



EHS Fact Sheet

Cold Stress

Introduction

Cold-related illnesses occur when the body is unable to keep itself warm. When left untreated, cold-related illnesses can lead to tissue damage and death in some cases. In cold environments the body is working harder to keep warm. After a period of time in a cold atmosphere, the body ceases to supply blood to the extremities, resulting in the rapid cooling of these body parts. This rapid cooling also increases the risk of hypothermia and frostbite and can occur from a number of conditions, such as; cold air temperatures, high velocity winds, humidity and contact with cold water or surfaces.

Protect yourself from cold stress

- Periodically check the condition of yourself and your coworkers.
- Wear warm, loose layered clothing.
- Protect ears, face, hands, feet and head in cold or wet weather.
- Boots should be waterproof.
- Take breaks in warm areas and stay hydrated.
- Carry extra gloves, hats, clothes and chemical hot packs.
- Use radiant heaters, shielding from cold conditions and insulating materials when available.

Types of cold-induced illnesses

Hypothermia is a cold related illness that results when the body no longer has stored energy to generate heat.

Symptoms: early symptoms of hypothermia are; shivering, fatigue, loss of coordination and confusion. As hypothermia progresses, you may see a change in symptoms- shivering may stop, skin can become blue in color, slower pulse and breathing, and even loss of consciousness.

Treatment: request medical attention and begin to warm the victim by removing wet clothing and applying heat (skin to skin contact or use an electric blanket) to the center of their body.

Frostbite is a cold-induced injury that is caused by freezing. Frostbite usually targets smaller body parts that are exposed to the cold, such as the nose, ears, chin, fingers or toes.

Symptoms: numbness, reduced blood flow, aching, tingling and waxy skin.

Treatment: retreat to a warm area and begin to warm the body part by immersing it in warm water or by using body heat. Do not massage the frostbitten area, this may cause more damage.

Trench Foot results from prolonged exposure to wet or cold conditions. Trench foot can occur in temperatures as high as 60° F if the feet are wet for a prolonged period of time.

Symptoms: red skin, numbness, cramps, swelling, tingling pain, blisters and bleeding and gangrene.

Treatment: remove the wet articles of clothing and dry the feet. Avoid walking on the feet because it could lead to tissue damage.

OSHA Quick Card - <https://www.osha.gov/Publications/OSHA3156.pdf>