



# Safety Talks

## Summer Heat 1

### Tips

#### Reminder:

There are five (5) types of heat illnesses. They are:

- ◆ Heat rash
- ◆ Heat syncope
- ◆ Heat cramps
- ◆ Heat exhaustion
- ◆ Heat stroke

### IN THIS ISSUE

- ⇒ **Heat Exhaustion:**  
Signs and Symptoms
- ⇒ **Heat Stroke:**  
Signs and Symptoms



The summer months are upon us, and most of you will be working in hot environments. It is important that you stay hydrated and safe from the effects of the heat. According to the Center for Disease Control (CDC) an average of 658 people die in the United States from heat-related illness each year. While not all of those are occupationally related, many of the fatalities occur in the construction industry. For these reasons, we are instituting a heat illness awareness and prevention program.

As part of this series on heat awareness, you will receive Safety Talks directed at important aspects of heat illness prevention. We want to empower you with the knowledge and tools to beat the heat.

Getting overheated can lead to two medical conditions: Heat Exhaustion, which may respond to first aid or may require emergency medical care; and Heat Stroke, which requires emergency medical care and often hospitalization. Heat Exhaustion responds to hydration and cooling off, but can progress to Heat Stroke. Staying cool requires proper hydration, frequent rest breaks during hot weather, proper nutrition, and prompt action at the first signs of heat illness. There are five (5) types of heat illnesses. They are:

- Heat Rash
- Heat Syncope
- Heat Cramps
- Heat Exhaustion
- Heat Stroke

This is the first issue of our program, and your objective is to learn the signs and symptoms of heat illnesses so that you can stay healthy and avoid being a victim of the heat. Our goal is for you to work safely so you can be there for your family.

Heat Stroke is the most severe form of heat-related illness; as it develops, your organs can shut down - particularly your kidneys and liver. Your muscles can break down, your heart can go into dangerous rhythms, and your lungs can swell. Seizures and coma, or even shock and death, can occur. Knowing the signs and symptoms can help you avoid these preventable heat-related illnesses.

### **Heat Exhaustion Signs**



Fever  
Flushed Skin  
Fast Heart Rate  
Vomiting  
Anxiety or Fear  
Low Blood Pressure  
Confusion

### **Heat Stroke Signs**

High Fever (above 104° F)  
Lack of Sweating  
Abnormal Heart Rhythms  
Difficulty Breathing  
Irritable Mood  
Shock  
Confusion, Seizures, Coma



### **Heat Exhaustion Symptoms**

Mild Muscle Cramping



Muscle Weakness  
Dizziness  
Fatigue  
Not Feeling Well  
Headache  
Nausea  
Loss of Appetite  
Blurred Vision

### **Heat Stroke Symptoms**

Moderate to Severe Muscle Cramping



### **What to Do if Employee is Showing Signs or Symptoms?**

- ⇒ Call 911 immediately
- ⇒ Notify the employee's supervisor
- ⇒ Move employee to a cool, shaded area
- ⇒ Elevate the employee's feet
- ⇒ Cool the employee with water and/or fanning
- ⇒ Monitor condition until EMS arrives

DRINK WATER OFTEN



REST IN THE SHADE



REPORT HEAT SYMPTOMS EARLY

Contact your supervisor and/or the Safety Department with any questions you may have.



# Safety Talks

## Summer Heat 2

### Tips

#### Reminder:

During the hot summer months, a construction worker should drink cool water every 20 minutes.

### IN THIS ISSUE

- ⇒ **Fluid Intake:**
  - What to Drink
  - What to Avoid
  - When to Hydrate
  - Adequate Rest Breaks



In this issue, we are going to cover proper fluid intake. When you get thirsty, water is the ideal fluid for you to drink. Don't let yourself get too busy and forget to drink water. When you go to the bathroom, pay attention to the color of your urine. If darker than usual or if you are not going as often as usual, you need to drink water.

What you choose to drink matters! It is okay to drink sports drinks; but soda, coffee, and energy drinks are *dangerous* when in the heat. All of these contain high levels of caffeine, which causes you to lose water from the body. Drinking these liquids while working in hot environments is not safe.

You should always start your shift fully hydrated. During the day, drink cool water every 20 minutes. An adult male should drink approximately one and a half gallons of water per day while working in the heat. If you sweat excessively, you must drink large amounts of water, whether you feel thirsty or not. By the time thirst is felt, you are already dehydrated.

Regular rest breaks are critical in hot weather. The hotter the weather, the more frequent the rest breaks should be. Rest breaks allow the body to cool and should be taken in shaded areas. Regular breaks are especially important when you first begin working in hot weather to allow your body to become acclimated to the work. Drinking enough cool water while working in the heat can help you work safely and arrive home safely to your family.

What one major substance from the night before can affect your hydration the next day at work? Alcohol. You can think of the water-wasting effects of alcohol like those of caffeine. Alcohol causes the kidneys to lose water abnormally fast through a chemical event. One of the worst things you can do in a hot environment is to come to work dehydrated.

***Did you know?***

*Sometimes when you are dehydrated, you may feel hungry. This is really the brain trying to tell you that you are thirsty. If you have recently eaten and/or it is not a meal time, then recognize this hunger as thirst and make sure to drink water.*

**WHAT TO DO**

Drink water while you work in heat  
Drink water even if you are not thirsty  
Consider drinking water if you feel hungry  
Know the symptoms  
Take regular rest breaks

**WHAT TO AVOID**

Caffeine  
Alcohol  
Certain over-the-counter medications  
(decongestants, antihistamines)

**If you are experiencing symptoms:**

STOP work

Talk to your supervisor or coworker

Cool down and hydrate

(It is often too late to react when cramps have already developed!)

***Did you know?***

*Even if you don't feel thirsty, you need to drink water regularly on a hot day.*



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**DRINK WATER OFTEN****REST IN THE SHADE****REPORT HEAT SYMPTOMS EARLY**

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Contact your supervisor and/or the Safety Department with any questions you may have.



# Safety Talks

## Summer Heat 3

### Tips

#### Reminder:

Proper nutrition helps you stay hydrated when working in the heat and sweating.

### IN THIS ISSUE

- ⇒ **Nutrition:**
  - Effect of Diet
  - What to Limit
  - What to Increase



In this issue, we are going to cover proper nutrition. It is always recommended that you eat well-balanced meals at regular intervals.

Certain foods with high carbohydrates tend to make people feel exhausted and sluggish in the heat, like potatoes and white bread.

Fueling up on proper foods can help the situation. Eat plenty of fruits and vegetables that have a high water content, such as watermelon and cucumber. This will help you stay hydrated while you are working in the heat and sweating.

Your body needs to digest food, so always drink water when you eat.

Your body can survive for many weeks without eating, but you cannot live more than a few days without water.

You lose salt through sweating when you are working in a hot environment. Your body needs a certain amount of salt to work properly, but we do not recommend the routine use of salt tablets. Salt tablets cause irritation of your stomach and can lead to nausea and vomiting. In fact, sports drinks with salts are unnecessary as the typical American has enough salt in his or her diet already.

Making healthy food choices, like fruits and vegetables and lean meats, is always a good idea. If you have medical conditions like High Blood Pressure or Diabetes, then follow the special diets your doctor has recommended.

The following is an overview of certain foods you should try to limit in your diet and those you should increase for overall better health and decreased risk for heat illness.

### **Foods to Limit**



#### **Greasy or Fried:**

French Fries

Chicken Fried Steak

Potato Chips



#### **Refined Sugars:**

Candy Bar

Ice Cream

Cakes

Pies



### **Foods to Increase**



Fruits

Vegetables

Whole Grains

Lean Meats



### **Suggestions for Healthy Snacks:**

Nuts

Carrot Sticks

Apple with Peanut Butter

Granola Bar



#### ***Did you know?***

Fatty foods contain cholesterol, especially foods with animal fats like red meat. Having high cholesterol puts you at risk for heart disease, the leading cause of death in the United States. About 1 of every 6 adult Americans has high cholesterol.

According to the CDC, 33% of American adults are obese, and obesity-related deaths have climbed to more than 300,000 a year.

DRINK WATER OFTEN



REST IN THE SHADE



REPORT HEAT SYMPTOMS EARLY

Contact your supervisor and/or the Safety Department with any questions you may have.





# Safety Talks

Summer Heat 4

## Tips

### Reminder:

Older workers are at greater risk since their bodies do not adjust to changes in external temperature as well as when they were young.

## IN THIS ISSUE

- ⇒ **Lifestyle & Fitness:**  
Risk Factors
- ⇒ **Medical Conditions:**  
Risk Factors

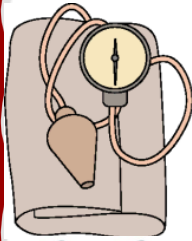


In this issue, we are going to discuss how your lifestyle and overall health can affect your risk for developing a heat-related illness. Your level of physical fitness is very important, and being in good aerobic condition helps reduce your risk when working in the heat. If you are out of shape, you are at higher risk. It is recommend that you get 40 minutes of moderate-intensity aerobic activity at least 4 days per week (i.e. fast walking, riding a bike, pushing a lawnmower). Check with your doctor before starting an exercise program.

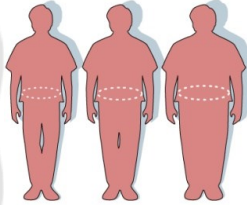
If you have certain medical conditions, you may be at greater risk for getting overheated. Some of you may have medical conditions that you don't know about. Uncontrolled high blood pressure and diabetes are two of the most common conditions that can increase your risk for heat-related illness.

Older workers are at greater risk since their bodies do not adjust to changes in external temperature as well as when they were young. In the last issue, we talked about eating a healthy diet and avoiding caffeine and alcohol. Those who abuse alcohol are at high risk of getting overheated.

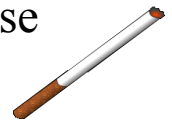
Leading a healthy lifestyle and controlling your medical problems with the help of your family and your doctor can help you work safely and beat the heat. Your family wants you to be healthy.

**RISK FACTORS FOR HEAT-RELATED ILLNESSES**

Poor Fitness  
High Blood Pressure  
Diabetes  
Obesity  
Heart Disease  
Old Age



Alcohol Abuse  
Cold, Flu  
Sunburn  
Vomiting  
Diarrhea  
Nicotine Product Use



If you think you may have any of these conditions or are experiencing these symptoms, talk to your doctor about your risk for heat illness.

Walking 4 miles a day, or 10,000 steps, helps maintain your health. According to the Calories Control Council, you can burn over 400 calories by walking 4 miles a day in 60 minutes. To burn more calories, it is better to exercise for a longer period of time as opposed to exercising faster or harder.



**STOPPING FOR WATER  
KEEPS YOU GOING.**

**DID YOU KNOW?**

According to the CDC, about one of three US adults (31.3%), has high blood pressure. 25.6 million people over the age of 20 in the United States (11.3%) have diabetes.

DRINK WATER OFTEN



REST IN THE SHADE



REPORT HEAT SYMPTOMS EARLY

Contact your supervisor and/or the Safety Department with any questions you may have.





# Safety Talks

Summer Heat 5

## Tips

### Reminder:

Taking medications, whether prescription or over-the-counter, can increase your risk for heat illness

## IN THIS ISSUE

- ⇒ Over-the-Counter Medications
- ⇒ Nutritional Supplements
- ⇒ Prescription Medications



In our last issue, we talked about physical fitness and how your general health can affect your risk for developing a heat-related illness. Taking medications, whether prescription or over-the-counter, can increase your risk as well. In this issue, we will cover the most common prescription and over-the-counter medication types that predispose you to developing a heat illness.

Common over-the-counter medicines include cold and allergy medicines like antihistamines and decongestants. Energy tablets often contain caffeine and other herbs that can be dangerous in the heat. Prescribed medicines from your doctor can unfortunately place you at risk for getting overheated. These include blood pressure medicines such as diuretics, beta-blockers, and calcium channel blockers. Always ask your doctor what kind of medicine you are being prescribed and what is in it! Many new blood pressure pills are combinations that include the diuretic hydrochlorothiazide, and these may be labeled with "HCT" or with "HCTZ". Recognize that this drug causes you to lose water and puts you at risk for getting overheated. Many drugs prescribed to treat mental health conditions are also dangerous for you when you are in the heat.

Knowing your medications with the help of your doctor and your family can help you work safely and beat the heat.

Here are some medications which may put you at greater risk for heat illnesses.

### **Over-the-Counter Medications**



Allergy, Cough, and Cold medicines containing:

- ◇ antihistamines - Benadryl (diphenhydramine)
- ◇ decongestants - Sudafed (pseudoephedrine)

### **Nutritional Supplements**

Energy tablets often contain caffeine and other substances that are dangerous in the heat.

### **Prescription Medications**

**(Consult with your doctor if you take any of these!)**

#### **Blood Pressure medicines**

- ◇ Diuretics (a.k.a. "Water Pills") - Most common form is listed as HCTZ (or HCT) on your pill bottle (Hydrochlorothiazide)
- ◇ Beta blockers
- ◇ Calcium Channel blockers

#### **Mental Health medicines (Depression, Anxiety, Psychosis, Attention Deficit Disorder)**

- ◇ Benzodiazepines: Klonopin, Valium, Xanax, Ativan
- ◇ Neuroleptics: Risperdal, Seroquel, Zyprexa, Geodon
- ◇ Tricyclics: Elavil (amitriptyline)
- ◇ Stimulants: Adderall, Vyvanse

#### **Seizure medicines**

- ◇ Phenobarbital
- ◇ Benzodiazepines (as above)

#### **Thyroid medicines**

#### **Laxatives**

#### **Irritable Bladder and Irritable Bowel medicines**

#### **Asthma and Emphysema Inhalers - Atrovent, Combivent, Spiriva**

#### **Diet Pills - Phentermine**



### **BE INFORMED!**

Always check with your doctor about the contents and effects of your medications.

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DRINK WATER OFTEN



REST IN THE SHADE



REPORT HEAT SYMPTOMS EARLY

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Contact your supervisor and/or the Safety Department with any questions you may have.



# Safety Talks

Summer Heat 6

## Tips

### Reminder:

It is recommended to apply sunscreen with an SPF of 30 or greater to your exposed skin to help prevent heat illness during the summer months.

## IN THIS ISSUE

- ⇒ **Sun Risks:**
  - UV Radiation
  - Skin Cancer
- ⇒ **Protection from Sun:**
  - Sunscreen



In our last issue, we talked about how certain medications may affect your risk for developing a heat-related illness. In this issue, we will address some special circumstances that are important to consider when working in the heat.

It is very important to protect yourself from the sun's ultraviolet (UV) radiation. In addition to wearing clothing that covers most of your skin, it is recommended that you apply sunscreen with an SPF of 30 or greater to your exposed skin. Focus on your face, neck and hands, as they are some of the most common areas to develop skin cancer. Remember to reapply sunscreen as the day wears on.

When you see your doctor each year for your physical, have him check your skin for signs of skin cancer. If you notice a mole that is changing in color or size or has begun to be painful, bleed, or itch, then you need to have your skin checked by a doctor. The three most common types of skin cancer are melanoma, basal cell carcinoma, and squamous cell carcinoma. According to the American Academy of Family Physicians (AAFP), one in six Americans develops skin cancer at some point.

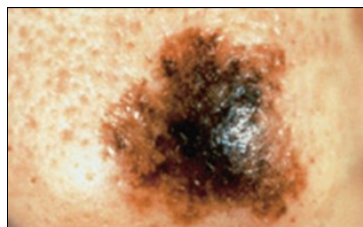
Knowing your risks for heat-related illness will help you work safely and beat the heat. Work safely for yourself and your family.

When you check your skin, look for the following:

- ⇒ Any rough or red, bumpy area on your skin that's bigger than the head of a match and doesn't clear up
- ⇒ Any area of skin that stays irritated or inflamed (red and itchy)
- ⇒ Any ulcer (sore) that doesn't heal in two weeks
- ⇒ Any area that keeps cracking or bleeding
- ⇒ Any colored spot that's getting bigger
- ⇒ Any brown or black spot that's wider than 1/4 inch (the size of a pencil eraser) or is changing color or size

Although most skin cancer is not dark, dark spots must be watched very carefully because they may become cancerous. Dark moles can change and become more dangerous. Watch dark moles for any of the following signs:

- ⇒ Growing to more than 1/4 inch across
- ⇒ Becoming asymmetrical (uneven) in shape
- ⇒ Developing an irregular edge
- ⇒ Developing an uneven color



### **Melanoma**

- ◇ Can often be mistaken for a mole
- ◇ Can appear anywhere on the body



### **Basal Cell Carcinoma**

- ◇ Most common form of skin cancer
- ◇ Usually found on head and neck regions



### **Squamous Cell Carcinoma**

- ◇ Second most common form of skin cancer
- ◇ Usually found on sun-exposed skin

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DRINK WATER OFTEN



REST IN THE SHADE



REPORT HEAT SYMPTOMS EARLY

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Contact your supervisor and/or the Safety Department with any questions you may have.