Understanding The Importance Of Hydration

Many people underestimate the importance of water to the body. What is even more alarming is that even among the most experienced athletes, there is a huge gap in knowledge regarding the understanding as to why proper hydration is important for health, and for competitive success as well.

Water Is The Single Most Critical Nutrient

The human brain is composed of 95% water; blood is 82% water; lungs are nearly 90% water and muscles are 80% water. This makes water not only the most important nutrient in the body, but also the most abundant. Water is critical to the balance of all the body’s systems. A 2% drop in body water can cause a small but critical shrinkage of the brain, which can impair neuromuscular coordination, decrease concentration and slow thinking. Dehydration can also reduce endurance, decrease strength, cause cramping and slow muscular response.

Mild dehydration is also one of the most common causes of daytime fatigue. It is estimated that 75% of Americans have mild to chronic dehydration. This is alarming since proper hydration is required for maintaining healthy blood flow, proper kidney function, and proper sodium, potassium and electrolyte balance.

Since hydration is critical to athletic performance, we have listed 5 tips to help keep you on the playing field.

#5
Don’t Wait Until You’re Thirsty To Start Drinking!

Perhaps the biggest mistake endurance athletes make is waiting until they are thirsty to start drinking.

Upon the onset of thirst, an athlete is already 3% dehydrated which reduces maximal performance capability by 15%. This adds up to be a large chunk of time when looking at endurance events.
In fact, one study discovered a 6-7% reduction in 5k and 10k running speed in athletes who were 2% dehydrated. This would be equivalent to adding 2 minutes 48 seconds to a 40 minute 10k.

To prevent dehydration, it is best to sip on fluids throughout the day until urine flows clear to pale yellow. The rule of thumb for athletes is half your body weight in ounces a day.

Note that these fluids should be non-carbonated and non-caffeinated, as caffeine and carbonation tend to increase gastric emptying of fluids and leads to dehydration.

#4
Tap Off Your Fluid Tank Before Training

We recommend that athletes fortify themselves with at least 16 ounces of non-carbonated and non-caffeinated fluids about an hour before exercise.

For those that have trouble holding fluids, try sipping on electrolyte infused water containing sodium that last hour rather than drinking all 16 ounces at once. The sodium will help increase absorption of the water into the cells.

#3
Stay On Top Of Your Fluids During Your Workout

Maintaining fluid balance during exercise requires replacement of fluids that are lost through sweat and urine.

We recommend drinking 5-12 ounces of fluid every 15-20 minutes of exercise. If your exercise is under an hour, water is a sufficient replacement beverage. If your exercise is over an hour, a sports drink containing 7% concentration of carbohydrates will help enhance performance.

In order to get a more exact estimate of your fluid needs, determination
of sweat rate is necessary. To determine sweat rate, weigh in both immediately pre and post exercise on several different occasions. Every pound of body weight lost during exercise is equivalent to approximately 16 ounces of fluid.

#2
Don’t Neglect Electrolytes In Exercise Over An Hour

Replacement of electrolytes becomes instrumental in endurance activities lasting longer than an hour.

The principle electrolytes include sodium, potassium, magnesium, and calcium. These electrolytes are involved in metabolic activities and are essential to the normal function of all cells, including muscle function.

Proper electrolyte balance will keep you from cramping, twitching and overall fatigue.

#1
Rehydrate Upon Completion Of Training

For every pound of body weight lost during exercise, consume 16-24 ounces of fluid to rehydrate and enhance recovery form exercise. Electrolyte infused drinks are desirable for post-workout rehydration due to the sodium (which increases fluid absorption) and carbohydrate (replenish lost glycogen) content.

Get Informed, Get Moving, Get Better!