

Worksite: \_\_\_\_\_ Instructor: \_\_\_\_\_ Date/Time: \_\_\_\_\_

## Topic C470: Hydration (A)

**Introduction:** Dehydration occurs when the body's output of water is greater than the body's intake. Excessive heat, sweating, and decreased water intake can lead to dehydration. Following are guidelines for the prevention of dehydration.

**Mild Dehydration:** Drinking plain water may be all that is needed. However, when both water and electrolyte losses have occurred, salt (especially sodium and potassium), must also be replaced. Flavored commercial drinks, with electrolytes, have been formulated to replace the salts lost during vigorous work.

- To maintain water balance, workers who are not excessively sweating, should drink at least 1 quart of water.
- To protect against dehydration, drink 1 ½ to 2 quarts of water while working on the work site.
- Profuse sweating can dramatically increase the amount of water lost during the day.
- Always have plenty of cool, potable water available at each work site.
- Make sure a "Drinking Water" label is stamped on the cooler complying with OSHA regulations.
- Use plastic water coolers that have pressure fit lids to prevent mold and mildew.
- Use galvanized steel water coolers when working in harsh and inclement conditions.
- Attach cup dispensers to the side of the coolers to allow workers safe drinking vessels.
- Make sure water is available when working on elevated heights
- When operating heavy machinery, keep water readily available.
- Change the water supply frequently when it is kept in portable coolers.
- Take cool-down breaks when working in extreme heat.
- Encourage fellow workers to drink water while working together.
- Always do the heaviest work during the coolest part of the day.
- Damage to the kidneys, liver, and brain can occur from dehydration.
- Consult a doctor about safely replacing fluids if you have heart or kidney problems.
- Know the signs and symptoms of dehydration.

Drink 1 ½ to 2 quarts of water while working on the work site.

**Be Aware:** Knowing the signs of heat-related illnesses can help you recognize them quickly and respond immediately. Signs of heat exhaustion can be high pulse rates, extreme sweating, a pale face, and insecure walking. Symptoms may be weakness, fatigue, blurry vision and dizziness. In the event of heat stroke, the signs will be a red face, disorientation, erratic behavior, and even collapse. Symptoms of heat stroke are chills, restlessness, irritability and shivering. Should you see any of these signs or symptoms surface in an employer, lay them down and loosen their clothing. Give them plenty of water to drink and contact a paramedic.

**Over-hydration:** Over-hydration occurs when the body's intake of water is greater than its output. Excess water in the body causes the sodium in the bloodstream to become over diluted.

- Limit intake of water when suffering from heart, kidney, or liver problems.
- Do not drink more than two gallons of water in a single work day.
- Symptoms from over-hydration can be mental confusion, seizures, and coma.
- Contact a doctor to prescribe a diuretic to increase excretion of excess water.

**Heat Stress:** In heat stress environments, the body cools itself by perspiring. When this occurs, much more is lost than water. Magnesium, potassium, sodium, and calcium are depleted. These electrolytes are crucial to maintaining healthy muscles and a productive energy level. Specific (electrolyte) drinks need to be available for workers when heat stress indicators are present.

**Conclusion:** Hydration is essential and must be consciously maintained during the hot season. Use these guidelines to stay healthy.

**Employee Attendance:** (Names or signatures of personnel who are attending this meeting)

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*These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*