



Avoiding Training Errors

By Bill DeVault, M.D.; St. Francis Sports Medicine, Bon Secours St. Francis Health System

As the weather warms and the daylight hours lengthen, more of us hit the roads, trails and tracks running. I congratulate all the dedicated athletes who have been running all winter, but even these hard core runners often increase their workout intensity in the spring.

Early every spring I start seeing injuries from what I call "training errors." These are usually caused by increasing workout intensity too rapidly. By "intensity" I mean an increase in speed, distance, running more hills or running more on hard surfaces like asphalt and concrete.

This intensity increase can lead to overuse injuries like tendonitis, stress reactions or stress fractures in the bone structure, acute and chronic muscle strains. These things can slow your training down or even bring it to a screeching halt depending on the severity of your injuries.

The best way to avoid these problems is by making intelligent increases in your activity. For example, research has shown your muscles can increase in strength faster than your ligaments and tendons can strengthen to match in some workout

situations. Gradual increases in your exercise intensity allow your body's ligaments, tendons, muscles, and cardiovascular system (heart and lungs) to all strengthen to match your workouts. You shouldn't run eight miles instead of your usual five on Saturday just because it's a cool morning. If you do you could end up with aches and strains that require some rest and repair time before you can resume.

A better choice is to gradually increase your intensity over a four- to six-week period and allow a more coordinated conditioning of the body. Conditioning for an intense endurance event such as a marathon or triathlon can require a much longer training period. Avoid or reduce the possibility of training errors by allowing yourself plenty of time to condition for that upcoming event. Resist the temptation to run the Grandfather Mountain Marathon after two weeks of training because your running buddy dared you to do it.

If you do find yourself with aching limbs, employ the acronym RICE: Rest, ice, compression and elevation. This is good self-

treatment, especially during the first 24 to 48 hours after the onset of symptoms. Limit ice to 20 to 30 minutes a session to avoid a reactive increase in localized blood flow to the injured area. Keep a dish towel or washcloth between the skin and the ice to reduce the chance of cold injury to the skin. Compression can be done with an ace bandage or Coban wrapped on the knee for example.

Finally, you need the right equipment for your endeavors. Fortunately, running shoes are excellent nowadays. Get the right fit in length, width and arch support in addition to cushioning and flexibility. Wear the proper socks for added cushioning and reducing friction. You want to protect your limbs from impact forces. This can be measured as ground reaction force (GRF) from 1.2x body weight for walking up to 8x times body weight for sprinting or jumping. So you can see the importance of cushioning. In my opinion don't sacrifice impact cushioning for a slightly lighter "racing" shoe. Go for protection. Really good running shoes are probably cheaper than coming to see me for that overuse injury.