

Hypothermia Fact Sheet

Hypothermia is a medical condition that occurs when the body temperature drops to dangerous levels during prolonged exposure to cold temperatures. Risk factors include fatigue, alcohol, caffeine and drug use, altitude, dehydration, extremes of age, certain heart and mood stabilizing medications.

SYMPTOMS

- Notable Shivering
- Pale skin
- Dizziness
- Trouble speaking
- Mental sluggishness
- Hunger
- Nausea
- Poor coordination

Severe Symptoms

- Loss of consciousness
- Slurred speech
- Confusion
- Cessation of shivering
- Weak pulse
- Paradoxical undressing (victim will attempt to remove clothing)

PREVENTION

- Hypothermia is best avoided by maintaining weather-appropriate clothing and shelter.
- Have on hand emergency warming blankets, hand/feet warmers (for cold environment use before hypothermia sets in).
- Avoid strenuous activity that causes sweating when working in cold environments.
- Check the weather to prepare for expected wind chill. Wind causes the body to cool faster, for example if it is 40°F and the wind is 35 mph, your skin experiences cooling as if the air temperature were 28°F.
- Wet clothing can cause rapid onset of hypothermia.
- Remember the phrase “Cotton Kills!” as clothing made from cotton does not provide insulation when wet, and can exacerbate cooling. Wear technical fabrics that wick moisture away from skin.
- Keep in mind hypothermia need not be caused by exposure to freezing conditions. Inadequate clothing and shelter can cause hypothermia at temperatures as high as 60° F.
- Eat small amounts of food frequently. Avoid items containing caffeine and alcohol, as these substances can exacerbate cooling.

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- Monitor people for the “umbles”: fumbles, grumbles, mumbles, and stumbles. Periodically, check for team members’ ability to use higher reasoning skills (e.g., count backwards from 100 by nines). Start heading for shelter if any symptoms or changes in ability are observed.

FIRST AID TREATMENT.

- Seek shelter and try to warm the victim, focus on warming the victim’s trunk before extremities. Insulate them from the ground. Use warm clothing, a warmed sleeping bag, hot water bottles, and/or chemical heat packs to facilitate warming. Do not use direct heat or immerse them in warm water.
- If clothes are wet, remove them and replace them with dry ones. Wet clothing may not always feel wet to the touch in a cold environment.
- If able, slowly ingest warm liquids and high calorie food.
- In severe cases, be careful of sudden movements, as this may trigger a dangerous, irregular heartbeat.
- Severe cases require immediate medical attention.
- Frostbite management should be treated differently. Affected extremities should not be thawed and refrozen. Move the patient gently to avoid trauma to limbs and heart.

REFERENCES AND ADDITIONAL RESOURCES

American Red Cross [Wilderness and Remote First Aid Emergency Reference Guide](#)

Mayo Clinic [Hypothermia](#)

Illness, injury and close call events shall be reported by submitting an [SU-17](#).

If you have questions or need support, contact EH&S's Field Safety Program at ehs_field_safety_support@lists.stanford.edu.

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