



FOOD AND HEALTH THE POWER OF HYDRATION

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Abstract: Prolonged exercise leads to progressive water and electrolyte loss from the body as sweat is secreted to promote heat loss. The rate of sweating depends on many factors and is increased in proportion to the work rate and the environmental temperature and humidity. Sweat rate is highly variable between individuals, and can exceed 2 l h⁻¹ for prolonged periods. Since it is established that dehydration will impair exercise capacity and can pose a risk to health, the intake of fluid during exercise to offset sweat loss is important. Fluid intake is also aimed at providing a source of substrate, usually in the form of carbohydrate. The availability of ingested fluids may be limited by gastric emptying or by intestinal absorption. Gastric emptying of liquids is slowed by the addition of carbohydrate in proportion to the carbohydrate concentration and osmolality of the solution. With increasing glucose concentration, the rate of fluid delivery to the small intestine is decreased, but the rate of glucose delivery is increased. Water absorption in the small intestine is a passive process and is stimulated by the active absorption of glucose and sodium. The optimum fluid for rehydration during exercise depends on many factors, particularly the intensity and duration of the exercise, the environmental conditions, and the individual physiology of the athlete. There is no advantage to fluid intake during exercise of less than 30 min duration. The composition of fluids to be used will depend on the relative needs to replace water and to provide substrate. Where rehydration is a priority the solution should contain some glucose and sodium and should not exceed isotonicity: this will require the glucose concentration to be low (20-309 g l⁻¹) or the substitution of glucose polymers, and the sodium content to be high (perhaps as much as 60 mmol l⁻¹). Where substrate provision is more important, a more concentrated solution, incorporating large amounts of glucose polymers in concentrations of 150-200 g l⁻¹, is to be preferred. To minimize the limitation imposed by the rate of gastric emptying, the volume of fluid in the stomach should be kept as high as is comfortable by frequent ingestion of small amounts of fluid. Addition of sodium, and perhaps also of potassium, may be important for rehydration after exercise

Introduction:

One of the most critical components of an individual's fitness is actually drinking enough water. We tend to neglect our own bodies by forgetting to drink water. Fact is that our body is made up of approximately 70% water and our muscles, lungs, and brain all are composed of a lot of water. Losing just 2% of that water causes dehydration and our bodies work less efficiently. Water performs many functions for our body from body temperature regulation to nutrient uptake and the removal of toxins. For people who are serious about getting healthy, water intake is just as important as how much rest they get and what types of food they eat. Since the American diet is the number one contributor to acidity in the body, it is important to replenish and detoxify your body by drinking enough quality water. If we increase your water intake, will be able

to see differences in your skin texture, your bodily functions, Our mood, and our energy.



Dehydration

Water intake is essential to healthy living and not drinking enough of it leaves the body dehydrated. Water loss occurs via sweating, urinating, and respiring. In addition to this, if we consume diuretics like coffee or alcohol, your body is forced to expel even more water. It is necessary to replenish this water otherwise we can lose your energy and see the negative

repercussions of dehydration. Symptoms of dehydration can include pain in the muscles and joints, headaches, dry skin, fatigue, lack of coordination, weakness, nausea, confusion, dry mouth, or constipation. Even adding a little water to your diet can change your lifestyle in a major way. Drinking two glasses of water right after brush your teeth can reduce constipation by stimulating peristalsis and can improve your blood circulation. If we drink water on an empty stomach, it is absorbed much faster than if we drank water on a full stomach. These small tips can reduce your chances of dehydration and can prove to be beneficial to your health.

How much added sugar should one have per day?

Most individuals consume more sugar than they realize so it is important to be aware of how much sugar you consume; our body doesn't need added sugar to function properly since you get enough natural sugar from various foods. For healthy adults it is recommended that women have up to 100 calories per day or about 2 tablespoons a day of added sugar and men women have up to 150 calories per day or about 3 tablespoons a day of added sugar.

Diabetics should consult their doctor on the amount and type of added sugar allowed per day.

The Western Diet: Chockfull of Acidity

The reason why our bodies need more water than most other individuals around the world is not just related to weather, but rather diet. Western on average eats a variety of foods that are extremely high in acid and thus Westerns have high rates of food-related disease. The Western diet includes meat (pork, beef, turkey, and chicken), dairy (cheese, milk, and butter), grains (rice and barley), drinks (coffee, tea, soft drinks, fruit juices), and simple carbohydrates (pasta, bread, potatoes), all of which are acidic. Having a large amount of acid in the body and not being able to reduce your body's acidity is the chief cause of certain diseases or symptoms that include: acid reflux, high levels of cholesterol, heart disease, and high levels of fat, arthritis, fibromyalgia, psoriasis, stroke, and many other inflammatory reactions.



What Can Water Do to that Acidity?

First of all, drinking room-temperature before a meal can increase your digestive capacity while at the same time make we eat less. This also serves to decrease the amount of water we drink during your meal, which hinders your nutritive absorption. This is an effective weight loss solution as drinking water will reduce the amount we eat and increase your metabolism. To combat acid, our body relies on fats. As much as we don't like fat because of weight gain, it is one of the components that save us from the negative repercussions of excess acid. If we drink slightly alkaline water, your body releases some of your fat cells and reduces the acidity in your system. In conclusion, drink a lot of water and your body will reduce its acidity and keep us from excess acid buildup, the leading cause of fatigue in athletes!

How Much Water Should We Drink?

This is a question that has many different answers. It all depends on your lifestyle. It matters how much We eat, what we eat, how much we exercise, what we are doing to exercise, what the weather is, and how many toxins We put in your body. **Ideally, drink a glass of water every 1 – 1½ hours. If we are out in the hot sun, drink a glass or two** of water 2 hours before and 2 hours after we exercise. We should drink 5-9 oz. every 20 minutes during the exercise in order to properly refuel your water reservoir. Be mindful about how much water we are drinking because in the end the body can properly detoxify, replenish, and maintain your body's health.

Conclusion:

Water has innumerable benefits and I can only name a few. A proper intake of water maintains your blood volume and keeps the concentration of your blood low, reduces the chances of cardiovascular diseases such as ; heart attacks, strokes, and high blood

pressure. It also flushes the toxins out of your body through sweat and urination, minimizes your chances of getting colon, breast, and bladder cancer, and helps us to lose weight. Water is the masked cure that we all could use and we are the ones that can benefit from being aware, no one else. Stay healthy and drink some water!

References:

- 1) [http://www.ocde.us/Hydration/Documents/Power of Hydration](http://www.ocde.us/Hydration/Documents/Power%20of%20Hydration)
- 2) <http://campaignfortruth.com/Eclub/170402/healingpowerofwater.htm>
- 3) <
<http://nutrition.about.com/od/hydrationwater/a/waterarticle.htm>>
- 4) <<http://buzzle.com/articles/why-is-water-good-for-you.html>>
