

Health Matters – May 2010

Keeping Marathon Runners Safe

If I say that running a marathon is a metaphor for life, it sounds a bit too serious to me. Marathon medical emergencies, however, can be serious. Careful preparation can minimize or even avert such emergencies. By running a marathon runners participate in an attempt to not only be fit, but to experience both as an individual and a member of a group, an event that is special.

The very special, second annual Stillwater Marathon is fast upon us. On Sunday, May 30, thousands of runners will visit Stillwater to run the marathon, the John Francis Memorial 20-mile run, the half marathon or the 12K race. As medical director of the races, I coordinate the medical volunteers. I am grateful to the physicians, physical therapists, nurses and other healthcare professionals who will donate their time and talent to make the race as safe as possible.

Safety is a partnership. Medical volunteers work closely with police, fire and municipalities; but safety also comes down to the individual runners. Whether it's training appropriately, listening to their bodies, or making sure they are prepared for race-day, runners play a key role in determining if we will see them at a first-aid station.

Consulting with your physician before undertaking a long distance race is always recommended. There are some unique medical conditions that are more common with long distance running that the medical staff has studied and that runners might want to review.

Weather conditions on Memorial Day in Stillwater can be quite dynamic. In the past it has been cold enough to snow and warm enough to make Minnesotans yearn for the lake to cool off. Runners do better with cooler temperatures, but too much of a good thing can also lead to problems. A windy, cold day could cause hypothermia if the temperature of the runner becomes too low. Warm weather without wind or with high humidity can make exercise more difficult and lead to high temperatures of runners. This condition is known as hyperthermia and it can be dangerous. First-aid tents have thermometers to determine if either problem exists in runners who aren't doing well. Both blankets and ice can help these situations, and the finish line first-aid tent also has warm broth. Additional ambulances have been hired for the race to help when further care is needed. It is very important to listen to a weather report for race day. Inclement weather may cause the race to be delayed. Although rare, if violent weather is certain the race could potentially be cancelled.

Appropriate hydration is also an important issue. Doctors tell runners to replace the fluids that are lost during long distance running. Drinking fluids when thirsty makes sense. Interestingly, the two most common problems we see on the race course are drinking too much or too little water. Runners become dehydrated if they do not get enough fluids. Dehydration can lead to symptoms of dizziness, fatigue or nausea. Happily, due to the work of volunteers handing out water and electrolyte drinks on the course, runners will have fluids available to them. We often see overdrinking of fluids in runners who are used to running at a slower pace. This dilutes the runner's blood as they sweat out salt and drink fluids that contain more water than salt. All of the extra water and loss of salt creates a problem called hyponatremia. Hyponatremia is where the concentration of the salt in the blood is too low. This can lead

to severe cramping, headaches, and in rare cases, even alter how the brain works. In mild cases of too much water, we give the runner a salty broth to drink at the finish line first-aid tent. In more serious cases medical volunteers often have to get the runner off of the course and to an emergency department. The right balance of hydration is critical for running a safe race.

Other conditions encountered in long distance runners include asthma exacerbations, scrapes/blisters or abrasions, and bee stings. Benadryl is at the first-aid stations for allergic emergencies. Runners who need Albuterol in an asthma emergency should know that an inhaler is available at each first-aid station. Proper footwear is important to help prevent blisters or abrasions, but a podiatry expert will be available at the finish line if runners need it.

When race participants get their bib number we recommend that they write any medicines they currently take on the back of the bib. If a runner cannot tell us their medical history, often seeing that they are taking medicine for diabetes, asthma or a heart condition may help a first responder.

Lastly, sometimes running the hills of Stillwater can cause muscle cramps or strains. One of the best resources on the course is the large number of physical therapy volunteers along the course. Since ibuprofen has been reported by some sources to be problematic during long distance running, Tylenol is available on the course.

I hope this information helps to make the race safer for everyone. It is an honor to work with so many dedicated volunteers to meet this end. There is not room to list them individually, but deep gratitude is deserved. If you get a chance, thank a physician on a 4-wheel drive gator, a nurse at the finish line first-aid tent, or a physical therapist on the course. The hard work of police, fire and EMS personnel in Stillwater and surrounding municipalities cannot go without a special thank you as well. Due to their combined efforts, runners can enjoy a compelling course that will challenge them, with a picturesque downtown finish in a safe and historic venue.



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