

Weather Related Illness Exposure Plan



Environmental Health, Safety and Risk Management Department
P.O. Box 6113, SFA Station
Nacogdoches, Texas 75962-6113

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Introduction

Workers may be required to work in extreme weather for long periods. When the body is no longer able to regulate itself, heat and cold stress can occur. 29 CFR 1910.132 (d) mandates the employer to perform a hazard assessment of the workplace to determine if the use of PPE is necessitated; select and mandate employee use of the necessary PPE; communicate selection of PPE decisions to employees; and select PPE that properly fits the employees.

The Environmental Health, Safety, and Risk Management has developed this program for Stephen F. Austin State University employees. This program provides the procedures and safety practice to minimize the adverse effects of heat and cold stress when working in hazardous weather.

Heat-Related Illnesses: Signs, Treatment, Prevention

Heat Illness

Exposure to heat can cause illness and death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps and heat rash, should also be avoided.

There are precautions that can be taken any time temperatures are high and the job involves physical work.

Risk Factors for Heat Illness

High temperature and humidity, direct sun exposure, no breeze or wind

Heavy physical labor

No recent exposure to hot workplaces

Low liquid intake

Waterproof clothing

Symptoms of Heat Exhaustion

Headache, dizziness, or fainting

Weakness and wet skin

Irritability or confusion

Thirst, nausea, or vomiting

Symptoms of Heat Stroke

May be confused, unable to think clearly, pass out, collapse, or have seizures (fits)

May stop sweating

To Prevent Heat Illness:

Establish a complete heat illness prevention program.

Provide training about the hazards leading to heat stress and how to prevent them.

Provide a lot of cool water to workers close to the work area. At least one pint of water per hour is needed.

Modify work schedules and arrange frequent rest periods with water breaks in shaded or air-conditioned areas.

- Gradually increase workloads and allow more frequent breaks for workers new to the heat or those that have been away from work to adapt to working in the heat (acclimatization).

- Designate a responsible person to monitor conditions and protect workers who are at risk of heat stress.
- Consider protective clothing that provides cooling.

How to Protect Workers

Know signs/symptoms of heat illnesses; monitor yourself; use a buddy system.

Block out direct sun and other heat sources.

Drink plenty of fluids. Drink often and BEFORE you are thirsty. Drink water every 15 minutes.

Avoid beverages containing alcohol or caffeine.

Wear lightweight, light colored, loose-fitting clothes.

What to Do When a Worker is Ill from the Heat

Call a supervisor for help. If the supervisor is not available, call 911.

Have someone stay with the worker until help arrives.

Move the worker to a cooler/shaded area.

Remove outer clothing.

Fan and mist the worker with water; apply ice (ice bags or ice towels).

Provide cool drinking water, if able to drink.

IF THE WORKER IS NOT ALERT or seems confused, this may be a heat stroke. CALL 911 IMMEDIATELY and apply ice as soon as possible.

Cold-Related Illnesses: Signs, Treatment, Prevention

Common Types of Cold Stress

Hypothermia

- Normal body temperature (98.6°F) drops to 95°F or less.
- **Mild Symptoms:** alert but shivering.
- **Moderate to Severe Symptoms:** shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death.

Frostbite

- Body tissues freeze, e.g., hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation.
- **Symptoms:** numbness, reddened skin develops gray/white patches, feels firm/hard, and may blister.

Trench Foot (also known as Immersion Foot)

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet.
- **Symptoms:** redness, swelling, numbness, and blisters.

Risk Factors

- Dressing improperly, wet clothing/skin, and exhaustion.

For Prevention, Your Employer Should:

- Train you on cold stress hazards and prevention.
- Provide engineering controls, e.g., radiant heaters.
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas.

How to Protect Yourself and Others

- Know the symptoms; monitor yourself and co-workers.
- Drink warm, sweetened fluids (no alcohol).
- Dress properly:
 - Layers of loose-fitting, insulating clothes
 - Insulated jacket, gloves, and a hat (waterproof, if necessary)
 - Insulated and waterproof boots

What to Do When a Worker Suffers from Cold Stress

For Hypothermia:

- Call 911 immediately in an emergency.
- To prevent further heat loss:
 - Move the worker to a warm place.
 - Change to dry clothes.
 - Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag). Do **not** cover the face.
- If medical help is more than 30 minutes away:
 - Give warm, sweetened drinks if alert (no alcohol).

—Apply heat packs to the armpits, sides of chest, neck, and groin. Call 911 for additional rewarming instructions.

For Frostbite:

- Follow the recommendations “**For Hypothermia**”.
- Do not rub the frostbitten area.
- Avoid walking on frostbitten feet.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.
- Do not try to rewarm the area unless directed by medical personnel.

For Trench (Immersion) Foot:

- Remove wet shoes/socks; air dry (in warm area); keep affected feet elevated and avoid walking. Get medical attention.

Training

Employees who may be exposed to weather that could cause heat or cold related illnesses should receive proper training before working in such conditions. Contact EHSRM at 468-6034 to schedule a weather-related illness training.