

Safety & Health Hypothermia

OSHA Issues Cold Stress Card Providing Workplace Guidance

Workers in construction, commercial fishing, maritime, agriculture, or who otherwise spend time outdoors or in unheated environments need to take precautions against hypothermia and related illnesses, the Occupational Safety and Health Administration said in guidelines issued Dec. 21.

In releasing its “Cold Stress Card” in English and Spanish, OSHA reminded employers and workers that hypothermia is a medical emergency caused when the body is unable to warm itself. Cold-related illness can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing. Serious cold-related illnesses and injuries include permanent tissue damage and possibly death.

Injury at Lower Temperatures

It does not have to be bitterly cold to cause damage, OSHA emphasized. Hypothermia can strike workers when land temperatures are above freezing or when water temperatures are above freezing or when water temperatures are just below 98.6 degrees, the body’s natural temperature. Under either circumstance, when the body’s temperature drops below 98.6 degrees, a worker can become fatigued or drowsy, with uncontrollable shivering, cold bluish skin, slurred speech, clumsy movements, and irritable, irrational, or confused behavior, it said. The person can slowly lose body control and mental sharpness, conditions that can lead to accidental death, or, over time, serious injury and death from the cold itself.

Frostbite is a condition most commonly associated with bitter cold. It can slowly overwhelm a worker outdoors, freezing deep layers of skin and tissue, which turn pale, and waxy-white as the skin becomes hard and numb. It usually affects the fingers, hands, toes, feet, ears, and nose, OSHA warned. Without intervention, frostbite can lead to amputation of these areas, and to death.

Workers are at increased risk for frostbite and hypothermia when they have health conditions such as cardiovascular disease, diabetes, and hypertension, according to OSHA. Other risks include taking certain medications. Individuals who are older, are in poor physical condition, or have a poor diet are at increased risk.

OSHA recommendations for addressing the risk of hypothermia and frostbite include:

- Recognize the environmental and workplace conditions that lead to potential cold-induced illnesses and injuries.
- Learn the signs and symptoms of cold-induced illnesses/injuries and what to do to help workers.
- Train workers about cold-induced illnesses and injuries.

- Select proper clothing for cold, wet, and windy conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin.
- Take frequent short breaks in warm, dry shelters to allow the body to warm up.
- Perform work during the warmest part of the day.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system of working in pairs.
- Drink warm beverages and avoid drinks with caffeine like coffee, tea, or hot chocolate, and alcohol.
- Eat warm, high-calorie foods.

The first response to any sign of frostbite or hypothermia must be to call for emergency help, followed by efforts to move the worker to a warm, dry area, according to the OSHA guidelines. Do not rub the affected areas, or place the worker in a warm water bath, as this may stop his or her heart, OSHA warned.

OSHA's Cold Stress Card reference guide and recommendations to prevent cold-related illnesses and injuries is available in English and Spanish online at <http://www.osha.gov/index.html>, or can be ordered in bulk by calling 800-321-6742.

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