

## *“Fluid Replacement for Athletes”*

### **By: Mind to Muscle Sports Conditioning Centre**

It is an important factor that the sensation of thirst is a poor indicator of dehydration for athletes. Some people dismiss this as false, or don't feel that it applies to them. But, have you ever thought that it would decrease your body's ability to perform?

Water is necessary for almost all of our biological processes, such as digestion, absorption, circulation and excretion. During exercise, water has two critical roles. Water maintains your electrolyte balance and it also transports nutrients and by-products to and from cells. These by-products include lactic acid, which may cause a sluggish or painful feeling in your legs and arms.

With intense exercise, your body cools itself down by sweating. Without replenishing this water loss, you can lose as much as 2% of your body weight through sweating, which may decrease your performance by 15-20%. A 4% loss of body weight may cause heat exhaustion. When this occurs, your blood becomes thicker and your heart must work harder to circulate your blood. An important note for goalies; wearing heavy equipment impairs air circulation and the evaporation of sweat, allowing the body core temperature to rise. Therefore, drinking plenty of water before, during and after activity is vital to maintaining cardiovascular health, proper body temperature, and muscle function. Dehydration can result in fatigue, poor performance, decreased coordination and muscle cramping.

Recommendations: Plain water (without sugar, caffeine, or alcohol) works best to re-hydrate the body. Cool water tends to bring the greatest relief as it helps to decrease your body's temperature. It is recommended that 500ml of water should be ingested two hours prior to exercise followed by another 250 ml approximately 15 minutes before exercise. Every 15 minutes during exercise, 250ml of water should be consumed. Another 1 – 1.5 litres of water or pure fruit juice, should be ingested post exercise to replenish fluids lost during exercise and to maximize recovery. If exercise lasts longer than 60-90 minutes, an athlete may benefit from a sports drink containing a concentration of 8% carbohydrate. Drinks containing more than 8% (those that tend to be higher in sugar) may cause stomach cramps that can hinder performance.

For most events, and especially those lasting less than 60 minutes, water is the best source for maintaining the body's fluid levels. However, due to water's lack of taste many athletes tend to prefer sports drinks as their fluid intake. It is important to remember that in order for the body to work properly it must maintain a balance. Sports drinks contain sugars, potassium, and sodium that the body may not need at that point in time. However, if sports drinks are a must, then it is suggested that they be diluted with water to minimize the amounts of electrolytes ingested.