

## Hydration and its Importance for the Soccer Athlete

### Dehydration & It's Consequences

Water accounts for approximately 73% of the human body. Maintaining this level of water in the body is critically important for normal physiological functions. During activity in the heat the body sweats. This sweat then evaporates and as it does the body cools itself. We must have water to continuously replace this water that is lost. If the body is unable to adequately evaporate sweat from the surface of the skin, the core temperature will begin to rise rapidly. Dehydration occurs when the body's sweat loss exceeds fluid intake and the body's water level decreases. Dehydration of 1-2% of the athlete's body weight begins to have a negative effect on physiologic function and athletic performance. If the dehydration level exceeds 3% of the athlete's body weight the athlete is at risk for an increased disturbance of physiologic function and increases the risk of heat illness. Dehydration is preventable if proper hydration guidelines are followed.

### Signs and Symptoms of Dehydration

Some common signs and symptoms of dehydration include:

- Chills and dizziness
- Dark colored urine
- Headaches
- Dry mouth or thirst
- Overall weakness



If dehydration is prolonged or progresses, the risk of a heat illness rises. These symptoms include increased heart rate, increased body temperature, difficulty breathing, muscle cramps, nausea, and tingling in your limbs. These severe incidences can become fatal.

### Preventing dehydration and heat illness

- Properly acclimatizing your body to the heat
- Fluid replacement before, during, and after exercise
- Appropriate clothing to keep your body cool- light colored, loose fitting, one layer, breathable
- Early recognition of dehydration and heat illness
- Monitor the intensity of physical activity appropriate for the athlete's fitness level and acclimatization status.

## Suggested Guidelines for Fluid Replacement and Energy

- Pre-competition meals should be eaten 1 to 4 hours prior to the athletic event and include foods with high carbohydrates and water content
- The only “fuel” that should be consumed right before competition is cool fluids
- Include high-water content foods in your child’s daily diet (i.e. oranges, lettuce, tomato, cucumbers, watermelon)
- Drink 17-20 oz. of cool water 2-3 hours before the athletic event (training, practice, or competition)
- Drink another 7-10 oz. of fluid water 10-20 minutes before the event
- Drink 4-6 oz. of cool water, diluted sports drink/fruit juice every 10-15 minutes during the event
- After the event, weigh your child and replace every pound of weight lost with 16 oz. of plain water
- Avoid caffeinated beverages as this can increase fluid loss.

For more information go to [www.ChildrensOmaha.org/sportsmedicine](http://www.ChildrensOmaha.org/sportsmedicine), the National Athletic Trainer’s Association at [www.NATA.org](http://www.NATA.org) or the American Orthopaedic Society for Sports Medicine’s STOP Injuries program at [www.STOPSportsInjuries.org](http://www.STOPSportsInjuries.org)

