

RETHINKING HYDRATION IN SPORTS

By Sunny Blende, Sports Nutritionist

What's going on? Just when you thought you knew about water, the rules changed. The "experts" have been telling us for years to drink early, often, as much as you can tolerate and before you feel thirsty. Now those same experts are telling us about the dangers of hyponatremia or over-hydrating. What changed?

The rules on hydration and health and performance haven't changed as much as the profile of the athletes participating in today's sports events and the increased length of some of those events. Many more not-so-elite athletes are training and signing up for races and endurance events and this is a good thing. The problem lies with the different sweat rates and the longer finishing times of the slower athletes. Another change we've seen is the big increase in ultra events. It's difficult for even the best endurance athlete to balance their hydration needs after hours and hours of continuous exercise. Hyponatremia, a potentially fatal condition, can occur when an athlete exercises for a long period of time, losing too much salt, and then over-hydrates with fluids that contain little or no sodium (salt) such as water. This lowers the blood sodium content causing an imbalance that can lead to fatigue, weakness, cramping, nausea, dizziness, confusion, fainting and unconsciousness which can further lead to seizures, coma and even death.

Are you at risk? The more you sweat, the heavier you are and the longer you are out on the course, the greater risk you have. Women tend to sweat less than men and may therefore need less fluid replacement during a race. Dehydration is still a concern. Performance will diminish with as little as two percent fluid loss because it thickens the blood making the heart work harder and less efficiently as well as raising the body's core temperature. Even so, symptoms of dehydration will disappear once the athlete drinks. Hyponatremia is a much more serious condition that can easily be prevented with some knowledge of your individual sweat rate. Remember, the heavier and more muscular you are, the hotter it is and the faster you race, the more sweat you will produce.

The new Hydration Guidelines issued by USA Track & Field recommends consuming 100 percent of fluids lost due to sweat while racing. This is a significant change from the former "stay ahead of your thirst" and "drink as much as you can" instructions of previous years. If you have not yet determined your sweat rate loss, then the guidelines state, "begin your race well-hydrated and drink when thirsty." A sports drink containing sodium and other electrolytes will be a much better option than plain water.

Sweat rates can vary from one to four liters per hour; athletes vary widely according to heat, fitness levels and muscle mass. To learn your sweat rate loss, weigh yourself before and after a bout of exercise. Each pound lost represents approximately one liter or two cups sweat. For example, if you lost two pounds during an hour of exercise, but also drank two cups of water or sports drink during that exercise, then your overall sweat rate would be six cups per hour (two pounds equal two times two cups plus two more cups consumed during the hour). Try and replace every pound lost with two cups of liquid. If you are participating in an ultra endurance event, this may not be quite possible and a pound or two loss may still mean adequate hydration. Remember that water is a thirst quencher but not an ideal rehydrator. Some fluid with sodium and electrolytes would be a better choice. Sodium helps maintain your thirst and delays urine production and both promote delay of dehydration while lessening the chance of hyponatremia.