

PREVENTING DEHYDRATION

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During exercise your muscles can generate up to twenty times more heat than when you are at rest. The body dissipates this heat by sweating. As sweat evaporates it cools your skin, which in turn cools the blood, which then will cool your inner body. While this is an efficient way for your body to naturally cool itself, sweat loss leads to water loss from your blood and can cause dehydration. Signs and symptoms of dehydrations include decreased muscle strength, decreased speed, fatigue, muscle cramping, headaches and decreased ability to concentrate. To prevent dehydration it is imperative to drink enough fluids before, during and after exercise.

The simplest way to check if you are adequately hydrated is to check the color and quantity of your urine. If your urine is pale yellow, like the color of lemonade, and you urinate often, your body has returned to its normal water balance after exercise and you are well hydrated. If it is a dark color, more like iced tea, and you urinate very infrequently and only small amounts, your urine is full of metabolic wastes and you need to drink more fluids.

Unfortunately, thirst is not an indication of hydration. By the time you feel thirsty; you have lost significant amounts of water from your blood. Now your blood has become very concentrated, triggering the thirst mechanism and increasing your desire to drink. So by the time you become thirsty, the dehydration process has already begun. In addition, athletes may not feel or sense thirst in the intensity of a practice or a game because they are concentrating on the game and blocking everything else out. Hence, you should always plan to drink before you are thirsty and drink adequate fluids before, during and after competition to prevent dehydration.

BASIC FLUID GUIDELINES:

In order to prevent a mass consumption of fluids right before or during practice to prevent dehydration, drink all day long. Carrying a water bottle around with you that you can continually refill with water, juices, or a sports drink is a great way to remind you to drink small amounts throughout the day. Fluid recommendations before practices and games are as follows:

- Drink 16 ounces (2 cups) of fluid 2 hours before practices and games PLUS and additional 8 ounces (1 cup) 10-20 minutes prior
- Drink 6-8 ounces every 10-20 minutes during practices and games (preferably a sports drink)
- Drink 24 ounces (3 cups) of fluid for every pound lost within 2 hours after practices and games

FLUID REPLACEMENT:

After finishing a work-out it is important to replace the fluids you have lost by sweating so that your body can get back into water balance. To determine how much fluid you need to drink after a practice or game, weigh yourself both before and after practice. The goal is to lose no more than 2% of your body weight from sweat loss (for a 150 pound athlete, 2% is 3 pounds). If you have lost more than 2% of your body weight,

you did not drink enough during the day leading up to your practice or game. For each pound lost during a work-out, you need to drink 24 ounces or 3 cups of fluid within two hours after the practice or game. When you weigh in the before the next practice or game, you want your body weight to have returned to normal.

FLUIDS TO CONSUME:

While water is the cheapest and most readily available fluid to consume, it is not the only fluid you should drink throughout the day. When you sweat you lose not only water, but also other important electrolytes like sodium and potassium that help the body function normally. Decreased levels of sodium and potassium can lead to thirst and muscle cramping. Here is a list of the best choices for replacing fluid loss:

- Juices, which supply water, carbohydrates, vitamins and potassium (ex: orange, pineapple and cranapple juices)
- Watery foods such as watermelon, grapes, and soups that supply fluids, carbohydrates, sodium, potassium and vitamins
- High carbohydrate sports drinks or soft drinks, which supply fluids and carbohydrates, but minimal if any vitamins or minerals
- Commercial fluid replacement drinks, which supply fluids, some carbohydrates, sodium and a few vitamins if fortified with them (ex: Gatorade, Powerade, Vitamin waters)
- Water

If you become dehydrated during exercise, you should drink more frequently for the next day or two. Your body may need up to 48 hours to replace the sweat losses, so it is important you pay attention to your hydration and make a conscious effort to drink more. You will know you are re-hydrated when your urine is clear or pale yellow and you have to urinate frequently.