

HEAT STRESS Hydration

Drinking enough fluids is one of the most important things you can do to prevent heat illness. Water is generally sufficient for hydration.

Urine Color Test

WELL
HYDRATED

HYDRATED

DEHYDRATED
Drink water!

SEVERELY DEHYDRATED
Drink water immediately!

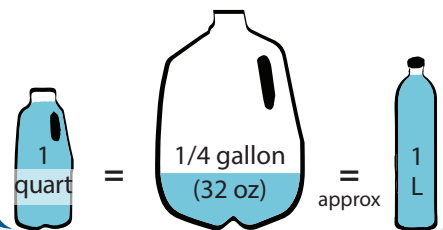
Hydrate *Before* Work

- Being hydrated when you start work makes it easier to stay hydrated through the day.
- If you are dehydrated when you start work, you may not be able to drink enough to catch up with your body's need for water.

Hydrate *During* Work

- Drink before feeling thirsty. **By the time you feel thirsty, you are already behind in fluid replacement.** Dehydration is a primary contributor to heat exhaustion.
- Your work performance may suffer when you are dehydrated, even if you don't notice.
- When working in the heat, drink 1 cup (8 ounces) of water every 15–20 minutes.
 - This translates to $\frac{3}{4}$ –1 quart (24–32 ounces) per hour.
 - Drinking at shorter intervals is more effective than drinking large amounts infrequently.
- Do not drink more than 48 oz (1½ quarts) per hour! Drinking too much water or other fluids (sports drinks, energy drinks, etc.) can cause a medical emergency because the concentration of salt in the blood becomes too low.

How much water is that?



Hydrate *After* Work

- Most people need several hours to drink enough fluids to replace what they have lost through sweat. The sooner you get started, the less strain you place on your body from dehydration.
- Hydrating after work is even more important if you work in the heat on a regular basis. Chronic dehydration increases the risk for a number of medical conditions, such as kidney stones.

What to Drink

Water

Water will almost always maintain hydration during work in the heat, as long as you eat regular meals to replace salt lost in sweat.

Photo by ©Thinkstock

What to Avoid

Energy Drinks

- Some energy drinks contain much more caffeine than standard servings of coffee, tea, or soft drinks.
- Drinking several energy drinks per day can raise your caffeine levels enough to affect your heart. High caffeine levels can be risky when added to the strain placed on your body by heat.
- Many energy drinks contain as much or more sugar as soft drinks, which adds hundreds of extra calories to your diet.

Alcohol

- Alcohol can cause dehydration.
- Drinking alcohol within 24 hours of working in the heat can increase the risk of heat illness.

What about salt tablets?

NIOSH does not recommend taking salt tablets. In most cases, salt can be replaced by eating normal meals and snacks throughout the day. Do not skip meals.

What about caffeine?

The amount of caffeine in tea, coffee, and soft drinks probably will not have an effect on overall hydration.

Do I need sports drinks?

In general, eating regular meals with adequate water intake is sufficient to maintain water and electrolyte balance.

For prolonged sweating lasting several hours, sports drinks with balanced electrolytes are another option to replace salt lost in sweat.

Heavy consumption of sports drinks will add unnecessary calories to your diet due to the added sugar.

HEAT EXHAUSTION

OR

HEAT STROKE

Faint or dizzy



Throbbing headache, confusion

Excessive sweating



No sweating



Cool, pale, clammy skin

Body temperature above 103°
Red, hot, dry skin



Nausea or vomiting



Nausea or vomiting

Rapid, weak pulse



Rapid, strong pulse



Muscle cramps



May lose consciousness



- Get to a cooler, air conditioned place
- Drink water if fully conscious
- Take a cool shower or use cold compresses

CALL 9-1-1

- Move person to cooler place
- Cool using cool cloths or bath
- Do not give anything to drink