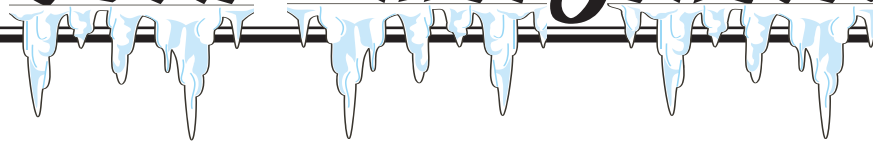


Cold Emergencies



As winter nears and the temperatures begin to fall, it is important to take extra caution when venturing into the great outdoors. Exposure to cold can cause serious injury, such as frostbite or hypothermia. The air temperature does not necessarily have to be below freezing to be considered a risk for cold emergencies. Human service providers need to ensure individuals protect themselves from the elements.

Weather Conditions to Watch For

Wind speed, even at relatively low speeds, can cause the temperature to feel much colder than it actually is. For example, if the thermometer reads 35 degrees Fahrenheit and there is a 20-mile per hour wind, the temperature will feel like it is only 12 degrees Fahrenheit. This effect of wind speed on temperature is known as the wind-chill factor. When the wind-chill factor indicates a relatively low temperature, the air can remove heat from exposed skin so quickly that it will freeze and discolor. This freezing and discoloration of the skin is called frostbite.

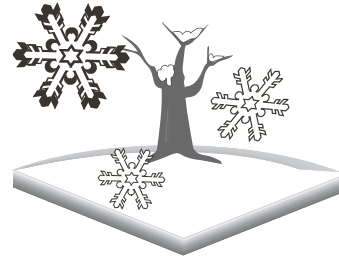
The amount of moisture in the air, or humidity, can also create dangerously cold conditions. The slightest bit of water on exposed skin will conduct heat away from the body faster than dry air will. When combining cold, wet, and windy weather, a person may actually lose body heat faster than the body can produce it. If the body loses heat rapidly and the body temperature falls below its normal level, it can bring on a condition known as hypothermia.



What is Frostbite?

Frostbite is the freezing of the skin and body tissues just under the skin. It occurs when parts of the body are exposed to freezing temperatures for too long. The flow of blood to the affected area stops and the tissue becomes damaged. The areas most often affected are nose, cheeks, ears, fingers and toes. In the mildest form of frostbite, the skin will become unusually white and soft and there may be a "pins and needles" feeling in the area. There is usually no permanent damage. In more severe cases of frostbite, the skin will feel waxy, frozen, numb, and may blister (In the most severe cases, the affected

area will be completely numb and will not blister.) Severe cases of frostbite affect the blood vessels, nerves, muscles, tendons, and bone and may lead to permanent damage, blood clots, and sometimes gangrene.



What is Hypothermia?

Hypothermia is a decrease in body temperature below 95 degrees Fahrenheit. It is usually the result of being in the extreme cold for an extended period of time. With hypothermia, the body becomes too cold to function properly. A person with hypothermia can die if not treated promptly. Hypothermia can happen anywhere outdoors, as well as indoors. Temperatures as mild as 50 degrees have caused hypothermia in people who were not well prepared for the weather. Some people who are either ill or who have certain medical conditions have even developed hypothermia when temperatures are as mild as 60 degrees Fahrenheit. The signs of hypothermia include slurred speech, confused thinking, drowsiness, stiff muscles (Possibly causing stumbling and difficulty in performing tasks such as zipping up clothing or tying a knot.), a pale, puffy face, and skin that is blotchy and cool to the touch. As hypothermia becomes more severe, the heartbeat may become irregular and weak, breathing may become shallow, muscles become rigid, and the person may become unconscious or die.

Susceptibility to Frostbite and Hypothermia



Anyone can be affected by cold conditions. Several factors can make a person more likely to experience an exposure-related condition, such as frostbite or hypothermia. We already addressed the factors of wind, humidity, and clothing, but additional

factors such as those listed below, may increase the risks of exposure:

Age - Infants and the elderly are the most at risk.

State of health - People who are fatigued, in poor physical condition, on certain medications (Such as tranquilizers, sedatives, opiates, and even some over-the-counter cold medications) or who have any of the following diseases have an increased risk:

- * Diseases that affect bloodflow, such as heart disease or diabetes
- * Diseases that reduce mobility, such as arthritis and Parkinson's disease
- * Hypothyroidism, which reduces the body's heat regulating function

Level of physical activity - Inactivity and overexertion may both increase risk.



What to do if Symptoms Appear

In all cases of frostbite and hypothermia, prompt medical attention is necessary to prevent infection, possible loss of limb, or even death. If prompt medical attention is not available, it may be helpful to rewarm the injured area or person before arriving at the hospital. The person should be brought indoors immediately. Wet clothing should be removed. The person or affected area should then be rewarmed by covering with blankets or with body heat. You should not rub the skin, use dry heat, such as a heating pad, or hold the area next to fire, as the injured person has lost the ability to feel and may be burned. Offer the person something warm to drink, like hold the area next to fire, as the injured person has lost the ability to feel and may be burned. Offer the person something warm to drink, like tea or milk. Seek medical assistance as soon as possible.



Finally, try to stay indoors when the wind-chill is dangerously low or when it's wet. Wear layers of clothing and remember to eat a well balanced diet, being certain to eat hot food and drink warm fluids several times a day (Food helps the body to produce heat.) Protect yourself and others by doing what you can to prevent cold injuries, know the symptoms of cold injury, and know what to do if symptoms develop.



How to Prepare for Cold Weather

Dress appropriately for the weather, be sure to:

- * Wear several layers of loose-fitting, light weight clothes. By dressing in layers, you can add or remove layers of clothing to remain comfortable.
- * Choose clothing made of goose down and other natural materials, such as wool or cotton. Natural materials are considered to be much warmer than synthetic ones.
- * Outerwear should be both wind-proof and water-repellent to keep you as dry and comfortable as possible.
- * Wear a hat, as over 50% of body heat is lost through the head.
- * Wear a scarf, being careful to cover your nose and mouth in order to protect your lungs from extremely cold air.
- * Wear mittens, as they keep your hands warmer than gloves.
- * Wear sturdy, insulated, waterproof boots during cold and snowy or flooding conditions.

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