



# Developmental Skills

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## Hydration

Most people don't equate water with good nutrition, yet it is second only to oxygen as a substance that is essential to human life. Water comprises 70% of the weight of a healthy adult body. We can live without food for 2-3 months, but only several days without water. Yet most people do not drink enough water to maintain even marginal health.

When the kidneys remove wastes, those wastes must be dissolved in water and transported via water from the body. If there is not enough water, wastes are not effectively removed and kidney damage may occur. Water is essential for digestion and metabolism. Water helps regulate the body temperature through perspiration. Water carries oxygen and nutrients to the cells through the blood stream, which is largely water, and it lubricates the joints. Water is even required for breathing. The lungs must be moist to facilitate the inhalation of oxygen and the exhalation of carbon dioxide. Each day the body can lose 500ml of water by exhaling. Through excretion and perspiration it loses another 3 litres.

When water intake is insufficient to replenish the needs of the body, the body will interpret this deprivation as a need to store water. This compensation will cause fluid retention. Other problems resulting from not drinking enough water are poor muscle tone, small muscle size, decreased digestive and elimination efficiency, increased toxicity in the body, joint and muscle soreness (particularly after exercise) and excess body fat. Remember, lacking adequate water, the body cannot metabolize fat.

An athlete's water intake should be spread over the entire day. If one waits until he or she is very thirsty to drink water, the body is already dehydrated. Your body requires  $\frac{1}{2}$  an ounce of water per pound. If you weigh 160 pounds then you require 80 ounces or ten - 8 ounce glasses of water. For an athletic individual you require  $\frac{2}{3}$  ounce per pound. Athletes should be drinking 2-3 glasses of water 2 hours before any game, and more just before the game, if it can be tolerated.

Can juice be substituted for water? The answer is no. Unfortunately, fruit juice, particularly apple juice, has as much sugar as soda (14%). A litre of juice has as much as 25 teaspoons of sugar, and one of the sugars - sorbitol - is particularly hard to digest. If you drink enough, you can experience juice indigestion something that is more common with the popularity of juiced based drinks, especially with teenagers. Juice should be limited to one glass a day. Some juice is fine but the extra juice vitamins come with a lot of sugar that is hard to digest. What about unsweetened juice? Unsweetened juice actually has more sugar than the sweetened variety. Unsweetened juice is made from higher quality fruit with a lot of natural fructose and sorbitol. Manufacturers add sugar to their lower price juice to give it the sweetness of the natural stuff. Most juice is made from windfall fruits. Fruits that have fallen to the ground and that are usually bruised and moldy (sorry). Bottom line, nutritionists recommend we eat the whole fruit rather than relying on juice. The sugar eaten as part of an apple is released more slowly and the body absorbs it more easily.

Best advice - Drink Water or scientifically researched Sports Drinks!!!!