

## Hydration: A Key to Success

Water. The human body is 55-65 percent water. We consume water on a daily basis and in many forms. Sometimes we drink a lot and sometimes we may not consume as much as we need. However, when you become an athlete and specifically a runner, water becomes even more vital to your health, training and success. That's why it is important to know how to maintain ideal hydration status.

How much hydration is needed to optimize the body for running? Hydration is important before, during and after running. Hydration keeps body functions enhanced during exercise. Without proper hydration during exercise, the heart, lungs, muscles and blood vessels may not function optimally. This may, in turn, affect your ability to exercise at peak performance levels.

There is not a standard recommendation for hydration status and fluid consumption. Weather, body type, speed and the length and type of course all affect how much hydration you will need. If you are running for an hour or less, there is not a significant concern that you need to hydrate in advance. But for longer runs, hydration should start about four hours in advance. If your run is in the morning, hydrate the night before. I recommend you drink 2-3 ml (about 0.1 ounces) of water per pound of body weight, spaced out during four (or more) hours prior to the run. That amounts to 16 ounces if you weigh 160 pounds, for example. Do not drink a large amount of fluid right before the run because it can affect performance and cause stomach cramping, nausea and sloshing.

Your hydration status during your run becomes more of a science and is probably the most important time to monitor fluid intake. Once again, no two runners are the same. It is vital that on longer runs you closely monitor your hydration status to prevent dehydration or hyponatremia, which is an overload of fluid that affects the sodium status in the body.

Monitoring your sweat rate is one way to calculate your hydration needs. The sweat rate is how much fluid is lost during training and competition. The calculation is done by weighing yourself before you run and then again after you run. The difference is the weight of fluid lost through sweat. You should aim to replenish much of this fluid during your run -- but it is not necessary to precisely match the amount of fluid lost and be careful not to exceed it.

Remember that your sweat rate will change depending upon the weather conditions, distance and speed. It is a good idea to keep a log based on these conditions so that you know your replenishment rates. On longer runs, you will need more than just water as you also will lose sodium and minerals that are important to cardiac/pulmonary/muscular function. Sports drinks, gels and bars help replenish these essential minerals. And finally, do not drink at every water station during a race. Too much fluid can overload you and cause hyponatremia.

After your run, your fluid intake should match your thirst. The body has an inherent ability to trigger your thirst centers so you will maintain what your body needs. One way to monitor your fluid status is

to monitor your urine. It should be a yellow to pale yellow color. If it is clear, you may be fluid overloaded and if it is a darker color, like the color of apple juice, you are not sufficiently hydrated.

As a runner, you can see that hydration is very important in performance and overall health. Not maintaining proper hydration can affect your running performance and can cause health problems. Using these simple tips will allow you to function at the proper level and keep you on the road to your goals.