

## **COLD STRESS: Working Safely in Cold Weather**

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

**INTRODUCTION:** A brief description of the program and the subject that it addresses.

**PROGRAM OUTLINE:** Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

**PREPARING FOR AND CONDUCTING THE PRESENTATION:** These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

**DISCUSSION QUESTIONS:** Questions may be copied and given to participants to stimulate discussion about the program, its safety lessons and universal theme.

### **INTRODUCTION**

Anyone who works outside on a regular basis knows that at some point or another, you're going to experience cold and wet weather conditions.

These working conditions can threaten your ability to do your job safely, as cold can have negative effects on the body. This is known as "cold stress."

Cold and wet weather can begin to have negative effects on the body in temperatures as high as 59 degrees Fahrenheit.

### **INSTRUCTIONAL CONTENT**

#### **HYPOTHERMIA**

Hypothermia is a potentially life threatening illness that begins when the body's internal temperature sinks from its normal 98.6 degrees to 95 degrees Fahrenheit, or lower.

- Hypothermia Symptoms
  - Shivering
  - Muscle Tension
  - Fatigue
  
- Advanced Symptoms
  - Slurred Speech
  - Difficulty Performing Tasks
  - Loss of Coordination
  - Confusion
  - Erratic Behavior
  - Irritability
  - Slow Breathing and Heart Rate
  - Unconsciousness
  
- Hypothermia Prevention
  - Wearing multiple layers of clothing to trap warm air is important for preventing Hypothermia.
  - Also, wearing layers allows you to regulate your temperature as weather conditions change.

## **FROSTBITE**

Frostbite occurs when skin is exposed to freezing temperatures. It can cause permanent damage and even lead to amputation in severe cases.

- Frostbite Signs
  - Reddened skin
  - Tingling
  - Aching
  - Loss of feeling
  - Blisters
- Frostbite Treatment
  - Go to a warm location
  - Use warm water
  - Do not rub frostbitten area
  - Do not use dry heat
  - Leave blisters intact

## **TRENCH FOOT**

Trench Foot can develop when feet are exposed to water or damp conditions for an extended period of time. It can affect the heels, toes or entire foot; and can occur in temperatures as high as 60 degrees Fahrenheit.

- Trench Foot Signs
  - Reddened skin
  - Tingling
  - Pain
  - Swelling
  - Leg cramps
  - Numbness
  - Blisters
- Trench Foot Treatment
  - Re-warm feet for 5 minutes-at-a-time in warm water...not hot water.
  - Wrap with dry cloth.

## **CONCLUSION**

Cold stress can be hard to recognize. So, it's important to keep an eye on your co-workers. If you notice a co-worker shivering or working unsafely, make sure to say something.

## **PREPARE FOR THE SAFETY MEETING**

Review each section of this Leader's Guide as well as the DVD or digital media. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the program and then play it without interruption. Review the program content by presenting the information in the program outline.

**Here are some suggestions for preparing your video equipment and the room or area you use:**

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the program.

**CONDUCTING THE PRESENTATION**

Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.

Explain that the primary purpose of the program is to show employees how to work safely in cold weather.

Introduce the program. Play it without interruption. Review the program content by presenting the information in the program outline.

Lead discussions about your company's rules regarding working safely in cold weather.

After watching the program, the viewer will be able to explain the following:

- Hypothermia – Symptoms, Advanced Symptoms & Prevention
- Frostbite – Signs & Treatment
- Trench Foot – Signs & Treatment

**COLD STRESS:  
Working Safely in Cold Weather**

***REVIEW QUIZ***

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to check how well you understand the information presented during this program.*

1. At what temperature does Cold Stress begin to affect the body?
  - a. 0 degrees Fahrenheit
  - b. 32 Degrees Fahrenheit
  - c. 59 Degrees Fahrenheit
  - d. 75 Degrees Fahrenheit
  
2. Hypothermia happens when the body's temperature sinks from its normal 98.6 degrees to 95 degrees or lower.
  - a. True
  - b. False
  
3. Which of the following is not a symptom of Hypothermia?
  - a. Shivering
  - b. Slurred Speech
  - c. Blisters
  - d. Confusion
  
4. It's a good idea to wear multiple layers clothing to regulate body temperature.
  - a. True
  - b. False
  
5. Frostbite is the same as Trench Foot.
  - a. True
  - b. False
  
6. Which of the following is a sign of Frostbite?
  - a. Reddened Skin
  - b. Tingling
  - c. Blisters
  - d. All of the above
  
7. Using a radiator or heating pad is the best way to treat Frostbite.
  - a. True
  - b. False
  
8. Trench Foot affects which body part?
  - a. Head
  - b. Earlobes
  - c. Hands
  - d. Feet
  
9. If you have Trench Foot it's best to soak you feet in the hottest water you can tolerate.
  - a. True
  - b. False
  
10. Symptoms of Cold Stress occur rapidly and are easily noticed.
  - a. True
  - b. False

**ANSWERS TO THE REVIEW QUESTIONS**

1. c
2. a
3. c
4. a
5. b
6. d
7. b
8. d
9. b
10. b