



Hypothermia occurs when the body loses heat faster than it can be generated. A person is experiencing hypothermia when the body temperature drops 2 degrees F or more below their normal temperature. As the body temperature begins to drop, the vital organs such as the heart and brain become unable to function properly. Victims of hypothermia often aren't aware of their condition because the onset is gradual. As hypothermia progresses, they become confused and agitated. Left untreated, the body's organs will begin to fail, ultimately leading to death.

Hypothermia most often occurs when individuals are exposed to extremely cold temperatures for extended periods of time. However, because heat loss is much faster in water, hypothermia can also occur in warmer environments when wearing wet clothing in windy conditions, becoming chilled from being in the rain for an extended period, or becoming submersed in cold water.

For your treks or outings, pre-trip planning is essential to being prepared for possible changes in environmental conditions. Likewise, because changes in the weather and other conditions can occur rapidly, situational awareness is critical to personal safety.

Incident Review #1

While on a cold weather outing, a Boy Scout became lethargic, lost consciousness twice, and did not know what day it was. Emergency services were called. While waiting for first responders to arrive, the Scout's wet outer clothing was removed, and fleece and space blankets were used for warming. The Scout had severe hypothermia due to a combination of cold conditions and wet clothing.



Key Points

- Do not stay in wet clothing, regardless of weather conditions. The combination of wet clothing and cold temperatures, or wet clothing and wind even without very cold temperatures, will cause more heat loss.
- Know which weather conditions to expect so you can plan for proper clothing. Plan and prepare for unexpected changes in weather conditions, and take action quickly as needed.
- Layered clothing makes it possible to add or remove clothing as weather conditions change.

Incident Review #2

A Boy Scout troop had to be rescued during an outing to a canyon. One of the leaders had sustained a leg injury during the hike, which complicated getting out of the canyon on foot. The group was not prepared for a hike of this difficulty, and many of the Scouts were suffering from exhaustion and signs of hypothermia at the time of the rescue.

Key Points

- Be sure that all participants in treks or outings are physically and mentally prepared for the difficulty of the activity and potential changes in environmental conditions.
- Anticipate and be prepared for any hazards that might occur. This could make the difference between an adventurous, fun trek and a trek with a disastrous

Symptoms of hypothermia include

- Shivering
- Slurred speech
- Clumsiness
- Drowsiness
- Confusion



outcome. Complete a gear check before leaving, making sure that each participant has everything needed to be prepared.

- Staying well-hydrated and eating a balanced diet will help keep you prepared for the physical and mental challenges of your trek or outing.



Incident Review #3

A Scout was swimming in cold water between 48 and 51 degrees F. As he came out of the water, he complained of dizziness. His speech was slurred, and he had reduced fine motor coordination.

Key Points

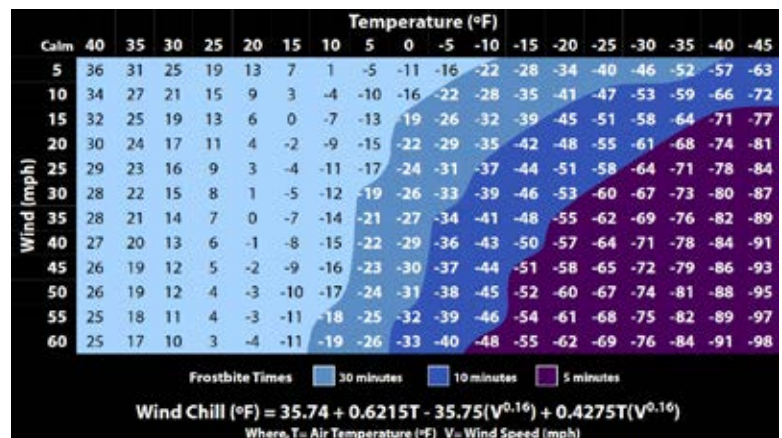
- The Safe Swim Defense plan is one of our best resources for planning a safe swim. Always swim with a buddy. The qualified swim area supervisor is responsible for the safety of the swim area, including determining whether the water temperature is safe to swim in.
- Know the conditions where you plan to swim so you can be sure the area is safe. Do not swim in unsafe areas or where the water temperature or wind may lead to hypothermia.
- Continually monitor someone who is experiencing severe hypothermia. Be prepared to rewarm a person with hypothermia and to perform CPR, if necessary.
- Rewarm the hypothermic person slowly by removing their wet clothing and drying them off. Put them in dry clothes or wrap them in a warm blanket, sleeping bag, or space blanket, and provide a warm drink if they are able to drink. Warm the torso first, then the arms and legs.
- Move the hypothermic person away from the environment that caused the cooling, and indoors if possible.

Discussion Questions

- What kind of environmental conditions might lead to hypothermia?
- What signs and symptoms would you notice in someone experiencing hypothermia?
- What is the significance of eating a healthy diet and staying hydrated in preventing hypothermia?
- What topics should be discussed during pre-trip planning to help determine the various risks of your trek or activity?
- Can you only experience hypothermia in cold weather?
- What gear is essential to prevent hypothermia?

Resources

- *Boy Scout Handbook*—First Aid chapter
- Centers for Disease Control and Prevention—Hypothermia: www.cdc.gov/disasters/winter/staysafe/hypothermia.html
- Emergency Care and Safety Institute—*Wilderness First Aid: Emergency Care in Remote Locations*; fourth edition, Jones and Bartlett Learning, 2016
- How Hypothermia Affects Most Adults—www.theensign.org/uspscompass/compassarchive/compassv1n1/hypothermia.htm
- Mayo Clinic—Hypothermia: www.mayoclinic.org/diseases-conditions/hypothermia/symptoms-causes/syc-20352682



Windchill chart courtesy of National Weather Service, www.weather.gov