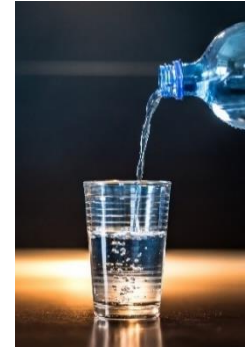


INTRODUCTION

When the temperature rises in the spring and summer months, being properly hydrated becomes very important as being dehydrated can contribute to you developing heat illness. In this lesson we will cover what it means to be hydrated, what dehydration is, the common symptoms associated with dehydration, and recommendations for water intake, drinks you should avoid when working in hot environments, and what to do should you suspect someone of being dehydrated.



WHAT IT MEANS TO BE HYDRATED

Common terms that many people might hear today are “be hydrated” or “being hydrated” or “staying hydrated”, but what do these actually mean? In general, “being hydrated” or “staying hydrated” means that your body has enough fluids and electrolytes to function properly.

WHAT DEHYDRATION IS

Dehydration is when your body uses or loses more fluid than what is taken in and can cause your body to not function normally. This can occur for a variety of reasons including, but may not be limited to:

- Excessive sweating
- Urinating more often
 - This can be caused by using certain medications such as diuretics.
- Fever
- Dairrhea
- Vomiting
- Bleeding
- You get busy and forget to drink
- You don't feel thirsty
- You are sick and don't feel like drinking



Dehydration can be mild or moderate, or in more serious cases severe. The symptoms that you experience or display can be indicators of how dehydrated you are.

While dehydration can happen to anyone, there are some factors that can increase a person's risk of becoming dehydrated. This includes:

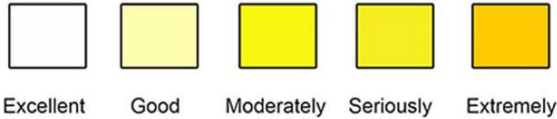
- Being older
- Being sick
- Have a chronic disease
 - Such as diabetes or being on certain medications
- Physically active individuals

COMMON SYMPTOMS ASSOICATED WITH DEHYDRATION

Common symptoms associated with minor to moderate dehydration can include:

- Feeling thirsty
- A dry or sticky mouth
- Urinating less frequently
 - This is commonly caused by the body trying to conserve fluid.

- Darker urine
 - The color of your urine can be a good indicator of how hydrated you are. Lighter color urine usually indicates that you are hydrated, whereas darker color urine can indicate how dehydrated you are because it is more concentrated.



- Dry and/or cool skin
- Headaches
- Muscle cramps

Additionally, common symptoms of severe dehydration can include:

- Very dark urine
- Not urinating
- Dizziness
- Rapid heartbeat
- Rapid breathing
- Sunken eyes
- Confusion
- Irritability
- Lack of energy
- Feeling sleepy
- Fainting

RECOMMENDATIONS FOR WATER INTAKE

For employees who are working in the heat, The National Institute for Occupational Safety and Health (NIOSH) recommends that employees who are working in the heat for less than 2 hours and are involved in moderate work activities drink 1 cup (i.e., 8 oz) of water every 15-20 minutes. This translates to around 3/4-1 quart (24-32 oz) per hour.

Per the same recommendation, your fluid intake should not exceed 6 cups per hour. Exceeding more than 1 1/2 quarts (i.e., 48 oz) per hour can cause the salt concentration of your blood to become too low, which may lead to a medical emergency.



DRINKS YOU SHOULD AVOID WHEN WORKING IN HOT ENVIRONMENTS

In addition to your water intake, the National Institute of Occupational Safety and Health recommends that employees avoid certain fluids as they can either contribute to dehydration or have other effects on the body that could contribute to the individual experiencing heat illness. These drinks include:

- Energy drinks
- Alcohol

Some health professionals may also recommend against other drinks such as soda or juice. If you have questions about fluids and proper hydration, please speak with your medical provider.



HEAT ILLNESS PREVENTION: HYDRATION

WHAT TO DO IF YOU SUSPECT SOMEONE IS DEHYDRATED

Minor or Moderate Symptoms

If you are or see someone displaying minor signs of dehydration, you should do the following:

- Drink some water or an electrolyte drink

If you are or see someone displaying moderate signs of dehydration, you should do the following:

- Have the person sit in a shaded or cool area.
- Have the person remove any excess clothing (such as PPE and hats) or loosen tight clothing if possible.
- Have the person drink some water or an electrolyte drink.
- Alert your supervisor.
- If there is cramping, have the person take a rest.
 - Depending on the individual, they may also want to stretch and/or massage the muscles that are affected.
- If necessary, have the person seek medical assistance.

Severe Symptoms

If you are or see someone displaying severe signs of dehydration, you should do the following:

- Alert your supervisor.
- Have someone call for emergency medical services.
 - If dispatch provides instructions on how to help the person, follow the instructions as they are given.
- If the person can be moved safely, take them to a shaded or cool area.
- Help them remove any excess clothing (such as PPE and hats) or loosen clothing.
- Help the body cool down by applying icepacks or wet cloth to critical areas of the body such as the wrist, collarbone, armpits, inner thighs, neck, and face.
- If the person is conscious, give the person sips of water or an electrolyte drink.
 - Do NOT give them huge amounts of water as this could induce vomiting, which would lead to further fluid loss.

CONCLUSION

To conclude, being properly hydrated when working in temperatures at or above 80 degrees Fahrenheit can help minimize your chances of becoming dehydrated and experiencing a medical condition related to heat illness. However, it can be very easy to become dehydrated, so you should remember to drink plenty of fluids during the day and take some rest periods as being active can make you sweat. If you have questions about water supplies for your company, please speak with your supervisor.

