



HYDRATION

Dehydration of just 1% to 2% of body weight begins to affect your level of play. Dehydration of greater than 3% of body weight further disturbs bodily function and increases an athlete's risk of developing a heat illness (i.e., heat cramps, heat exhaustion, or heat stroke). In this section, we want to educate you on how much water you need before, during, and after you play.

HYDRATION GUIDELINES:

BEFORE GAMES & PRACTICES

- Athletes should begin all exercises well hydrated. In extreme heat and high intensity play, a player ought to weigh before and after they play to know how much they will need to rehydrate.
- Proper pre-exercise hydration includes drinking approximately 500-600 ml 2 to 3 hours before exercise and 200-300ml 10 to 20 minutes before exercise.
- Consuming carbohydrate-loaded beverages (e.g. Gatorade) during the pre-exercise hydration session - 2 to 3 hours pre-exercise, along with a normal daily diet increases glycogen stores. If exercise is intense, consuming carbohydrates 30 minutes pre-exercise may also be beneficial.
- Clear urine is a good indicator of being adequately hydrated.
- An athlete who knows that rehydrating enhances subsequent performance is more apt to consume fluid before significant dehydration occurs, so appropriate education of athletes is essential.

DURING GAMES & PRACTICES

- Coaches should mandate water breaks during practices and competitions, just as they require other drills and conditioning activities. ***A good general rule would be every 30 minutes in mild temperatures and every 15 minutes in hot weather.***
- Players should drink during water breaks even if they aren't thirsty.
- Make efforts during injury times and any stoppage of play to get water to the players on the field.
- Remember, high relative humidity limits body cooling and sweat evaporation.

AFTER GAMES & PRACTICES

- Post-exercise hydration, ideally completed within 2 hours, should contain water to restore hydration status, carbohydrates to replenish glycogen stores, and electrolytes to speed rehydration.
- Athletes generally do not rehydrate to pre-exercise levels during exercise due to personal choice, fluid availability, or a combination of these factors.
- Weighing after practices or games gives a good indication of hydration level. **Drink 20-24 ounces of fluid for every pound of weight loss.**
- Since most fluid consumed by athletes is with meals, the presence of ample fluid during meals and adequate amount of time to eat are critical to rehydration.
- **A sports drink beats plain water** because it has sugars to fuel muscles and brain, flavoring to encourage drinking, and sodium to hold fluid in the body and helps replace sweat losses.

DEHYDRATION

Signs and Symptoms of Dehydration:

Thirst, irritability and general discomfort, followed by headache, weakness, dizziness, cramps, chills, vomiting, nausea, head or neck heat sensations, and decreased performance.

Types of Heat Illnesses:

Heat-related illnesses are typically classified, in order of severity, as heat cramps, heat syncope, heat exhaustion and heat stroke. Dehydration can make you more at risk for heat cramps, heat exhaustion and heat stroke.

Heat Cramps:

- Definition: painful cramping of abdominal and extremity muscles; caused by muscle fatigue and dehydration.
- Treatment: cessation of activity, gentle passive stretching of affected muscles, drinking cool water or an electrolyte solution (low in sugar), for severe symptoms treat as heat exhaustion; improve fitness to limit reoccurrence.

Heat Exhaustion/Syncope:

- Definition: exhaustion, nausea, vomiting, and dizziness; weakness, fatigue and fainting; elevated body temperature; can progress rapidly to heat stroke unless managed properly.
- Treatment: remove the athlete from the hot environment and rest in a cool, shaded area; remove restrictive clothing -give fluids orally, if the athlete is conscious; apply active cooling measure such as a fan or ice towels if the core temperature is elevated; refer to a physician to assess the needs of fluid/electrolyte replacement and further medical attention, especially if nausea and vomiting are present.

Heat Stroke:

- Definition: **this is an acute medical emergency**; nausea, seizures, disorientation and possible unconsciousness or coma hot, dry skin and high body temperature (105°F).
- Treatment: this is a MEDICAL EMERGENCY; activate EMS immediately; monitor core body temperature and lower it as quickly as possible; remove as much clothing as possible; immersion in an ice bath has been shown to be the best method to decrease core temperature; apply ice packs in the armpits, groin and neck areas; continue cooling efforts until EMS arrives.

Tips to Preventing Heat Illness:

Tips to protect yourself and help your teammates include:

- Improving your physical fitness and adjusting your body to the heat over several days lower your risk of heat stroke. Don't jump from an easy, air-conditioned life into a summer athletic camp.
- Get fit first, and adjust to the heat for a week or two before formal practices begin by jogging 30-45 minutes a day in the heat in shorts and T-shirt. Be prepared.
- The highest risk for heat stroke occurs in the first few days of training in hot weather. The largest and most overweight athletes are the most heat sensitive.
- On the field: read your body, and never ignore early warning signs of illness. Train, don't strain.
- Take full advantage of every rest break: Sit in the shade. Sit in a cold tub right after practice. The cooler you stay, the better you play.
- Off the field: never skip meals, get plenty of fluids and get plenty of sleep.
- Watch urine, should be plentiful and pale.
- Watch weight, early weight loss is fluid loss.
- Remember, after a workout, drink 1 ½ pints of fluid for every pound of weight lost
- Dizziness on standing up is caused by fluid and salt loss

