



# Working in Hot Conditions

## Meeting Objectives

Understanding the potential hazards of working in hot conditions and to learn to recognize the symptoms and how to take preventive and corrective action in the workplace. The result should be a reduction in illnesses resulting from working in heat.

## Introduction/Overview

Heat, whether it's inside or outside, can be a health hazard. If you don't know when enough becomes too much, you can suffer from some form of heat stress. That can be a momentary problem or something more serious. And it can strike you down at work or at play.

We try to keep conditions from getting unhealthy, but some jobs, such as welding or working in confined spaces, can get pretty hot. And some people are more easily affected by heat than others.

So we're going to review the conditions that can cause heat-related health problems, the symptoms to watch out for, and the actions to take if they strike you, one of your co-workers, or a family member or friend outside the workplace.

## General Hazards

Your body is designed to operate within a fairly narrow temperature range. If your body temperature goes too high, you get sick.

Heat exhaustion is a risk if you're physically active when it's hot. You'll probably get dizzy and sweaty, but it's not likely to be life-threatening.

Heatstroke is much more serious. It is also a hazard when you're physically active in hot conditions. But heatstroke can send your body temperature so high that you become unconscious.

Even worse, too much exposure to these conditions can put so much strain on your heart and blood vessels that you risk heart failure or stroke. The risk is greatest for people who have heart or circulatory problems. Their bodies are least able to take the strain and may not perspire and cool properly.

If you're working outside, you can also be exposed to hazards from too much sun exposure. One hazard is skin cancer—the result of too much sun.

Another problem is sunburn or sunstroke from getting too much sun when you're not used to it.

## Identifying Hazards

If you know the symptoms of heat stress, you can keep those symptoms from getting out of hand. The symptoms that indicate heat stress symptoms can also be symptoms of other health problems. But if it's hot and you're getting a workout, heat stress is probably your prime hazard.

You usually start by feeling hot, uncomfortable, and just not ready to do much. That's not serious, but it's probably a sign you should get out of the heat. First, here are the symptoms that could indicate a serious problem:



- Breathing problems
- Chest pain
- Cramps
- Diarrhea
- Dizziness
- Excessive sweating
- Great weakness
- Headache
- Nausea
- Rapid heartbeat

Even worse are these signs of heatstroke:

- High temperature
- Hot red, dry skin
- Rapid pulse

Assume that any of these symptoms mean a serious problem.

You should also know the signs of skin cancer. See a doctor if you notice a mole or skin spot with these characteristics:

- It seems to be growing.
- One half is different from the other
- The border is irregular
- There are different colors

Now let's talk about what to do.

### **Protection against Hazards**

As with any hazards, the best way to deal with heat hazards is to try to prevent them.

- Build up your exposure to the sun slowly. Try to stay in the shade or inside between 10 am and 3 pm when the sun is strongest.
- Dress for conditions. Lightweight, light-colored loose clothing is the best. Wear a hat with a wide brim if you're out in the sun. Put sunscreen on exposed body parts.
- Drink plenty of fluids. Don't wait until you're thirsty. Your body is sweating out a lot of fluid, and you have to keep replacing it. The best thing to drink is water. Avoid anything with caffeine or alcohol.
- Eat a regular well-balanced diet, but try to stay away from hot or heavy food. Also watch your salt consumption. Some people take salt tablets to replace the salt lost in perspiration when it's hot. But too much salt can be bad for you, so don't take salt tablets without a doctor's recommendation.
- Use sunscreen outside and cover as much of your body with clothing as possible.
- You can get sunburned in cloudy weather. And sun is even more potent when it's reflected off water, concrete, or sand.

### **Safety Procedures**

Take immediate action if it's hot and you feel weak, dizzy, sweaty, or nauseous. Pay attention to cramps and to anyone who tells you that you look pale.

In any and all of those circumstances, get to a cooler area—shade or a cool building. Lie down, loosen your clothing, and put some cool compresses on your skin. Drink fluids.



If you have, or see someone with, heatstroke or sunstroke symptoms, fast action is a must. Get medical help. And get yourself—or any victim—to a cool spot and loosen clothing. It's important to cool the body down quickly. Use cool compresses, water, even a hose for the job. Don't try to give fluids to an unconscious person.

If you get sunburned be sure to rinse or soak with cool water or cold compresses. If you're sunburned but haven't blistered, you can use a mild non-medicated cream. But blisters can be serious; see a doctor.

### Suggested Discussion Questions

- What action should you take for these symptoms?
- What action should you take if you have those symptoms?
- What are some of the problems created by too much exposure to heat?
- What are some things you can do to try to prevent problems when working in hot conditions?
- What are symptoms of heat stress?
- What are the symptoms of heatstroke?
- What should you do about sunburn?
- What symptoms could indicate skin cancer?

### Wrap-Up

You can't always stay out of the heat, but you can stay out of trouble if you take some sensible precautions and know when you're at risk. Use the checklist as a reminder. And keep a copy at home, too. Heat problems are at least likely to crop up when you're working in the yard or playing sports, etc. Forewarned is forearmed.



Sample Handout

*Staying Safe in the Heat Checklist*

**Prevent Problems:**

- Wear lightweight, light-colored, loose clothing.
- Cover as much of your body as possible.
- Wear a broad-brimmed hat in the sun.
- Wear sunscreen in the sun.
- Eat regular, well-balanced meals.
- Avoid hot or heavy food.
- Don't take salt tablets without a doctor's permission.
- Drink lots of fluids, avoiding alcohol or caffeine.
- Build up exposure to sun slowly.
- Try to avoid the sun between 10 a.m. and 3 p.m.
- Be aware that water, concrete, and sand reflect the sun and make it stronger.

**Know heat exhaustion symptoms:**

- Dizziness
- Fatigue
- Nausea
- Headache
- Excess sweating
- Cold, pale, clammy skin
- Great weakness
- Faintness

**Act quickly if heat exhaustion strikes:**

- Get to shade or a cool area
- Lie down
- Loosen clothing
- Apply cool compresses
- Drink fluids

**Know heatstroke symptoms:**

- High body temperature
- Hot red, dry skin
- Rapid pulse
- Unconsciousness

**Act quickly if heatstroke strikes:**

- Call for medical attention
- Get to a cool spot
- Loosen clothing
- Cool down body quickly with compresses, water

**Skin cancer:**

See a doctor if a mole or skin spot has:

- One half different from the other
- Different colors
- An irregular border
- Increased in size

**Sunburn treatment:**

- Rinse or soak with cool water or cold compresses.
- If no blisters, apply mild non-medicated cream.
- If blistered, see a doctor.

