion. This is a preferred warm up for activity. Don't confuse dynamic with ballistic stretches which involve trying to force a part of the body beyond its range of motion. In dynamic stretches, there are no bounces or "jerky" movements of ballistic stretching\*. Another example of dynamic stretching would be slow, controlled arm swings, or torso twists.

2. Static stretching -- Exercises that are performed without movement. In other words, you get into the stretch position and hold the stretch for a specific amount of time. Recommendations for the optimal holding time are varied, ranging from 10 seconds to 60 seconds.

3. Proprioceptive Neuromuscular Facilitation (PNF) stretching (Both active and passive) -- PNF, proprioceptive neuromuscular facilitation, stretching is currently the fastest and most effective way known to increase static-passive flexibility. Techniques involve a partner (or if using a cord referred to Active Isolated Stretching). Muscle groups are actively stretching by some combination of altering contraction and relaxation of opposing muscles; 10 second push phase followed by a 10 second relaxation phase, typically repeated a 3 - 5 times.

4.\*Ballistic stretching -- The oldest technique is the ballistic stretch which makes use of repetitive bouncing movements. It has been virtually abandoned by almost all experts in the field due to safety concerns.

#### References:

Active Isolated Stretching: The Mattes Method

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ExRx Exercise Information

<http://www.exrx.net/ExInfo.html>

The Stretching Institute Handbook

Brad Walker