



HYDRATION TIPS

- Monitor your urine color. A clear to pale yellow color, similar to the color of lemonade, is indicative of optimal hydration status.
- Fruits and vegetables have a high water content making them a great way to increase your fluid intake and meet your hydration needs.
- Weigh in before and after training to determine your fluid loss.
- If you are a salty sweater, eat salty foods before activity and do not be afraid to use the saltshaker.
- Carry a water bottle with you so you can drink water throughout the day.
- Other sources of water include smoothies, juice, sports drinks and tea. Be aware of the extra calories these liquids may contain.



HYDRATION AND SPORTS PERFORMANCE

Hydration is one of the most important nutritional concerns for an athlete. Water makes up 50-70% of our body weight. While training or performing, fluid is lost through the skin through sweat and through the lungs while breathing. Fluid losses need replaced during training or competition to avoid dehydration. Dehydration in an athlete causes a decrease in the volume of blood circulating through the body, and can cause serious consequences like:

- **A decreased amount of blood being pumped with each heart beat**
- **Muscles do not receive enough oxygen during exercise**
- **Performance suffers as exhaustion sets in**
- **By-products of exercise like lactic acid are not flushed out of the body efficiently**

According to the National Collegiate Athletic Association, research has shown that a loss of as little as 2% of total body weight can negatively affect athletic performance. Fluid replenishment is the key to preventing dehydration, reducing serious risks of heat exhaustion and other negative consequences of dehydration. The best way to track fluid losses is to weigh yourself before and after training.

GOALS OF HYDRATION

- Begin workouts in a well-hydrated state
- Maintain hydration throughout practice and competition
- Maximize performance
- Improve ability to recover quickly from training and competition
- Minimize injury and muscle cramps

RISKS OF DEHYDRATION

- Performance declines with as little as 2 to 3 percent decrease in body weight from water loss
- Increased core temperature and heart rate
- Decreased blood pressure
- Nausea and vomiting
- General feeling of fatigue
- Headaches or muscle cramps



HYDRATION AND SPORTS PERFORMANCE

The Institute of Medicine of the National Academies recommends a general daily fluid intake of approximately 91 oz. for female adults and 125 oz. for males with roughly 20% of that coming from food intake. Athletes have a higher need based on their increased activity levels and environmental factors like humidity or temperature. For guidance on individualized hydration needs, consult a Registered Dietitian. **Use the chart below for general fluid intake recommendations before, during and after training or competition.**

WHEN	HOW MUCH
Before Exercise	2 to 3 hours before: 16 ounces (about 1 water bottle) 15 minutes before: 8 ounces
During Exercise	4 ounces of fluid every 15 to 20 minutes (2 to 3 large gulps)
After Exercise	16 to 20 ounces of fluid for every pound lost (1 to 1½ water bottles per pound lost)

WHAT ABOUT SPORTS DRINKS?

Water is the preferred source for staying hydrated. However, if exercising longer than 60 minutes, consuming a few gulps of a sports drink every 15 to 20 minutes can help to maintain energy and electrolyte levels to sustain performance. Athletes that will benefit most from a sports drink are those intensely exercising for longer than 60 minutes as well as salty sweaters.

Sports drinks are formulated to rehydrate, provide energy and replenish electrolytes lost through sweat, like sodium. They help reduce the risk of fluid-electrolyte imbalances such as hyponatremia (dangerously low blood sodium level), which can occur after long and intense exercise when a high level of sweating occurs and large volumes of plain water are consumed. Sports drinks also provide carbohydrates—the body’s main and preferred source of energy. Carbs help fuel the muscles and the brain during physical activity, especially for stop-and-go sports and most high intensity activities.