



Minnesota Counties Intergovernmental Trust

A MINI TRAINING SESSION FOR INJURY PREVENTION

Quick Take on Safety

Heat-related Illness Prevention

TRAINING OVERVIEW AND OBJECTIVES

- Overview:** This training discusses methods to identify symptoms related to extreme heat and methods to prevent heat-related illness.
- Purpose:** This training is designed to refresh employees about heat stress and other heat-related illnesses: symptom identification, treatment and prevention.
- Preparation:** Read and become familiar with this Quick Take. *Change as needed to reflect procedures and personnel in your department.*
- Handouts:** Quick Review of Safety: Heat-related Illness Prevention
- Note:** It is important to prepare employees for the heat. In addition to education about the dangers of heat, symptom identification and treatment, workers should be acclimatized to hot weather conditions by gradually increasing the workload or providing breaks that are more frequent. New workers and those returning to a job after time away should build up a tolerance for hot conditions. For more information about ways to reduce heat exposure risk, refer to the “Temperature Extremes” chapter in the MCIT resource, “Public Works Loss Prevention Best Practices Guide” available at MCIT.org/public-works/.

Extreme Heat Hazards

Exposure to heat can lead to the health conditions referred to as heat stress. The most common types of heat stress are heat rash, heat cramps, heat exhaustion and heat stroke.

Heat stroke is particularly serious and can result in death or permanent injury. According to the Bureau of Labor Statistics, exposure to environmental heat led to nearly 40 work-related deaths and nearly 3,000 nonfatal occupational injuries and illnesses involving days away from work in 2015. [*Instructor Prompt: Discuss specific tasks where employees may be subject to heat stress*]

Heat stress can be serious, but with proper preparation and recognition of symptoms, this hazard can be minimized. Your health and safety is important to us; we don't want you to get hurt.

Prevention

- Be aware of dangerous heat index advisories and weather service forecasts and plan ahead.
- Wear comfortable clothing appropriate to both the weather and your work tasks.
- Stay hydrated! Try to drink 16 to 32 ounces of cool water each hour. Avoid highly sugared or caffeinated drinks.
- Take frequent breaks, preferably in a cool or shaded area, particularly if you feel heat discomfort.

- Observe others for signs and symptoms of heat stress and know how to respond or get help.
- [*Instructor prompt:* discuss emergency action plan in the event an employee needs medical attention.]

Common Symptoms and Treatment of Heat Stress

[*Instructor prompt:* Have employees follow along on their handouts as you discuss the symptoms and treatment of the following heat-related illnesses]

HEAT STRESS	SYMPTOMS	TREATMENT
Heat Rash	Red cluster of pimples or small blisters, typically located on neck, upper chest, groin, under breasts or in elbow creases	<ul style="list-style-type: none"> • Keep rash dry. • Move to cooler, less humid work areas. • Avoid using ointment or creams.
Heat Cramps	Muscle cramps, pain or spasms in the abdomen, arms or legs	<ul style="list-style-type: none"> • Drink water. • Have a snack and/or electrolyte replacement beverage, such as a sports drink • If cramps do not subside in an hour, seek medical attention.
Heat Exhaustion	<ul style="list-style-type: none"> • Headache • Nausea/dizziness • Irritability • Thirst • Weakness • Heavy sweating • Elevated body temperature • Decreased urine output 	<ul style="list-style-type: none"> • Remove worker to cool area (air conditioning if possible) and give liquids to drink, particularly cool liquid. • Remove unnecessary clothing from worker. • Cool the worker with cool water or compresses. • Bring worker to clinic or emergency room for evaluation and treatment. • Stay with the worker until help arrives.
Heat Stroke	<ul style="list-style-type: none"> • Confusion, altered mental state, slurred speech • Loss of consciousness • Sweating stops or profuse sweating • Seizures • Very high body temperature 	<ul style="list-style-type: none"> • Call for emergency medical care. • Remove worker to cool area (air conditioning if possible, shade, etc.) and remove unnecessary clothing. • Cool worker aggressively with cold water or ice bath. • Place cold, wet cloth or ice on head, neck, armpits and groin. • Circulate air around worker. • Stay with worker until medical help arrives.

- Heat stroke is particularly serious and can result in death or permanent injury. Fortunately, heat exhaustion frequently precedes heat stroke and if detected at this stage can be treated more easily.
- If someone is already showing signs of heat stroke, they may not be able to call for help or treat themselves effectively. This is why it is important to know the signs and keep an eye out for others when working in extreme heat.

Discussion Questions

- What can we do to prevent heat-related illnesses?
- How do you identify the symptoms of heat exhaustion?
- How would you treat someone showing symptoms of heat exhaustion?
- How would the treatment for heat stroke be different than heat exhaustion?

Heat-Related Illness Prevention Session

Planning and Review

Trainer

Training Date

Department(s)

TRAINING GOALS

- Employees understand the signs and symptoms of heat rash, heat cramps, heat exhaustion and heat stroke.
- Employees understand the various treatments for heat-related illnesses.
- Employees know prevention techniques to avoid or reduce heat-related illness.
- Employees are familiar with the emergency action plan in the event medical assistance is required.

RESOURCES

- MCIT resource [Public Works Loss Prevention Best Practices Guide](#) or [Solid Waste Loss Prevention Best Practices Guide](#) chapter for Temperature Extremes, MCIT.org/resource/.
- Occupational Safety and Health Administration Safety and Health Topics: Occupational Heat Exposure, OSHA.gov.

REVIEW

Did the training meet the stated goals?

How can the training be improved?

TRAINER COMMENTS

