



Minnesota Counties Intergovernmental Trust

A MINI TRAINING SESSION FOR INJURY PREVENTION

# Quick Take on Safety

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## Cold-related Illness Prevention

### TRAINING OVERVIEW AND OBJECTIVES

- Overview:** This training discusses methods to identify symptoms related to extreme cold and methods to prevent cold-related illness.
- Purpose:** This training is designed to refresh employees about cold stress and other cold-related illnesses: symptom identification, treatment and prevention.
- Preparation:** Read and become familiar with this Quick Take. Review the emergency action plan for the organization, with regards to summoning emergency response. *Change as needed to reflect procedures and personnel in your department.*
- Handouts:** Quick Review of Safety: Cold-related Illness Prevention
- Note:** For more information about ways to reduce cold 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/](http://MCIT.org/public-works/).

### Extreme Cold Hazards

Exposure to cold can lead to health conditions collectively referred to as cold stress. The most common types of cold stress are chilblains, frostbite and hypothermia. Hypothermia is particularly serious and can result in death or permanent injury. As we all know, Minnesota temperatures and wind chills can dip well below freezing for months at a time.

[*Instructor prompt:* Discuss specific tasks where employees may be subject to cold stress.]

Cold stress can be serious, but when we prepare for it and recognize symptoms of it, we can minimize the hazards. Your health and safety are important to us; we don't want you to get hurt.

### Prevention

- Be aware of weather reports, temperature and wind-chill forecasts and plan accordingly.
- Wear appropriate clothing with multiple layers of loose clothing. Consider wearing a snug base layer of moisture wicking material to pull sweat away from your body. Don't wear overly tight clothing because it can reduce blood circulation needed for warming.
- Protect ears, face, hands and feet.
- Wear waterproof, insulated boots.
- Stay dry whenever possible. Consider having a separate set of clothes to change into if clothing becomes wet.
- Take breaks in warm areas and limit time outside on cold days.

- Monitor yourself or others for signs and symptoms of cold 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 Cold Stress

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

### Common Symptoms of and Treatments for Cold Stress

COLD STRESS	SYMPTOMS	TREATMENT
Chilblains	<ul style="list-style-type: none"> <li>• Redness</li> <li>• Itching</li> <li>• Possible blistering</li> <li>• Inflammation</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid scratching.</li> <li>• Slowly warm the skin.</li> <li>• Corticosteroid creams help relieve itching and swelling.</li> <li>• Clean and cover blisters or ulcers.</li> </ul>
Frostbite	<ul style="list-style-type: none"> <li>• Reduced blood flow to hands and feet</li> <li>• Numbness, tingling or stinging</li> <li>• Aching, bluish or pale waxy skin</li> </ul>	<ul style="list-style-type: none"> <li>• Move to a warm area.</li> <li>• Avoid walking on frostbitten toes or feet when possible.</li> <li>• Immerse affected areas in warm—not hot—water. If immersion is not possible, warm fingers under arm pits or with body warmth.</li> <li>• Avoid rubbing frostbitten areas. Be aware that numb areas are easy to burn, for example with water that is too hot.</li> </ul>
Hypothermia	<ul style="list-style-type: none"> <li>• Early symptoms: shivering, fatigue, loss of coordination, confusion and disorientation</li> <li>• Late symptoms: no shivering, blue skin, dilated pupils, slowed pulse and breathing, loss of consciousness</li> </ul> <p>Temperatures do not have to be freezing for hypothermia to set in; observe symptoms carefully.</p>	<ul style="list-style-type: none"> <li>• Call for emergency medical assistance.</li> <li>• Move affected individual to a warm area.</li> <li>• Remove wet clothing.</li> <li>• First, warm the center of the body using an electric blanket or chemical hot packs.</li> <li>• Give warm nonalcoholic beverages to worker, but do not give beverages to unconscious workers.</li> <li>• After temperature has increased, keep worker dry and wrapped in a warm blanket including the head and neck.</li> <li>• Stay with the worker until medical help arrives (as needed).</li> </ul>

- As I mentioned earlier, hypothermia is particularly serious. Fortunately, hypothermia frequently occurs in stages. If detected in early stages, we can treat it and prevent injury more easily.
- If someone is showing signs of hypothermia, 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 each other when we work in the extreme cold.

### Discussion Questions

- What can we do to prevent cold-related illnesses?
- How do you identify the symptoms of hypothermia?
- How would you treat someone showing symptoms of hypothermia?

# Cold-related Illness Prevention Session Planning and Review

Trainer

Training  
Date

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Department(s)

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## TRAINING GOALS

- Employees understand the signs and symptoms of chilblains, frostbite and hypothermia.
- Employees understand the various treatments for cold-related illnesses.
- Employees know prevention techniques to avoid or reduce cold-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 Management Loss Prevention Best Practices Guide](#) chapter for Temperature Extremes, [MCIT.org/resource/](http://MCIT.org/resource/).
- Occupational Safety and Health Administration Safety and Health Guides: Cold Stress, [OSHA.gov](http://OSHA.gov)
- National Institute for Occupational Health and Safety (NIOSH): Cold Stress, [CDC.gov/niosh](http://CDC.gov/niosh)

## REVIEW

Did the training meet the stated goals?

How can the training be improved?

## TRAINER COMMENTS

