

# SPRING UPDATE

## Running into Spring: 10 Tips for Injury-Free Running

Now that the weather is starting to get warmer and the days are starting to get longer (MORE DAYLIGHT), many of our patients who have not been outdoors much in the winter are excited to have the opportunity to be outdoors again, and to start being active. One way that many people stay active is running.

Now you may have heard about or are even conscientious about practicing proper workplace/office ergonomics: sitting in the correct position, feet flat, eyes at proper level on computer screen, etc. from articles in previous newsletters, but how many of you think about it when you're running? **Here are 10 tips for injury-free running:**

- 1. Track your shoes' mileage.** Worn out shoes can often contribute to and/or exacerbate pain in the ankles, knees, and hips. Like the shelf-life of the loaf bread in your pantry, your shoes have a "road-life." Instead of time, shoes are best checked for "freshness" by the miles put on them. A good rule of thumb is to buy new shoes every 300 to 500 miles. This will vary from person to person. A small person with a neutral gate may get closer to the 500 miles while a heavier/taller runner may breakdown his/her shoes more quickly and only get 300 miles.
- 2. Have more than one pair of running shoes.** To extend the life of your shoes, having two pair is a great idea. Alternate your runs between the two pairs
- 3. Only run in your running shoes.** Wearing your running shoes to work or for your daily routine can quickly break them down.
- 4. Have a gait analysis done or a foot exam.** Make sure you're wearing the right pair of shoes for your foot strike. Many running shoe stores, running coaches and even your chiropractor offer gait analysis as a service.
- 5. Stretch, Stretch, Stretch!** Pre- and post-run stretching is very important in helping prevent injury. Dynamic stretching such as walking, an easy jog, butt kicks, side shuffles, walking lunges, and high knee are all examples of dynamic stretching. If you still feel tight after the dynamic stretches, you can do more of the traditional static (stretch-n-hold) stretches. After your run, static stretches for the quads, glutes, calves, hamstrings, and hip flexors are appropriate.
- 6. Drink up!** Proper hydration is vital in helping to prevent muscle cramps. If you are dehydrated before you begin your run or if you become dehydrated during your run, you increase the risk of depleted electrolytes. Potassium (an electrolyte) is needed in order for your muscles to relax after they've contracted. If you begin your run with depleted potassium levels, or you deplete them while sweating on the run and don't rehydrate while running, you increase your chances of cramping in the calves, quads and/or hamstrings.
- 7. Avoid over-striding.** Work on a foot landing that's more underneath your torso; this allows your body (ankles, knees, and hips) to work more like a shock absorber. It also allows more of a mid-foot (flat-foot) or forefoot landing allowing you to work with the pavement, not against it; this type of landing enables you to push off the ground instead of pulling-then-pushing which happens when you strike the ground with your heel out in front of the body. Heel-striking causes a breaking effect instead of allowing your body to work like a shock absorber; this breaking effect can jar the knees and hips.



- 8. Lean baby, lean!** Increase your pace by leaning forward from the ankle (not the hips). The subtle forward lean will increase your pace without widening your stride. Adding the lean not only will help increase your pace, but it will do it with less muscle activation, which means less energy used, and fatigue takes longer to set in.
- 9. Do more than run.** Adding full-body (lower-body, core, and upper-body) muscular endurance circuit training will help you build muscles that will endure and support you on your runs, particularly your long runs. Running really is about 50 percent lower-body and 50 percent upper body. The stronger (muscular endurance-wise) your core and upper-body are, the longer you will offset fatigue. Think lighter weights, more reps (12 to 15), and less rest between sets.
- 10. Sort it!** Plagued by nagging aches and pains but can't seem to pin point the cause? Track your runs on a spreadsheet. Create columns for each type of run you do (trail, road), weather conditions, your various shoes, time of day (morning, midday, afternoon). Next, add columns for other factors such as whether you fueled pre- and post-run, or stretched pre- and post-run. Then add columns for aches and pains (sore knees, sore ankles, sore hips, etc.) Finally add columns that rate the run (Great, Mediocre, Horrible, etc.). For each run, put a check mark in each column that applies to that run and do this for about four weeks. Then sort the data by the aches-n-pains columns. For example, do a sort by "Sore Knees" Then look at all the runs that caused your knees to be sore. What other common factors pop up? Did you wear an old pair of running shoes for each run? Was each run on a route with a lot of concrete? Did you forget to stretch before each of the "sore knee" runs? This will quickly help you see patterns in your running that you can avoid or try to repeat.

SOURCE: " <http://www.active.com/running/articles/10-tips-for-injury-free-running>

## RUNNING STRETCHES

Running is a great way to get fit and have fun!

### Running improves:

- The health of your heart and lungs.
- Your energy and stress levels.
- The tone and strength of your leg and hip muscles.
- Your bone density (reduces the risk of osteoporosis).

Get checked by a health professional such as a chiropractor before starting a running program to make sure it is an appropriate fitness activity for you. Then start-out slowly to allow your body time to warm-up, and stretch-out after you stop. The five stretches in this article target the major muscle groups that are used when running. Don't unlace without them!

### Remember:

- Never stretch a cold muscle
- Hold each stretch for a slow count of 30
- Repeat twice on each side
- Don't overstretch – be comfortable
- Don't bounce when stretching
- If you suffer an injury or experience pain that lasts longer than your usual post-workout soreness, ice the area to reduce swelling and inflammation, and consult your chiropractor



Figure 1 - Upper Calf



Figure 2 - Lower Calf Stretch



Figure 3 - Front of Thigh



Figure 4 - Back of Thigh



Figure 5 - Hip/Buttock

**Figure 1- Upper Calf** - Stretch your arms in front of you and place both hands on a sturdy object. Stand with feet comfortably apart with toes pointing towards the wall. Put one leg back about 12 inches from the other, keeping the knee straight and your foot flat on the ground. Bend the knee of the front leg so your hips move forward and lean into your hands.

**Figure 2 - Lower Calf** - Adopt the same position as for the upper calf stretch. Shift the foot of your back leg forward until the toes are just behind the heel of the front leg. Keep both heels on the ground with toes pointing forward. Lower your hips by bending both knees.

**Figure 3 - Front of Thigh** - Stand near a wall, bench or a post and put one hand on it for balance. Grasp your ankle or foot with the other hand. Keep your upper body straight and pull your heel up towards your buttock. The knee of the leg you are bending should point towards the ground. If you are able to touch your buttock with the heel of the foot, gently extend the hip by moving the knee backwards.

**Figure 4 - Back of Thigh** - Place one foot up on a low surface about knee high with your hands on the thigh. Keep the knee of this leg straight with the toes pointing forward. Bend forward from the hips – not the waist. Keep your lower back flat by bringing your chest towards your knee rather than your head

**Figure 5 - Hip/Buttock** - From the back thigh stretch position, bend your front knee so that foot is now on the edge of the surface. Hands on hips, lean slightly forward over the bent leg. Keep the leg you are standing on straight.

**SOURCE:** <http://www.chiropracticcanada.ca/en-us/back-and-health/back-care-tips/at-play/running-stretches.aspx>

## How Chiropractors Can Help Prevent Injuries in Runners

Chiropractors who are trained in muscle work, Graston® Technique, Kinesio® Taping, and/or ART are good sources of manual therapists for preventing injury and optimizing performance. Just think about all the Olympic Teams and Sports teams that have chiropractors trained in these techniques, and the many Olympians that have used things like Kinesio® Tape.

For a complete list of places that use Graston® Technique, please visit:

<http://www.grastontechnique.com/AboutUs/WhoUsesGT2.html>

For info about Kinesio® Taping in the Olympics, please visit:

<http://www.cnn.com/2012/08/10/health/olympics-kinesio-tape/>

For runners, chiropractic can be used for injury prevention because it emphasizes proper alignment of the spine and pelvis. Misalignment(s) of the spine can cause unnecessary tension on one particular body part, rather than an equal distribution of pressure.

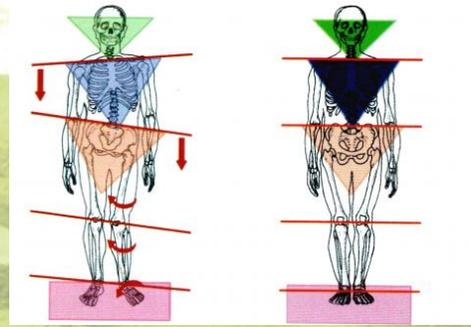
We all know muscles attach to bones, and when the muscles contract the bones (our skeleton) move. In the same way, if the bones are not in proper alignment, or in a functioning position, it can lead to the muscles feeling tight, or pain. Simply put, the pain in the body in one area, can cause compensation in another area and change the proper mechanics of the body, thus affecting performance.

When your spine becomes misaligned, your range of motion can become more restricted, with or without accompanying pain. The muscle imbalance and misalignments can lead to a myriad of "Running Injuries"

### Figure 1 – Common Running Injuries



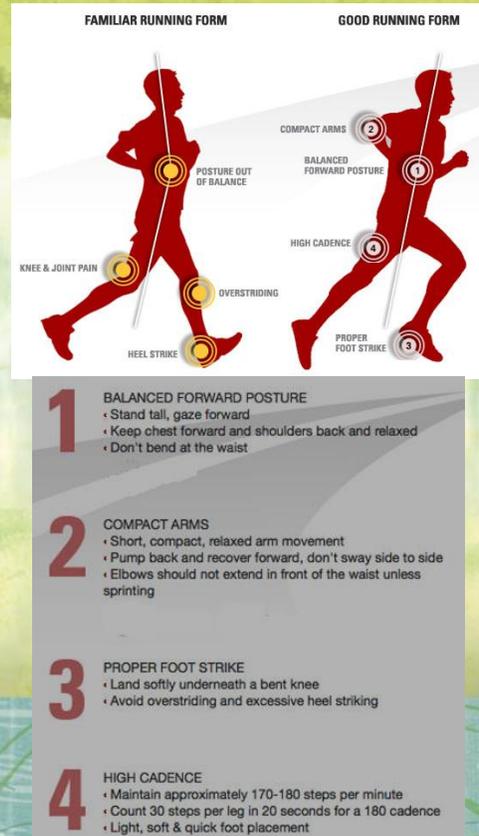
Figure 2- Misalignment from Source: [www.ogchiro.com.au](http://www.ogchiro.com.au)



A chiropractor can diagnose if your pain or restriction in range of motion is due to your spine being misaligned and can perform a spinal adjustment to restore proper alignment and range of motion, relieving pain. Additionally, a chiropractor, trained in Graston® Technique and/or Kinesio® Taping can use these therapies to help your body adapt, become pain free, and function better. Treating the muscles is a vital link in correcting and treating an area of pain. For more information about runners and soft tissue treatment, visit:

[http://www.grastontechnique.com/file/sites/\\*|86\\*|pdfs\\_for\\_links\\*|Publications\\*|MAY\\_MB.pdf](http://www.grastontechnique.com/file/sites/*|86*|pdfs_for_links*|Publications*|MAY_MB.pdf)

Additionally, a chiropractor can look at the foot mechanics and determine if there is a need for orthotics. A chiropractor can also fit patients for compression stockings and work on muscle rehabilitation and create custom exercises to train your body so it can function in the most efficient way. If you are a runner, consider making a chiropractic visit to help your performance!



## PRODUCT SPOTLIGHT: *MAG CITRATE*

Magnesium is an essential mineral for staying healthy and is required for more than 300 biochemical reactions in the body. Some of the many health benefits of magnesium include: transmission of nerve impulses, body temperature regulation, detoxification, energy production, and the formation of healthy bones and teeth.

Health specialists have always emphasized the importance of including adequate amounts of vitamins and minerals in our daily diet. Zinc, calcium, and magnesium are three of the most important minerals essential for good health. Magnesium aids in the absorption of calcium by the body, while zinc actively supports the body's immune system.

Mag Citrate™ is a blend of magnesium citrate and calcium citrate that provides nutritional support for healthy muscle function and bone formation.

- Supports muscle contraction and relaxation responses during rest or vigorous activity, and may help to prevent nocturnal leg muscle cramps.
- Supports healthy bone structure

For more information: <http://www.metagenics.com/mp/products/mag-citrate>



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