

WATER

WHAT IS IT???

Water is the **MOST IMPORTANT** nutrient for the human body. It composes approximately 70% of an average person's body weight and can fluctuate between 45% and 75% (Dunford and Doyle 2008).

- Many variables affect hydration needs and status; thus proper timing and implementation of different hydration and rehydration strategies throughout the training year are important in order to fine-tune individual fluid prescriptions.
- Normal hydration is essential for athletic performance and normal cardiovascular and thermoregulatory functions.
- Resistance-trained athletes should be encouraged to emphasize good hydration techniques throughout the day in an effort to remain as hydrated as possible before and after a training session.

HOW MUCH DO I NEED???

GENERAL HYDRATION RECOMMENDATIONS FOR ATHLETES:

- At least 4 hours before exercise, athletes need to drink approximately 5 to 7 ml fluid per kilogram body weight and approximately 3 to 5 ml per kilogram body weight 2 hours beforehand if they are not urinating or if the urine is dark (Sawka et al. 2007).
- Athletes should consume between 3 and 8 ounces (90 and 240 ml) of a 6% to 8% carbohydrate– electrolyte beverage every 10 to 20 minutes during exercise lasting longer than 60 to 90 minutes (Sawka et al. 2007; Jeukendrup, Jentjens, and Moseley 2005).
- Athletes should consume 20 to 24 ounces (600 to 720 ml) of fluid for every pound of body weight lost after training. Plain water should be used only after exercise when it is combined with foods that contain sodium (Dunford 2006).

WHY IS WATER SO IMPORTANT??

- Dehydration greater than 2% of body weight can impair athletic performance. Dehydration also increases the risk of heat illness.
- Being hydrated helps prevent cramping and heatstroke
- Proper hydration helps you digest food better

*****DRINKING FLUIDS RIGHT BEFORE PRACTICE IS
NOT ENOUGH!!!*****

Hydrate as soon as you wake up in the morning. Think about it, you haven't had any fluids in 8-10 hours. Drink water throughout the day. Carry a water bottle with you and **CHUG** it a few times during the day.

BOTTOM LINE: Base your water intake on your climate, sweat rates, and your activity levels. On non-training days, it appears that at least ½ gallon of water is adequate. On training days athletes require around a gallon or more water per day to stay adequately hydrated.

It can take 24 hours or longer to bring a dehydrated athlete back to a well-hydrated state. Waiting until just before practice or competition to bring an athlete to a well-hydrated state or simply failing to take any steps to make certain the athlete is in an optimally hydrated state will doom that athlete to having a poor practice or competition outcome.

DID I DRINK ENOUGH???

Athletes can do two easy things to assess their hydration status. First, they should pay attention to the frequency of urination, urine color, and quantity. Urine should be pale yellow and plentiful (though consuming B vitamins in the form of a B complex, multivitamin, or functional food can make urine brighter and darker). Athletes should also get into the habit of weighing themselves before and after each training session. If they lose 2% of their body weight from before to after practice, they need to do a better job hydrating before and during training. For each pound lost, they should consume 20 to 24 ounces (600 to 720 ml) of fluid, preferably in the form of a sport drink or a beverage with added sodium to help maintain blood sodium levels.



**IF YOU FEEL THIRSTY, THEN YOU ARE ALREADY
DEHYDRATED!!!**

DEHYDRATION

Drink Up!

Many people are **CHRONICALLY** dehydrated. Proper hydration is one piece of the high performance diet that many athletes are missing. Increasing the consumption of water can enhance metabolism of fat. The kidneys have an important role in filtering out toxins, if dehydrated they can't work as effectively and they pass some of the work to the liver. The liver has an important role in the metabolism of fat, so if the liver is working on filtering toxins it can't metabolize fat as well.

By definition, dehydration means the amount of body water is below optimal. It is important for athletes to recognize the signs of dehydration.

*****Common risks for dehydration include the following:**

- Vomiting
- Diarrhea
- Inadequate fluid replacement
- Induced high sweat rates (as in saunas)
- Laxatives
- Diuretics (and substances with a diuretic effect)

*****Dehydration can lead to heat illness, which impacts physical performance. Signs of heat illness are:**

- Headache, dizziness
- Nausea, vomiting
- Weakness, reduced performance
- Irritability
- Irrational behavior
- Inability to concentrate
- Fatigue
- Muscle Cramps
- Confusion/ disorientation

HEAT CRAMPS

At the first sign of involuntary muscle twitching or mild muscle cramping, athletes should consume 16 ounces of a sports drink that has been supplemented with a teaspoon of table salt. This should then be followed by a steady intake of sodium-supplemented sports drinks for the remainder of the exercise session.

DRINKS TO AVOID:

- Carbonated drinks: Coke, Pepsi, DR. Pepper, Diet drinks, Sprite, Mountain Dew, etc...
- Caffeine/Energy Drinks: Monster, Red Bull, NOS, etc...
- Teas with caffeine
- Sports drinks unless after training or practice in **MODERATION!!!** – high in sugar
- Fruit Drinks – high in sugar
- Coffee



SAINTS FOOTBALL PERFORMANCE

*****Athletes should learn to monitor urine output for volume and color. Both low urine output and dark urine color are signs of dehydration that may precede the sensation of thirst. *****

Dehydration Urine Color Chart

The following Dehydration Urine Color Chart will help you use your urine color as an indicator of your level of dehydration and what actions you should take to help return your body back to a normal level of hydration.



Doing ok. You're probably well hydrated.
Drink water as normal.



You're just fine. You could stand to drink a little water now, maybe a small glass of water.



Drink about 1/2 bottle of water (1/4 liter) within the hour, or drink a whole bottle (1/2 liter) of water if you're outside and/or sweating.



Drink about 1/2 bottle of water (1/4 liter) right now, or drink a whole bottle (1/2 liter) of water if you're outside and/or sweating.



Drink 2 bottles of water right now (1 liter). If your urine is darker than this and/or red or brown, then dehydration may not be your problem. See a doctor.

For more information visit www.urinecolors.com