



TIPS to Keep Athletes Hydrated

Important recommendations to ensure proper hydration

About Dehydration

Sweat losses are high during exercise, especially in hot weather conditions. When athletes sweat, water and electrolytes are lost. If this loss is not replenished, it could lead to a decrease in performance and potentially life-threatening heat-related injuries. Younger athletes are more at risk for dehydration and heat injury. Signs of dehydration include:

- Muscle cramps
- Nausea
- Dizziness
- Weakness
- Inability to concentrate

When athletes balance fluid intake with the amount of energy exerted, athletic performance will be at its best. Optimal hydration should replace sweat loss.

What do I need to drink?

Many electrolytes are lost along with fluid during exercise. The Institute of Medicine recommends that sodium, potassium and carbohydrates are included in replacement beverages. An adequate amount of sodium is needed to prevent cramping and carbohydrates are needed to provide extra energy.

Water vs. Sports Drinks

| Beverage | Amount | Carbohydrates | Sodium | Potassium |
|----------|----------|---------------|--------|-----------|
| Water | 8 ounces | 0 | 0 | 0 |
| Powerade | 8 ounces | 17g | 53 mg | 32 mg |
| Gatorade | 8 ounces | 14g | 110 mg | 30 mg |
| G-2 | 8 ounces | 7g | 110 mg | 30 mg |

How much do I need?

The amount of fluid and electrolytes needed for exercise depends on many different factors which affect sweat loss, including age, gender, clothing, weather, type of exercise and duration.

Hydration is especially important to endurance athletes, those that have more than one practice or game in a day, and those who have an increased sweat loss.

| | |
|------------------------|--|
| Before Exercise | When beginning exercise it is important for athletes to be well hydrated. At least four hours before physical activity begins, drink one-half cup of fluid for every 40 pounds of body weight (e.g., if you were 150 pounds you would need about 2 cups of fluid). |
| During Exercise | Drinking during exercise is very important, but amounts will differ based on an individual's sweating and the duration and intensity of exercise. Drinking should occur during every break. Sports drinks should be used for intense exercise lasting 30 minutes or more. |
| After Exercise | It is essential to replace fluids lost during exercise. If a normal diet is followed, one should recover properly, but it is important to add foods high in sodium to replace that lost by sweating. By adding extra sodium into the diet in the recovery phase, thirst is increased and fluid lost is retained. Individuals should drink 3 cups of fluid for every pound lost during exercise. Fruits and vegetables are hidden sources of fluid. |

Monitoring Hydration Status:

There are three easy ways to assess hydration.

1. Sweat Rate

The first way is using your body weight before and after exercise to determine sweat rate. Prior to exercise, weigh yourself naked or in typical workout gear. After the workout, change into dry clothes, wipe off all sweat and weigh yourself. The difference in body weight is your sweat rate.

1 pound = 16 ounces of sweat

For every pound lost, replace with 16-24 oz. of fluids within 24 hours.

- 1**
- 2. Specific Gravity**
The second way to assess hydration is to test the specific gravity of your urine. You can buy the test strips at a drug store. To use the test strip, you urinate in a cup, dip the stick in the urine and compare the color on the stick to the colors on the package.
- 3**
- 4**
- 3. Urine Color**
The third way to check hydration status is to assess urine color during exercise. The chart at left will help you determine if your urine color is within a healthy range.
- 5**
- 6**
- 7**
- 1-3 Very Healthy Hydration**
- 4-5 Concerned about Hydration**
- 8**
- 6-8 VERY Concerned about Hydration**



MEMORIAL HERMANN
Sports Medicine

6400 Fannin, Suite 1620
Houston, TX 77030
713.704.2200

memorialhermann.org
713.222.CARE