

# Preventing and Responding to Emergencies

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## Lesson 1: Hypothermia, Frostbite, and Frostnip

**Hypothermia** is a condition in which your body temperature falls below 95 degrees. Normal body temperature is approximately 98.6 degrees Fahrenheit. If the body temperature falls below 86 degrees, it can very easily be fatal.

The most common causes of hypothermia are being outdoors in very cold weather without proper clothing, falling into extremely cold water, and living in an unheated or poorly heated home.

*How do you spot hypothermia?*

Answer:

1. Shivering
2. Cold, pale, and dry skin
3. Tiredness, confusion, and strange behavior
4. Slow and shallow breathing
5. Slow and weakening pulse

*What should you do if someone has symptoms of hypothermia?*

Answer:

1. Move them indoors immediately, if possible.
2. Remove any wet clothing and cover with warm, dry things—coats, blankets, etc.
3. Give them something hot to drink (coffee, tea, hot chocolate, or soup).
4. If you can't get them indoors, remove any wet clothing and wrap in blankets.
5. Put branches or pine boughs under them if no blankets are available.
6. Call 911 and wait with them until help arrives.
7. Keep talking to them.
8. Remember to warm their internal organs (trunk) first, not the hands and feet, to prevent shock.

**Frostbite** is damage to the skin and other tissue caused by freezing. **Frostnip** is a mild form of this. Skin exposed to temperatures below freezing can become frozen, especially if they become wet, or in windy conditions even above freezing.

Three things happen in the course of frostbite:

1. The skin begins to freeze.
2. Ice crystals form, which causes damage to capillaries.
3. Blood eventually stops flowing to the areas affected to protect vital internal organs, which causes blood clots and damage to the cells in the blood vessels.

You might encounter frostbite when playing outside during winter without the proper clothing to stay warm, camping in winter, or getting wet outside and not changing your clothing right away.

Frostnip affects your earlobes, cheeks, fingers, nose, and toes. The part affected will turn pale, and numbness or tingling happens until it is warm again.

Frostbite has a range of severity: mostly affected are hands and feet; 10 percent affects nose, cheeks, and ears.

*Signs of frostbite:*

1. Area feels cold and numb
2. Clumsiness
3. Skin turns white/yellowish

*Treatment for frostnip:*

1. Blow warm air on fingers or hold them under an armpit.
2. Cover other areas with warm hands.
3. Never rub the affected area.
4. Change out of wet clothing in cold weather immediately.

*Treatment for frostbite:*

1. Medical help should be sought.
2. Remove wet or tight clothing if possible and put on dry, loose clothes or a blanket.
3. Do not rub the area since that could cause tissue damage.
4. Do not allow it to partially thaw and refreeze.

**Activity:** Practice first aid for frostbite, frostnip, and hypothermia on a sibling, friend, or parent. Discuss how you can help prevent this in your outdoor winter activities.