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# HOW TO IMPROVE WALKING/RUNNING IN ORDER TO ELIMINATE OVERSTRIDING

There are some ways of walking/running which can lead to injury and which are less efficient. A very common mistake is walking/running with excessively straight or locked knees. Visualize walking marching "goose step" with straight knee and accentuated heel strike. Visualize running and striking the ground with the heel first and the knee is straight, this called overstriding. Either walking or running and striking the ground with a straight or hyper-extended knee leads to increased risk of developing an over use injury.

Some individuals can change quickly to adapt their gait pattern with very little instruction and practice. Others require weeks of instruction, practice and conditioning in order to alleviate the incorrect form. There are multiple reasons why some individuals quickly learn different motor skills quickly and why some individuals take longer. One reason it can take longer is not having the physical strength to perform the new motor skill. In order to walk/run and strike the ground with a slightly bent knee requires strength of the thigh muscles and calf muscles.

The following is a description of possible exercises or self practice routines, which should strengthen the thigh and calve muscles and facilitate the process of changing walking/running hyper-extension of the knee to a softer more efficient walking/running form.

### TIP TOE WALKING/RUNNING/JUMPING

Walk around on your tiptoes as high as you can get on your. Keep your arm swing normal avoid flapping your arms around. It is best to do this exercise in brief increments or time like the lengths of a TV commercial or while you are getting dressed. It is okay to do standing still, but it is better to do walking.

Running with a heel toe gait is incorrect, less efficient, and at increased risk of contributing to injury. A better running form is landing with mid-foot strike.

Run in place for brief periods. Notice this will automatically lead to running on the ball of the feet, as it near impossible to run in place with a heel strike. Run short distance less than 50 yards without allowing the heel to touch the ground, make sure you lift your knees up high. Jumping rope is done landing on the balls of the feet.

#### WALK WITH SOFT KNEE

Your knees are not meant to be straightened out all the way (locked) as you stand, walk, or run. The knee should be very slightly bent and springy when standing, walking, and running. Standing, walking, running with knees fully straight leads to knee pain, back pain, and inefficient walking and running.

In order to increase you awareness of the position of your knee, try standing with your knee locked straight than unlocked and slightly bend the knee and feel how changing your knee changes how your weight is distributed in your feet from the heels to the balls of the feet. Feel how changing the bend of your knee affects the sensations around your low back. Notice if either the right or left knee has a greater tendency to straighten or lock. When your knees are softened it can feel like a sponginess inside the knee somewhat like a hard boiled egg as opposed to when the knees are locked they'll feel sort of like a piece of wood, not able to flex or bend as well.

When walking or running when the foot leaves the ground at push off, that it is as close to being straight-legged as you should ever get, and even than it is only for a fraction of a second.

## GROUCHO MARX WALK/RUN

Those who are old enough will remember the comedian Groucho Marx. Part of his act was to walk around crouched down just for a hoot. It is best described as walking crouched down, never straightening the knee. It kind of looks like you are walking around with a load in your pants. When Groucho walking the feet kind of a shuffle or scuff along with more weight borne on the balls of the feet instead of the heels. This drill looks funny and is meant to exaggerate and facilitate learning the action of avoiding hyper-extended knee

#### INCORPORATE DRILLS INTO YOUR WALK/RUN

At various times for brief periods during portions of your walk or run concentrate on your form. When you start your run, run in place for a brief period than take off and run forward. Running in place gets you started without a heel strike. When running focus on your foot strike and make

sure you are not striking the ground first with your heel, but rather you're mid foot. Concentrate on walking/running with soft knee. The toughest time to hold correct form is when fatigued and tired, so that is when you need to focus and concentrate on holding correct form. If you verbally describe the gait correction to yourself as you do them you can develop a short mantra, such as, "soft knee", "avoid heel strike", or "hold form". Seek feedback, ask colleagues to describe or comment on your form.

For some individuals it takes more time and effort to become strong enough and skilled enough to have correct and good looking walking/running form. I have had some clients who reported it took 12 weeks to get comfortable with running with a mid foot strike. Be patient, don't get discouraged.