

## Hitting the Water Bottle

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**With summer and rising temperatures just around the corner, extra attention should be given to the fluid needs of your athletes. Dehydration is defined as "an abnormal depletion of body fluids"(Webster's Medical Desk Dictionary, 1986), and can be a very damaging situation. The human body is 50-60% water and muscle is 75% water. Each body cell, tissue, and organ needs water to function. Therefore, it makes sense that without water, we aren't going to function very well, much less at 100% of our capability.**

So, how much is enough? The latest recommendation for minimum intake is to drink half your body weight in ounces of WATER per day. For example, if Jill weighs 100 pounds, she should drink 50 ounces of water per day which equals a little over 6 cups per day (one cup = 8 ounces). This way, water intake is more individualized instead of the standard "8, 8-ounce glasses of water per day." This amount does NOT include what Jill drinks during workout! Because of the extra demands of exercise, fluids taken in during workout are above and beyond what is needed on a daily basis.

We know that dehydration adversely affects the performance of an athlete. As little as a 2% loss in body water (typically 1-2 pounds) can effect performance 10-15%. Dehydration can become serious very quickly. Here are some signs of the progressive effects of dehydration:

<b>Percent Loss of Body Water</b>	<b>Signs of Dehydration</b>
0-1%	Thirst
2-5%	Dry mouth, flushed skin, fatigue, headache, impaired physical performance
6%	Increased body temperature, breathing rate, and pulse rate; dizziness; increased weakness
8%	Dizziness, increased weakness, labored breathing with exercise
10%	Muscle spasms, swollen tongue, delirium
11%	Poor blood circulation, failing kidney function

The most precise way to evaluate how much water an athlete loses is to weigh before and after practice. This will tell you how much water was lost during one workout, and how much must be replaced (drink 2 cups of water for each pound lost). However, I do not recommend this method because the importance of this information can become muddled in translation and weight tends to become the focus instead of how much fluid was lost and should be replaced. A better way to determine hydration status is to focus on the color of urine. It should be light in color, almost clear. A dark or bright yellow color probably means that you are not properly hydrated. Keep in mind that some multi-vitamins effect the color

of urine-usually turning it bright yellow. Do NOT rely on thirst to tell you if you are properly hydrated. You won't feel thirsty until you are already a little dehydrated and have lost important fluids and electrolytes.

Remember that Jill needs to drink about 60 ounces of WATER everyday. What about other fluids? There is no drink that your athletes (or you) have to completely avoid, but keep in mind that caffeine (and alcohol) has a dehydrating affect! I recommend that for each soda, tea or coffee (and alcohol if you are old enough) you drink, make up for it by drinking 2 extra cups of water.

**The goal is to keep performance up by maintaining hydration.** Not only is it important that your athletes are drinking enough fluids (mainly water) throughout the day, but it is equally important that the coaches are setting a good example. You are in the gym just as long if not longer than your athletes and working hard too! Let the kids see you guzzle water or some type of sports drink. Carry a water bottle with you at all times.

So what's the scoop on sports drinks? It was originally thought that unless you were doing strenuous exercise for 60 minutes or more, water was the best thing for you. Now there is new research that supports consuming sports drinks during high intensity exercise of 60 minutes or less enhances performance. Sports drinks are popular for different reasons. One is that they are more palatable than water to some athletes, therefore the athlete ends up drinking more fluids and maintaining hydration easier. Another reason is if you have 4-5 hour workouts, it is very important that your athletes are refueling during practice. This can easily be done with a quick snack or a sports drink. Drinks of 6-8% carbohydrate are recommended because they move through the stomach into the working muscles quickest.

So should you encourage your athletes to drink a sports drink in lieu of water? Hydration prior to workout is still a big consideration. It is possible that if your athlete is dehydrated when they come to the gym, a sports drink might not give them what they need as much as water would. Temperature, humidity and type of exercise play a role too. If you have an athlete that has a hard time drinking enough water to ensure proper hydration, suggest other choices such as sports drinks, sugar-free kool-aid or juice. I still recommend water as the best choice, but something is better than nothing!

**Of course, as the weather warms up, it is vital that you and your athletes are properly hydrated.** However, hydration is something that should be enforced all year, no matter what Mother Nature is doing! Here are some quick tips to keep in mind for both you and your athlete:

- **Drink at least half your body weight in ounces of water per day.**
- **Be aware that caffeine and alcohol have a dehydrating effect**
- **Drink cool fluids - this will help to cool your body, and cool fluids move through the stomach faster, thus allowing for more rapid absorption.**
- **Drink 2-3 glasses of fluid (water) about 2 hours before workout/competition - your body loses water in sweat during a good workout in an effort to keep you cool. Losses can range anywhere from one cup to two quarts an hour. Get hydrated before coming to gym!**
- **Drink another 1-2 glasses of fluid (water) 5-10 minutes before start time.**
- **Drink every 15-20 minutes during exercise - drink early and at regular intervals.**
- **Drink before you get thirsty**
- **After workout/competition, drink enough to quench your thirst, then drink**

**more!**

- **Monitor hydration status by the color of urine - it should be very pale or almost clear.**