

PROTECT YOURSELF AND OTHERS FROM HYPOTHERMIA AND FROSTBITE

Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extremely cold or wet weather is a dangerous situation that can cause occupational illness and injuries such as hypothermia and frostbite.

HYPOTHERMIA

Hypothermia is a medical emergency that occurs when your body loses heat faster than it can produce heat, causing a dangerously low body temperature. Hypothermia is often caused by exposure to cold weather or immersion in cold water.

According to Mayo Clinic, when your body temperature drops, your heart, nervous system and other organs can't work normally. Left untreated, hypothermia can lead to complete failure of your heart and respiratory system and eventually to death.

SYMPTOMS OF HYPOTHERMIA

EARLY SYMPTOMS

SHIVERING
FATIGUE
LOSS OF COORDINATION
CONFUSION AND DISORIENTATION

LATE SYMPTOMS

NO SHIVERING
BLUE SKIN
DILATED PUPILS
SLOWED PULSE AND BREATHING
LOSS OF CONSCIOUSNESS

HYPOTHERMIA FIRST AID

REQUEST IMMEDIATE MEDICAL ASSISTANCE
MOVE THE VICTIM INTO A WARM ROOM OR SHELTER
REMOVE WET CLOTHING
WARM THE CENTER OF THEIR BODY FIRST - CHEST, NECK, HEAD AND GROIN
WARM BEVERAGES MAY HELP INCREASE THE BODY TEMPERATURE
KEEP THEM DRY AND WRAPPED IN A WARM BLANKET
IF NO PULSE, BEGIN CPR

FROSTBITE

Frostbite is a type of injury caused by freezing. According to the Centers for Disease Control (CDC), it leads to a loss of feeling and color in the areas it affects, usually extremities such as the nose, ears, cheeks, chin, fingers and toes. Frostbite can permanently damage the body, and severe cases can lead to amputation (removing the affected body part).

SYMPTOMS OF FROSTBITE

REDUCED BLOOD FLOW TO HANDS AND FEET
NUMBNESS
ACHING
TINGLING OR STINGING
WAXY SKIN TEXTURE
SKIN THAT LOOKS RED, WHITE, BLuish-WHITE, GRAYISH-YELLOW, PURPLISH, BROWN OR ASHEN, DEPENDING ON THE SEVERITY OF THE CONDITION AND USUAL SKIN COLOR

FROSTBITE FIRST AID

GET INTO A WARM ROOM AS SOON AS POSSIBLE
UNLESS NECESSARY, DO NOT WALK ON FROSTBITTEN FEET OR TOES
IMMERSE THE AFFECTED AREA IN WARM (NOT HOT) WATER
WARM THE AFFECTED AREA USING BODY HEAT. DO NOT USE A HEATING PAD.
WARM BEVERAGES MAY HELP INCREASE THE BODY TEMPERATURE
DO NOT MASSAGE THE FROSTBITTEN AREA TO AVOID MORE DAMAGE

WHAT YOU CAN DO TO PROTECT YOURSELF AND OTHERS

MONITOR YOUR PHYSICAL CONDITION AND THAT OF YOUR COWORKERS.
WEAR APPROPRIATE CLOTHING. OSHA RECOMMENDS WEARING THREE LAYERS OF CLOTHES.
WEAR SEVERAL LAYERS OF LOOSE CLOTHING FOR INSULATION BECAUSE TIGHT CLOTHING REDUCES BLOOD CIRCULATION TO THE EXTREMITIES.
BE AWARE THAT SOME CLOTHING MAY RESTRICT MOVEMENT RESULTING IN A HAZARDOUS SITUATION.
PROTECT THE EARS, FACE, HANDS AND FEET IN EXTREMELY COLD OR WET WEATHER.
BOOTS SHOULD BE WATERPROOF AND INSULATED.
WEAR A HAT TO REDUCE THE LOSS OF BODY HEAT FROM YOUR HEAD.
MOVE INTO WARM LOCATIONS DURING BREAKS; LIMIT THE AMOUNT OF TIME OUTSIDE.
CARRY EXTRA SOCKS, GLOVES, HATS, JACKET, BLANKETS, A CHANGE OF CLOTHES AND A THERMOS OF HOT LIQUID.
INCLUDE CHEMICAL HOT PACKS IN YOUR FIRST AID KIT.
AVOID TOUCHING COLD METAL SURFACES WITH BARE SKIN.

**Changes in the color of the affected area may vary according to skin color, please reference all symptoms listed when determining if an employee has been exposed.*

Sources

"Frostbite." *Mayo Clinic*, 27 April 2022. *Mayo Clinic*, <https://www.mayoclinic.org/diseases-conditions/frostbite/symptoms-causes/syc-20372656>.

"Prevent Hypothermia & Frostbite." *Centers for Disease Control*, 8 Feb. 2019. *CDC*, <https://www.cdc.gov/disasters/winter/staysafe/hypothermia.html>.