

The Importance of Hydration

Hydration is defined as the water levels in someone or something (Answers.com, 2009). It is important for people to be properly hydrated, not only in exercise but in daily activity, because your body loses water naturally through sweating. If the body is not properly hydrated, especially during exercising, heat strokes, dehydration and heat cramps could occur (Trivial Business, 2005). Heat stroke is a serious condition that occurs when your body doesn't have enough water in its system and loses the ability to cool itself, and may result in severe headache, high fever, and hot, dry skin. In severe cases, a person with heat stroke may collapse or go into a coma (Children's Health, 2010). Dehydration is when the body needs more water, commonly seen after exercising if the athlete hasn't kept properly hydrated. Dehydration could result in headaches and vomiting. Heat cramps are painful muscle contractions that are caused by lack of water in hot conditions (Dr. Reddy, 2008)

Many people who try to keep hydrated have to answer the big question of: What is the best drink to have? Anyone who is asked this question would usually say water, but in some cases that is not entirely true. It is true that water is healthier for you in normal circumstances, but to someone who is exercising a lot, like a runner or a football player, the added ingredients can help contribute to overall performance. Sports drinks are better for athletes because they have already dissolved minerals in them, unlike water. These minerals help absorb the sports drink into your bloodstream quicker (Rowlands, 2007). This creates faster results. Water also causes bloating if consumed too much, while sports drinks do not. Sports drinks also are more appealing in taste and color, so people drink more of it (Helmenstine, 2001).

Another choice to keep a body hydrated is juice, juice may be nutritious, but it isn't the best choice for hydration. Fructose, the sugar found in fruit, reduces how much water the cells in

a body absorb and they don't get hydrated very quickly. Juice is also, in a way, a food, so people don't usually drink it in large amounts. Juice has carbohydrates, vitamins, minerals, and electrolytes, but it doesn't supply the appropriate needs for hydration that other drinks could (Helmenstine, 2001).

Energy drinks are also drink of choice. Energy drinks are made up of caffeine, taurine (amino acid that regulates energy levels), guarana (comes from a plant, increases alertness and energy), B vitamins (help convert food to energy), Ginseng (herb, increases energy), ginkgo biloba (comes from a rare tree, helps with concentration and circulation), L-carnitine (amino acid, increases metabolism and energy levels), sugar, or glucose (body's "fuel"), anti-oxidants (helps the body recover), glucuronolactone (form of glucose, aids in detoxification), yerba mate (made from leaves on a holly like shrub, has effects like caffeine, but without the bad side effects), creatine (found in meat, helps in supplying energy to the muscles), acai berry (rich in anti-oxidants). Milk thistle is found in some drinks like Rockstar, and although it has no energy enhancing properties, it is supposed to help hangovers and detoxing the liver if the drink is mixed with alcohol (Babu, Church, Lewander, 2008). Some negative effects of consuming energy drinks are dehydration, increase of heart rate (fatal for someone with heart problems), and weakening of the immune system though too much consumption of sugars and caffeine (Burgundy, 2007). Some areas, like Westfield High School in Fairfax County, VA, have banned energy drinks altogether. The athletes at Westfield are not allowed to drink these drinks after some instances where kids had to be carried off the field due to loss of breath, and cases of severe headaches, nausea, and difficulty concentrating. Some people say kids will drink more than they should because they don't realize how much caffeine is in the drinks, so they think they should keep drinking. Now all these athletes drink on the field is water (Alfano, 2006). Drinks

like energy drinks, soda and alcohol are not appropriate beverages to meet your body's fluid requirements. Energy drinks are bad because of the high percentage of sugar and caffeine that causes your body to speed up and use more energy and water than it should, once the kick of the drink wears off, the drinker usually feel dehydrated. Soda is bad because they hold no nutritional value and hold carbohydrates that slow the body's absorption of water. Alcohol is viewed as bad because it dehydrates the body altogether (Helmenstine, 2001).

Another discussion that is centered around hydration is: What about sport drinks? Sport drinks are made for people who exercise a lot, and are used by many athletes, like football players, and basketball players. Sport drinks are made up of a mixture of sodium, glucose, water and flavoring. The sodium and water helps the body replace nutrients that were lost in sweating. The glucose helps give an energy boost to athletes. Carbohydrates, which are made from sugar, are used in helping the muscles with fatigue (Wolf, 2009). The original sport drink, Gatorade, was originally made for the athletes. There can also be negative effects of consuming sport drinks, usually for non-athletes. One negative effect is tooth decay. Mark Wolff, professor and chairman of the department of cardiology and comprehensive care at New York University College of Dentistry, put cow teeth (because of their similarity to human teeth) in sports drinks like Vitamin Water, Life Water, Gatorade, PowerAde, and Propel Fit Water. After soaking for 75 to 90 minutes, to show the consumption of a beverage over time, the test showed that the teeth were more decayed than tests on the decay of teeth with soda (Betsch, 2009). Sport drinks can also create a negative effect on people with diabetes. Because of the high levels of sugar in some sports drinks, it could be dangerous.

When consuming sport drinks, an athlete should have a schedule, so they can know when to drink and when to stop. Knowing what to take and when is effected by the types of sport

drinks, the two that are used by high endurance athletes, like runners or soccer players, are isotonic and hypertonic. Isotonic sports drinks quickly replace fluids lost by sweating and supply a boost of carbohydrate. This kind of sports drink is best consumed when the body has a glucose concentration of six to eight percent; this is usually at the beginning or the end of the workout (Women's fitness, 2010). Hypertonic sports drinks supply daily carbohydrate intake to normal after exercise to help muscle glycogen stores. In long distance events, high levels of energy are needed and hypertonic sports drinks can be taken during exercise to meet the energy requirements. If used during exercise hypertonic drinks need to be used with isotonic drinks to replace fluids (Women's fitness, 2010). For non-endurance athletes, like weight lifters, the third kind of sport drink, hypotonic, should be used. Hypotonic sports drinks quickly replace fluids lost by sweating. This kind of sport drink is suitable for athletes who need fluid without the boost of carbohydrates. Hypotonic drinks should be consumed during and after the exercise (Women's fitness, 2010). For non-athletes, sports drinks are not needed, and should not be consumed at high levels on a regular basis.

To be dehydrated means to not have enough water in your body for your body to function properly (Answers.com, 2008). If a person is dehydrated, they usually tell because they should have symptoms such as thirst, loss of appetite, dry skin, cloudy urine, dry mouth, fatigue or weakness and head rushes or headaches. The most dangerous result of dehydration is death. Other symptoms of dehydration are muscle spasms, vomiting, shriveled skin, dim vision, confusion, difficulty breathing, unconsciousness and more. Although these other symptoms are less serious, they still can be critical to a person's health (Symptomsofdehydration.com, 2010).

Personally, I have been dehydrated a few times. One of those times was when I was playing at a soccer game and I had forgotten my water bottle, but I played anyway. As I was running, I asked to be taken out of the game because I felt dizzy, nauseous, thirst, and I have a muscle cramp. To prevent this situation, I could have made sure I had an extra water bottle on hand, or I could have asked another player for a drink. The kind of liquids that I normally consume on a regular basis are one or two cups of water, one or two mugs of tea and a cup or so of a mix of water and either an iced tea powder or a pink lemonade powder. I wouldn't change anything really to stay more hydrated, I usually feel hydrated and if I don't, I make sure to drink more water.

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<http://www.symptomsdehydration.com/>