When Caught in a Winter Storm

When caught in a winter storm while home, make sure to just stay inside. When using alternate heat from a fireplace, wood stove, or a space heater, use fire safeguards and properly ventilate. Prevent carbon monoxide poisoning, by having good ventilation throughout your home. Make sure there is a carbon monoxide detector working on each floor of your home. Do not run car engines with the garage door closed and make sure to get your furnace checked and clean your chimney. Never use a stove or oven to heat your house. If you find yourself with no heat, close off any unneeded rooms, stuff towels or rags in cracks under doors and cover windows at night. Make sure to eat and drink, as food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration. Wear layers of loose-fitting, lightweight, warm clothing. Remove layers to avoid overheating, sweating and subsequent chill.

When caught in your vehicle during a winter storm, stay inside your vehicle. Run the motor about 10 minutes each hour for heat. Open the window a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked. Be visible to rescuers. Tie a colored cloth to your antenna or door. Turn on the dome light at night when running the engine. Wrap your body and head with extra clothes, blankets, newspapers, maps, or removable car mats. After snow stops falling, raise the hood to indicate you need help. From time to time, move your arms, legs, fingers and toes vigorously to keep blood circulating and to keep warm. Do not eat snow as it lowers your body temperature.

If outside, find shelter and try to stay dry. Cover all exposed skin. If no shelter is available, build a lean-to, windbreak or snow cave for protection from the wind. You also should build a fire for heat and to attract attention. Place rocks around the fire to absorb and reflect heat. It is a good idea to melt snow for drinking water since eating snow will lower your body temperature.

Winter Recreation: Be Safe!

Wintertime is a time when many people enjoy activities such as sledding, ice fishing or skiing. However, learning to play it safe will no doubt make your time more enjoyable. Notify friends and family where you will be before you go hiking, camping, skiing or any other activity. Do not leave areas of the skin exposed to the cold. Avoid perspiring or becoming overtired. Be prepared to take emergency shelter if needed. Pack dry clothing, a two-wave radio, waterproof matches and fire starters with you. Avoid caffeinated beverages and alcohol. Avoid walking on ice or getting wet. Carefully watch for signs of cold-weather health problems.

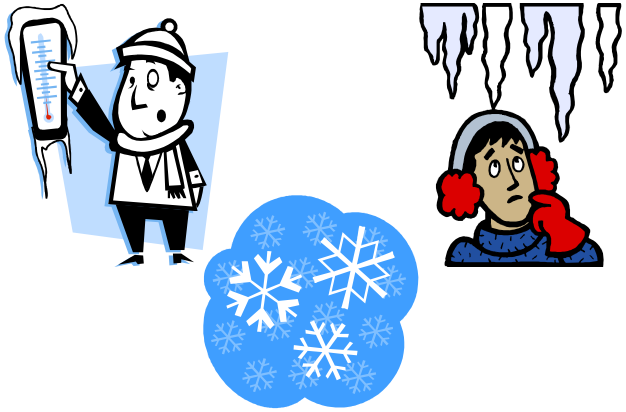
Preparing For A Winter Storm

Primary concerns will be loss of heat, power and telephone service and a shortage of supplies if storm conditions continue for more than a day. Have the following items available: Flashlight and extra batteries, battery powered NOAA Weather Radio, extra canned/non perishable food and water, can opener, extra medicine and baby items, first aid supplies, heating fuel, emergency heat sources, fire extinguisher and smoke alarms.

Before traveling, have the following items in your winter storm survival kit: Cell phone, blankets or sleeping bags, flashlight with extra batteries, first aid kit, knife, high calorie non perishable food, extra clothing to keep dry, small can and waterproof matches to melt snow for drinking water, sack of sand or cat litter for traction, shovel, windshield scraper and brush, extra windshield wiper solvent, tool kit, tow rope, battery booster cables, water container, compass and road maps, and a NOAA Weather Radio.

National Weather Service Paducah
8250 Kentucky Highway 3520
West Paducah, KY 42086
270-744-6440

Winter Weather Safety



A reference guide from the National Weather Service Paducah, Kentucky

Wind Chill Chart

Wind (mph) \ Temperature (°F)	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5		36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10		34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15		32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20		30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25		29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30		28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35		28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40		27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45		26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50		26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55		25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60		25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

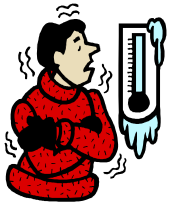
Frostbite Times: 30 minutes, 10 minutes, 5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75($V^{0.16}$) + 0.4275T($V^{0.16}$)

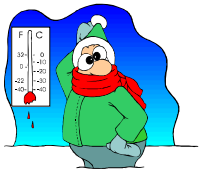
Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01

Frostbite

The wind chill temperature is how cold people and animals feel when outside. Wind chill is based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, lowering skin temperature and eventually the internal body temperature. Therefore, the wind makes it FEEL much colder. Frostbite is damage to body tissue caused by extreme cold. It causes a loss of feeling and a white or pale appearance in extremities such as fingers, toes, ear lobes or the tip of the nose. Skin may freeze hard and look white or pale. When thawed out, skin is red and painful. Very bad frostbite may cause blisters or gangrene (black, dead tissue). If symptoms are detected, get medical help immediately. If you must wait for help, slowly rewarm affected areas. Immerse the affected area in warm, but not hot water. Do not walk on frostbitten feet or toes, as this increases the damage. Do not rub the frostbitten area with snow or massage it, as this can cause more damage. Don't use a heating pad, heat lamp, or the heat of a stove, fireplace, or radiator for warming, since the affected areas are numb and can be easily burned. The risk of frostbite is increased in people with reduced blood circulation and among people who are not dressed properly for cold temperatures.



Hypothermia



Hypothermia occurs when body temperature falls below 95 degrees Fahrenheit. Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and exhaustion. Get medical attention immediately. If you can't get help quickly, begin warming the body slowly. Warm the body core first, NOT the extremities. Warming extremities first drives the cold blood to the heart and can cause the body temperature to drop further--which may lead to heart failure. Get the person into dry clothing and wrap in a warm blanket covering the head and neck. Do not give the person alcohol, drugs, coffee, or any HOT beverage or food. WARM broth and food is better.

About 20% of cold related deaths occur in the home. Keep the thermostat above 69 degrees Fahrenheit, wear warm clothing, eat food for warmth, and drink plenty of water (or fluids other than alcohol) to keep hydrated. Alcohol will lower your body temperature. Young children under the age of two and the elderly are most susceptible to hypothermia. Hypothermia can set in over a period of time and is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F) if a person becomes chilled from rain, sweat, or submersion in cold water.

Three Types of Hypothermia

Acute hypothermia is caused by a rapid loss of body heat, typically caused from immersion into cold water. Subacute hypothermia often happens in cool outdoor weather (below 50°F) when wind chill, wet or too little clothing, fatigue, and/or poor nutrition lower the body's ability to cope with cold. Chronic hypothermia happens from ongoing exposure to cold indoor temperatures (below 60°F). The poor and the elderly are most prone to chronic hypothermia, and they typically misjudge cold, move slowly, have poor nutrition, do not wear enough clothing, and have an inadequate heating system.

How to Handle the Cold Weather

The best way to avoid hypothermia and frostbite is to stay warm and dry indoors. When you must go outside, dress appropriately. Wear several layers of loose-fitting, lightweight, warm clothing. Trapped air between the layers will insulate you. Outer garments should be tightly woven, water repellent, and hooded to reduce body heat loss caused by the wind. Wool, silk, or polypropylene inner layers of clothing will hold more body heat than cotton. Remove layers to avoid sweating and subsequent chill. Wear a hat, because most of your body heat can be lost from your head. Cover your mouth to protect your lungs from extreme cold. Mittens, snug at the wrist, are better than gloves. Try to stay dry and out of the wind. Eat well balanced meals and drink warm sweet beverages or broth to help maintain your body temperature. Also, avoid getting gasoline or alcohol on your skin while de-icing and fueling your car or using a snow blower. These materials in contact with the skin greatly increase heat loss from the body. Do not ignore shivering. It's an important first sign that the body is losing heat. Persistent shivering is a signal to return indoors.

Your heart is already working overtime in cold weather. The strain from the cold and the hard labor of shoveling heavy snow, walking through drifts, or pushing a car may cause a heart attack. Sweating from overexertion could lead to a chill and hypothermia.

Plan your travel and check the latest weather reports to avoid the storm! Fully check and winterize your vehicle before the winter season. Have a good ice scraper and a full reservoir of windshield wiper fluid. Keep your gas tank near full to avoid ice in the tank and fuel lines. Avoid traveling alone. Let someone know your timetable, as well as primary and alternate routes. Lastly, carry a winter storm survival kit.