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Fluid Facts for Athletes

If you are a serious athlete who works up a good sweat, you might have wondered how much you should drink before, during and after a hard workout. According to the American College of Sports Medicine's latest update on fluid needs for athletes (1), only you can determine that answer because fluid needs vary greatly from person to person. Here's what ACSM has to say.

Sweat rates commonly range between one to four pounds (one half to two quarts) per hour, depending on your sport and environmental conditions. Sweat rates for a 110-pound slow runner might be one pound (16 oz) of sweat per hour, while a 200-pound fast runner might lose about four pounds (a half-gallon) per hour. Even fast swimmers sweat -- almost a pound per hour of training. Football players might lose more than two gallons of sweat in a day. Few athletes actually make the effort to learn their sweat rates; they simply drink according to thirst throughout their workout. This can be OK if you exercise gently for less than an hour. But if you will be sweating bullets for extended exercise, you really should know your sweat rate. Otherwise, you are likely to repeatedly under-hydrate, become chronically dehydrated and hurt your performance.

To determine if you are adequately hydrating on a daily basis, simply weigh yourself nude each day in the morning after having emptied your bladder and bowels. Your weight should remain relatively stable and not creep downwards. This weight assumes
you are not restricting calories to lose fat-weight
you have not eaten abnormally high amounts of sodium the night before, such as a water-retaining Chinese dinner
you are not experiencing two to four pounds of pre-menstrual bloat.
There's no need to try to super-hydrate pre-exercise; your body can absorb just so much fluid. If you overdrink, you then may have to (inconveniently) urinate during exercise; the kidneys can only make about one quart of urine per hour. A wise tactic is to tank-up two or more hours pre-exercise; this allows time for your kidneys to process and eliminate the excess. Then drink again five to 15 minutes pre-exercise.

Some athletes can tolerate exercising while dehydrated better than others. But most athletes who lose more than two percent of their body weight in sweat losses lose both their mental edge and their physical ability to perform well, especially if the weather is hot. Yet during cold weather, you are less likely to experience reduced performance even at three percent dehydration (4.5 lbs sweat loss for a 150 lb athlete). Dehydration (three to five percent) does not seem to impact either muscle strength or anaerobic performance. Yet, sweat loss of nine percent to 12 percent body weight can lead to death.