



### Treatment of Acute Injuries

Remember: ICE IS NICE!

This is the initial treatment for every sports injury. Most sprain/strain injuries result in microscopic tears of fibers (muscle, tendon, ligament, capsules, etc) that lead to a process called "inflammation." The 4 signs of inflammation are swelling, warmth, tenderness, and occasionally erythema (red color). If a particular part is inflamed, we add "itis" to the name e.g. tendinitis, bursitis, and arthritis.

Imagine a broken water main pipe. It starts to leak so you want to stop it by shutting down the source of the water. This is essentially what ice does - it limits the swelling. Heat, on the other hand, is like opening the water release valve all of the way. This leads to greater swelling. Place an acutely injured body part (e.g. ankle) in warm water and see how big it gets the next day! Same thing for your back and other body parts. You can take the most minor of injuries and make them feel much worse by applying heat to them, instead of ice, in the initial 24-48 hours. And, even if you don't sustain an injury, prompt application of a cold/ice pack to particular body part after a race or practice can limit (or prevent) the soreness in the subsequent days!

Warning: don't ever apply ice directly to your skin and try to limit applications to less than 20 minutes in order to prevent frost bite. This sounds stupid, but we see it in some athletes every year - they develop red blisters from leaving a gel pack on for an hour or so.

What about anti-inflammatory medications (e.g. Aleve, Advil, etc)? They are fine for use after activity/injury, but should not be used in the 24 hours preceding a race. This is because it's felt that use of these products can interfere with your body's use of salt and predispose to problems with hyponatremia (see next article). Compression with an elastic Ace wrap and elevation of the affected part also helps to limit swelling and pain.

Also, while we're on the topic, stretching is a good way to prevent some injuries. Remember that stretches should be performed in a slow, controlled manner - never fast or bouncy/ballistic. Take 5 minutes to warm up your body with some aerobic activity such as walking or jogging, then take a few minutes to stretch the muscles that you'll use the most in your sport. It takes about 10-20 seconds to stretch a muscle and this should be repeated once or twice. There is no additional benefit to performing more than 4 repetitions of a stretch for a given muscle so don't waste your time doing more than this!

### This is the Desert....

San Diego is considered a desert region, albeit irrigated so that we can all enjoy it. Still we have to worry about the sun's ultraviolet radiation and the heat.

Get in the habit of applying sunscreen - at least to your face, ears, and neck - every morning before you start the day. Best time to do this is when you brush your teeth first thing in the AM. Remember that the sun's radiation affects us almost all of the time out here. We all remember to apply sunscreen lotions to our bodies before going to the beach. However, the sun affects us when we're driving, walking to classes, etc. and the effects of the ultraviolet radiation accumulate over the years leading to wrinkles and skin cancer. Look around at adults who grew up in southern California and did not use sun protection - they all look much older than they really are due to the leathery appearance of their skin. So, if you want to keep looking relatively youthful as you age, don't forget the sunscreen! A sun protection factor (SPF) of 15 or greater is recommended.

OK, so it gets hot out here. You all know that you're supposed to drink a lot of fluid under these conditions, right? However, did you know that it's possible to drink too much and have problems? Pesky little ones like puking up your guts, seizures, or even death.

On hot days, we lose a lot of salt through our sweat, along with water loss. If we replace our lost water only, we end up diluting the salt that remains in our bodies. This condition is known as "hyponatremia" and it makes you feel awful. Symptoms may range from headache, lightheadedness and nausea, to throwing up and having a seizure (because the brain swells). Death can occur in severe cases. Therefore, it's best to prevent this by consuming a sports drink (e.g. Gatorade) for practices/races under these warm weather conditions. The flavoring in the fluid encourages the average athlete to consume more fluid than they would had they been drinking plain water, and they contain "electrolytes" - salt, potassium, etc., that you need. Be aware that the salt content is still not usually as much as you need to replace your losses, but it's much better than plain water. Therefore, it is advisable to boost the use of your salt shaker with each meal to maintain a normal body sodium level. In a pinch, you can open a small McDonald's salt packet and lick the contents from off of your hand with a chaser of cold fluid!

As alluded to earlier, don't ever take an anti-inflammatory medication (even the over-the-counter varieties) in the 24 hours preceding a race! Stick with plain Tylenol (acetaminophen) until the race is over.

### Squeeze 'em at least once a month...

Cancer is a condition where something happens to normal cells and they start growing abnormally faster than their neighbors to form tumors (neoplasia or new growth). Guys are at risk for testicular cancer starting in their teenage years through age 40. Women are at risk for breast cancer at older ages, but it can still occur in younger ages e.g. 20's. Hence, the best way to pick up these problems is to get in the habit of checking yourself at least monthly. The key to detecting new problems is to be familiar with what you normally look like and feel like. Hence, by performing simple exams while one is showering helps you to remember what is normal for you. And, if anything changes, you're more likely to pick up on it and seek medical advice from your physician.

Have more questions or need more details on the above topics? Check out the patient education section of our website at [www.medicine-in-motion.com](http://www.medicine-in-motion.com)

(Please don't throw this away - a tree died so that you might live!)