

Cold Stress Injuries



When working in a cold environment, body heat can quickly dissipate, which can cause cold stress and an increased risk for cold stress injuries and illness:

Hypothermia happens when your body reaches an internal temperature of 35°C or lower, which occurs when your body can't produce heat as quickly as you're losing it.

- | Moderate symptoms | Severe symptoms |
|--|---|
| <ul style="list-style-type: none">• Out of control or violent shivering• Blue, fingers, and toes• Slow breathing and heart rate• Disorientation and confusion• Poor coordination | <ul style="list-style-type: none">• Unconsciousness• Irregular or hard to find pulse• No detectible breathing• Unresponsive, dilated pupils• No shivering or movement |

- Prevention**
- Stay hydrated and make sure you've eaten enough
 - Wear wool or wool blends
 - Layer loose clothing
 - Avoid drinking alcohol or caffeine
 - If possible, frequently go to a warmer place to warm up



Frostbite is the freezing of skin and underlying tissue. When the temperature is under 0°C, exposed and uncovered skin is at risk, especially in windy or wet conditions. Frostbite is most common on the extremities.

- | Symptoms | Treatment |
|--|---|
| <ul style="list-style-type: none">• Numbness• Tingling• Mild pain after rewarming• Cold, hard, waxy-looking skin• Joint stiffness• Blistering after rewarming | <p>Mild frostbite is known as "frostnip" and can usually be treated at home.</p> <p>If more severe, or if fluid-filled blisters appear, it should be treated by a medical professional.</p> |



- Prevention**
- Wear at least three layers of loose, dry, warm, and moisture-wicking clothes
 - Wear waterproof, insulated boots and mittens (not gloves)
 - Wear a warm, weatherproof hat that covers your ears
 - Immediately move to a warmer area if you feel numbness and tingling

Trench foot can happen if feet are in a cold and wet environment for more than 10 hours. Trench foot is a non-freezing injury, so if the temperature is 16°C or lower, workers in damp and wet environments are at risk.

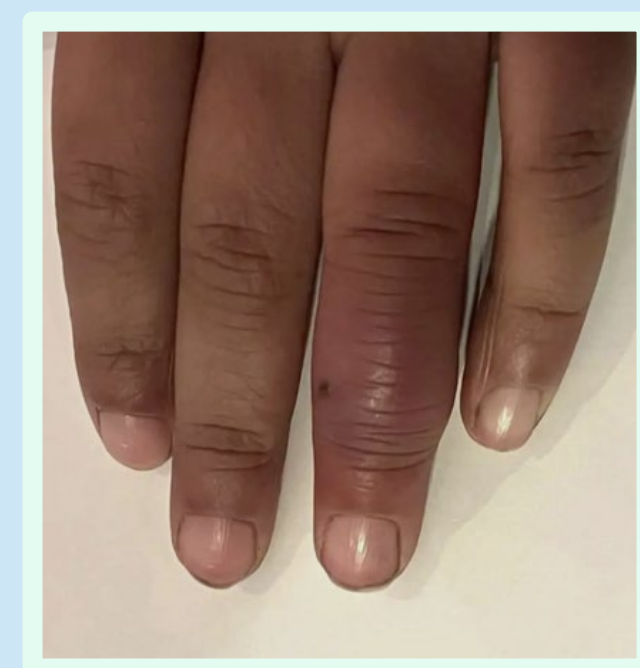
- | Symptoms | Prevention |
|--|--|
| <ul style="list-style-type: none">• Tingling, itching, numbness, heaviness in the feet• Pale, clammy, and white or ashy-looking skin• Discoloration and swelling• Red appearance, extreme pain, blisters, open sores, and increased sensitivity | <p>Trench foot happens in stages, so it looks and feels different depending on how much it has progressed.</p> |

- Prevention**
- If feet get wet or damp, change socks and shoes immediately
 - Wear shoes that fit well
 - Keep feet clean and dry
 - Wear moisture-wicking, not overly tight socks
 - Do not sleep with socks on



Chilblains is a condition that causes inflamed swollen patches and blistering on the hands and feet. It's caused by exposure to damp air that's cold, but not freezing.

- | Symptoms | Treatment |
|---|--|
| <ul style="list-style-type: none">• Small, itchy patches of skin• Sores or blistering• Swelling• Discolouration• Pain | <p>Chilblains can often be treated at home, but frostbite blisters can easily mistaken for them. If you were in below-freezing or windy conditions, if the blisters don't heal quickly on their own, or if the sores look infected, you should see a doctor.</p> |



- Prevention**
- Wear mittens in cold, wet weather
 - Keep extremities warm and dry
 - Wear moisture-wicking, not overly tight socks
 - Maintain a comfortable, warm temperature in your home and place of work.