



Hydration Tips

Article by Studio7MultiSport

By now, you have probably realized that heat – especially when accompanied by exercise – causes you to sweat. Sweating is the body's primary means of getting rid of excessive heat. In general, the body loses between 64 and 80 ounces of fluid daily just through everyday activity. Add in exercise, and sweat losses can easily range from 16 to 32 ounces of fluid per hour and can be as high as 48 ounces per hour, depending on environment (heat, humidity, altitude), exertion and the individual athlete. In fact, the higher your level of fitness, the more you will sweat.

Losing as little as 2% of your body weight in fluid can impair your athletic performance – if you don't replace the lost fluids, your body's ability to sweat and regulate temperature is hampered, your ability to concentrate is decreased, muscular endurance is impaired, glycogen stores are prematurely depleted, heart rate increases, and the ability to take in and utilize oxygen is reduced.

What are some ways to prevent dehydration?

1. Drink early. Don't force yourself to play catch-up. Once dehydrated, fluids empty more slowly from your stomach. Thirst is not a good indicator – by the time you feel thirsty, you have already lost 1% of your body weight through fluid loss.
2. Drink often. Try to consume 4 to 8 ounces of fluid every 15 to 20 minutes during exercise. FYI, colder fluids empty more quickly from your stomach.
3. Practice and monitor your hydration strategy during training. Weigh yourself before and after training to determine if you are effectively replacing fluids.

Now, a word of caution:

In recent years, it seems that the dehydration message has been heard, causing many people to take action. Unfortunately, a number of people may be over-doing it, perhaps thinking "if a little hydration is good, a lot of hydration must be really good". But, as with just about everything, excess has a downside. When it comes to excess hydration, the downside may be a condition known as hyponatremia, which gained widespread attention when a 28 year old woman died during the 2002 Boston Marathon as a result of excess hydration. Essentially, she drank so much fluid that she diluted the amount of sodium in her bloodstream. Her kidneys were not able to remove the excess fluid from her system, and the fluid was absorbed by the cells in her body – including brain cells – which caused them to swell. As the brain cells expanded, they pressed against her skull and compressed her brain stem. She was declared brain dead a few hours later.

So, should I or shouldn't I?

OK, I'm not suggesting that you stop hydrating; just be sure to hydrate wisely. Follow the guidelines above – drink early and often, don't over-hydrate, weigh yourself before and after exercise. If you are gaining weight during exercise, you are over-hydrating. (In fact, the Boston Marathon medical team now suggests that runners write their body weight on their race bibs at the start of the race. That way, if there are health concerns, medical personnel can use current body weight to determine in hyponatremia might be the cause).

Note that medical professionals believe the hyponatremia problem is a much greater concern for athletes in the middle or back of the pack – the elite athletes just aren't out there long enough, nor are they stopping long enough at aid stations, to over-hydrate.

What to drink:

1. Water alone is not the answer – too much water will accelerate the dilution of electrolytes in your bloodstream.
2. Consume 30 to 60 grams of carbohydrate per hour from a sports drink. Carbs will fill glycogen stores, which fuel your muscles.
3. Avoid drinks high in fructose (simple sugar), which may cause gastrointestinal distress and impair your body's ability to absorb fluid from the stomach.
4. Be sure to replace electrolytes (sodium, potassium, chloride) lost during exercise – primarily sodium and chloride, or salt. In ultra-endurance events, replacing 250 to 300 milligrams of sodium (or more) per hour may be necessary. You may need to supplement your sports drink with additional electrolyte replacement tablets, such as Endurolytes.
5. It is important that you read the label and know what's in your sports drink and then determine if you need to consume additional supplements to meet your body's needs.

*****For more information on the [Studio7MultiSport](http://www.Studio7MultiSport.com) training programs, you can visit our website at www.Studio7MultiSport.com or email Sonni at Sonni@Studio7multisport.com.