

MSHA Safety Alert

Cold Stress Related Injuries

Cold stress is a condition occurring when the body can no longer maintain a normal temperature. The condition can result in very serious cold-related illnesses and injuries, permanent tissue damage or death. Those working in cold environments ---with low temperatures, high wind speed, humidity, and/or contact with cold water or surfaces--- are particularly susceptible to cold stress.



Types of Cold Stress Injuries

- **Hypothermia** occurs when your body begins to lose heat faster than it can be produced. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well.
- **Frostbite** is an injury to the body caused by freezing. Frostbite causes a loss of feeling and can affect the nose, ears, cheeks, chin, fingers, or toes.
- **Trench Foot**, also known as immersion foot, is an injury of the feet resulting from prolonged exposure to wet and cold conditions.

BEST PRACTICES

- Monitor your physical condition and that of your co-workers.
- Wear several layers of clothing for insulation. The first layer should fit snugly against the skin and be made of a nonabsorbent material that wicks away water and keeps skin dry. Clothing should not be too tight as this may restrict movement resulting in a hazardous situation.
- Protect your ears, face, hands and feet in extremely cold or wet weather.
- Wear waterproof and insulated boots and clothing.
- Wear a hat to reduce the loss of body heat from your head.
- Have extra socks, gloves, hats, jacket, blankets, and a change of clothes available in case the weather becomes much worse or your clothes become wet.
- Use radiant heaters in break areas and limit the amount of time outside.
- Carry or make available a thermos of hot liquid.
- Include chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.
- Maintain adequate hydration and nutritional requirements.



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