

**What damages can ice cause, and what are the different kinds of ice?**

Heavy accumulations of ice can bring down trees and topple utility poles and communication towers. Ice can disrupt communications and power for days while utility companies repair extensive damage. Even small accumulations of ice can be severely dangerous to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces.

Ice forms in different ways:

- **Sleet** is rain that freezes into ice pellets before it reaches the ground. Sleet usually bounces when hitting a surface and does not stick to objects; however, it can accumulate like snow and cause roads and walkways to become hazardous.
- **Freezing rain (also known as an ice storm)** is rain that falls onto a surface that has a temperature below freezing. The cold surface causes the rain to freeze so the surfaces—trees, utility wires, vehicles, and roads—become glazed with ice. Even small accumulations of ice can cause significant hazards to people—especially pedestrians and motorists—and property.

**What damages can severe cold cause?**

What constitutes severe cold varies in different parts of the country. In some northern regions, cold temperatures are not considered severe until they are well below 0° F (–18° C). In most southern regions, near-freezing temperatures (around 32° F, or 0° C) are considered severe cold. Severe cold can cause much harm; for example, it can damage crops and other vegetation and freeze pipes causing them to burst. Unusually cold temperatures are especially dangerous in areas not accustomed to them because residents are generally unprepared and may not realize the dangers severe cold present.

Exposure to cold can cause frostbite and life-threatening hypothermia. **Frostbite** is the freezing of body tissue, and it most frequently affects fingers, toes, earlobes, and the tip of the nose. Frostbite damage ranges from superficial and reversible to deep and permanent. Frostbite can result in tissue loss and even loss of digits and limbs.

**Hypothermia** begins to occur when a person's body temperature drops to 3° below its normal temperature. On average, a person would begin to suffer hypothermia if his or her temperature dropped to 96° F (35.6° C). Cold temperatures can cause hypothermia in anyone who is not adequately clothed or sheltered in a place with adequate heat. Hypothermia can kill people, and those who survive hypothermia are likely to suffer lasting ill effects. Infants and elderly people are the most susceptible. Elderly people account for the largest percentage of hypothermia victims, many of whom freeze to death in their own homes. Most of these victims are alone and their heating systems are working improperly or not at all. People who are taking certain medications, who have certain medical conditions, or who have been drinking alcohol also are at increased risk for hypothermia.

**What is winter flooding?**

Winter flooding can result from winter storms or long periods of cold temperatures, and it can cause significant damage and loss of life. The winds of intense winter storms can cause widespread tidal flooding and severe beach erosion along coastal areas. Long cold spells can cause rivers and lakes to freeze so that when a rise in the water level or a thaw breaks the ice into large chunks, the chunks become jammed at man-made and natural obstructions. These ice jams can act as dams, resulting in severe flooding. In addition, the sudden thawing of a heavy snow pack can often lead to flooding.