Water vs. Sports Drinks

From Elizabeth Quinn, Your Guide to Sports Medicine.

What should you choose for improved performance

Proper hydration is extremely important during exercise. Adequate fluid intake for athletes, even the recreational kind, is essential to comfort, performance and safety. The longer and more intensely you exercise, the more important it is to drink plenty of fluids. Inadequate water consumption can be physically harmful. Consider that a loss of as little as 2% of one's body weight due to sweating, can lead to a drop in blood volume. When this occurs, the heart works harder in order to move blood through the bloodstream. Prehydration and rehydration are vital to maintaining cardiovascular health, proper body temperature and muscle function.

Dehydration is a major cause of fatigue, poor performance, decreased coordination and muscle cramping. To avoid the above, the American College Of Sports Medicine suggests the following:

1. Eat a high carbohydrate, low fat diet & drink plenty of fluids between exercise sessions. (Plain water or fluids WITHOUT sugar, caffeine or alcohol are the best).
2. Drink 17 oz (2+ Cups) of fluid 2 hours before exercise.
3. Drink every 15 minutes during exercise.
4. Keep drinks cooler than air temperature & close at hand (a water bottle is ideal).
5. If you exercise for more than 60 minutes, you may benefit from a sports drink containing carbohydrate (not greater than 8% concentration, though).
6. Take 30-60 grams of carbohydrate per hour to delay fatigue & fuel muscle contractions.
7. Inclusion of sodium (0.5-0.7 g./1(-1) of water) ingested during exercise lasting longer than an hour may enhance palatability, and therefore encourage athletes to drink enough.

Although athletes are more prone to suffer symptoms of dehydration, all exercisers can increase performance & delay fatigue or muscle pain by staying properly hydrated. Consider 'prehydrating' by drinking 12-16 ounces of water 1-2 hours before exercising.

How much is enough?
To get an idea of just how much you need to drink, you should weigh yourself before and after your workouts. Any weight decrease is probably due to water loss (sorry, but you didn't just lose 2 pounds of body fat). If you have lost 2 or more pounds during your workout you should drink 24 ounces of water for each pound lost.

Another way to determine your state of hydration is by monitoring your morning and pre-exercise heart rate. Over the course of a few weeks, you will see a pattern. This information can be extremely helpful in determining your state of recovery. Days when your heart rate is elevated above your norm may indicate a lack of complete recovery, possibly due to dehydration.

What about Sports Drinks?
Sports drinks can be helpful to athletes who are exercising at a high intensity for 90 minutes or more. Fluids supplying 60 to 100 calories per 8 ounces helps to supply the needed calories required for continuous performance. It's really not necessary to replace losses of sodium, potassium and other electrolytes during exercise since you're unlikely to deplete your body's stores of these minerals during normal training. If, however, you find yourself exercising in extreme conditions over 5 or 6 hours (an Ironman or ultramarathon, for example) you will need to add a complex sports drink with electrolytes. Athletes who don't consume electrolytes under these conditions risk overhydration (or hyponatremia). The most likely occurrence is found in the longer events (five hours or more) when athletes drink excessive amounts of electrolyte free water, and develop hyponatremia (low blood sodium concentration).

What about Caffeine?
While caffeine may have some ergogenic properties, remember that it acts as a diuretic causing your body to excrete fluid instead of retaining it, so it is not the wisest choice when trying to hydrate. You're better off with plain water or fruit juice until your weight reaches that of your pre-exercise state. For additional information on hydration and exercise, check out the following links.