

# HYDRATE

HELPING YOUNG ATHLETES BEAT THE HEAT



**SCOTTISH RITE**  
FOR CHILDREN  
**SPORTS MEDICINE**

Fluids play a critical role in health and athletic performance. Even mild dehydration can lead to poor performance, decreased endurance and increased risk of heat-related illness.

## THE HYDRATION/SWEAT CONNECTION

To avoid heat-related illness in practice and competition it is important for an athlete to sweat. This keeps his or her body at a safe temperature and helps to prevent overheating. As the temperature starts to increase, water and heat are released from the body in the form of sweat. The body cools off as the sweat sits on the skin and then evaporates, carrying the heat from the body into the air. Without proper hydration, the body does not have the water it needs to sweat and cool properly.

*Remember that each athlete's sweat rate differs, depending on gender, genetics, age, the environment, exercise intensity, fitness level and acclimatization.*



## SIGNS AND SYMPTOMS OF DEHYDRATION

- Fatigue early in the game or practice
- Decreased/poor performance
- Headache
- Difficulty focusing
- Overheating
- Not sweating when usually a normal to heavy sweater
- Urine that is dark in color, like apple juice (late sign of dehydration)
- Urine that is low in volume (late sign of dehydration)

## KEYS FOR SUCCESS:

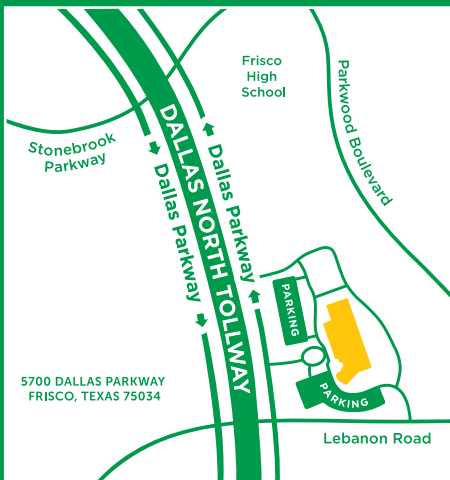
- **Drink water throughout the day** - This can help to prevent early fatigue and overheating and promote optimal alertness, body temperature regulation and recovery time after the event is over.
- **Drink plenty of fluids before, during and after the event** - Drinking after physical activity helps to replenish the body.
- **Know if you are a salty sweater** - If so, a sports drink or salty snack may also be recommended.
- **Know other ways to hydrate** - While water is the best choice, other foods and beverages including milk, smoothies, broth-based soups, and fruits such as watermelon, oranges and grapes help hydrate as well.
- **Work with your doctor, athletic trainer or sports dietitian for more specific recommendations and needs.** These professionals may help by routinely measuring pre- and post-exercise body weight to help determine your sweat rate, hydration goals and fluid recovery needs.

The Center for Excellence in Sports Medicine at Scottish Rite for Children is a comprehensive practice specializing in the treatment of sport-related injuries and conditions in young and growing athletes. Sports Medicine physicians, pediatric orthopedic surgeons, physical therapists, athletic trainers, psychologists and others work side-by-side with athletes, parents and coaches to develop the best game plan for recovery.



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## BASIC GUIDELINES

For those participating in low-intensity events such as T-ball, recreational sports, or leisurely walking in moderate temperatures, drinking water with meals and snacks and to thirst should be sufficient to prevent dehydration.

For the young athlete participating in high-intensity events such as football, basketball, soccer, hockey or cross country running in normal or hot temperatures, a hydration plan is needed. Please see the chart below for a hydration guideline.

### High-Intensity Event With or Without High Temperatures

<b>Before</b>	<ul style="list-style-type: none"> <li>• Water throughout the day, as needed</li> <li>• 16-24 oz. of fluid 3-4 hours before</li> <li>• 8-12 oz. of fluid 10-15 minutes before</li> </ul>
<b>During</b>	<ul style="list-style-type: none"> <li>• 4-8 oz. of fluid every 15-20 minutes</li> </ul>
<b>After</b>	<ul style="list-style-type: none"> <li>• 16-24 oz. of fluid per pound of body weight lost during the event</li> </ul>

\*This table applies to average-sized, healthy 10-14 year olds. Adjustments may be needed for others. Recommendations from the Academy of Nutrition & Dietetics (Sports, Cardiovascular and Wellness Nutrition) and the American College of Sports Medicine.

## WHEN MORE THAN WATER IS NEEDED

Water is the first choice for hydration but sometimes a sports drink or adding a salty snack is necessary to replace salt and electrolytes lost through sweat. A sports drink or salty snack may be appropriate in the following situations:

- High intensity activities lasting longer than an hour
- Tournaments and back-to-back events
- Hot conditions, indoors or outdoors
- Having salt on the skin or clothes after activity

## PRACTICE & GAME DAY NUTRITION

For basic fluid intake:

- Water
- Milk
- Fresh or frozen fruits
- Fresh or frozen vegetables
- Yogurt

When additional sodium is needed:

- Sports drinks (like Gatorade® or Powerade®)
- Pretzels & salty crackers
- Cheese
- Pickles
- Broth-based soup or vegetable juice

