

Keeping warm in a winter weather emergency

For when there is no electricity or natural gas due to a utility shut-off or natural or man-made disaster.

“The time to build the cellar is before the tornado hits.” Don't wait for a winter emergency to decide what to do. Plan now and get things together before the power fails. Useful items include: extra blankets and towels, candles, flashlights and batteries, matches, battery powered radio, propane camp cooking stove, propane or kerosene heater, extra fuel, aluminum foil, extra food, hats and gloves, power inverter, marine battery or extra car battery, battery charger, buckets with tight-fitting lids, 2 liter bottles filled with water. If power failure is likely, keep your house warmer than usual to store heat in the structure of your home and its contents.

Bundle up your body! Wear several loose layers of clothes. Don't forget a hat, even when you are indoors! If you must go outside, beware of wind and wet. Keep dry. Wet clothing loses its ability to insulate, and can suck heat right out of you. Stay out of the wind as much as possible. Make sure your head, hands, and feet are protected. Clean clothes keep you warm better than dirty clothes.

Don't try to heat the entire house. Gather everybody into 1 or 2 rooms and don't forget pets. The kitchen and an adjacent room are a good choice. Close doors and hang blankets over doorways. Use plastic sheets, blankets, quilts, aluminum foil & newspapers over windows. Look for leaks and drafts and use cloth, newspapers, caulk, or weatherstripping to close them. (However, don't seal the room so tight that no fresh air can get in. Even if it is cold, you need fresh air to stay alive.) Insulate floors with blankets, newspapers, and rugs. **Get Neighbors together in 1 house or apartment.** Each human body radiates about 100 watts of heat. We're all familiar with the way a crowded room gets warm, so put that to work for you to stay warm during a winter emergency.

Safety first!

Ventilation and attention to safety details are required for open flame heaters such as kerosene or propane heaters. Store fuels like propane and kerosene safely outside of the house or apartment.

Place the propane or kerosene heater in front of the ventilation opening (such as a window open 1/4 inch).

If you place it away from the ventilation, the fumes will first fill the room before they exit from the window. Carbon monoxide and smoke detectors can save lives!

Never use charcoal briquets or Coleman fuel camp stoves inside a house or garage for cooking or keeping warm. People die every year from carbon monoxide poisoning when they fire up charcoal briquets inside the house to keep warm. **There are no exceptions to this rule.**

Never run an electrical generator inside a house or a garage. Always put it outside. Make sure it stays dry and let it cool down before re-fueling it.

Carbon monoxide poisoning is always a risk with open-flame heating indoors. If the room seems "stuffy" and you begin to feel headachy and lethargic and/or your vision gets blurry – get everyone out of the room and ventilate it with fresh air immediately. **Pregnant women, children, and unborn babies are particularly at risk of carbon monoxide poisoning.**

Beware of fire! Place a fire extinguisher where it can be quickly used. If you don't have a fire extinguisher, get a couple of large boxes of baking soda and a bucket of sand. Don't leave candles or open flame heaters burning unattended or while you are sleeping. Make sure candles are in secure holders that can't be knocked over. Keep them away from small children.

Don't keep a gas cook stove burning 24 hours a day for heat. They aren't designed for that. Turn the burners on to warm things up for a couple of hours and then turn them off. Wait a while before you turn them back on. Turn the oven on, at a moderate temperature, for 3 or 4 hours & then turn it off for a while. **Don't leave the oven door open to heat a room.** That

burns out the thermostat and then the stove won't light. While the oven is on, make something good to eat to help you stay warm.

Refrigerator and freezer issues If the temperature is below 42 degrees, take the food from your refrigerator and freezer and put it in an ice chest or other box with a tight lid. Put it outside in a covered place, such as a porch or shed. During the day, keep it in the shade. If it is below freezing most of the day, the frozen food will stay solidly frozen too. However, if frozen food thaws, cook and eat it, or cook it before you re-freeze it. Do not simply re-freeze frozen foods that have thawed; cook them first.

Lights and alternative power Emergency lighting can be candles, flashlights, and lanterns. To increase the illumination, put lights in front of a mirror. **DO NOT** go to sleep with candles or lanterns burning. The flame of one candle can generate enough heat to keep a person from freezing to death. Make sure there is nothing burnable close to the candles.

Use a car battery for lights and radios. Brake or back-up lights, electric wire, and a car battery can be an emergency light source. This will cause a car battery to deteriorate faster, but in an emergency, sometimes such risks are worth it. Marine, RV, or golf cart batteries are better choices than car batteries for emergency power. They are designed to be drained slowly and recharged. If you use this set-up indoors, remember that batteries are filled with toxic, corrosive acid. Make sure the kids can't get to them. Large batteries (car, marine, etc.), if used indoors must be in a room that is well ventilated. Keep them well away from open flames.

You can use a power inverter to convert DC battery power to AC power that operates lights, radio, a small television or CD player. DC lights/radios run directly off the battery. A 300 watt inverter runs one or two 100 watt light bulbs and a small radio. A 600 watt inverter powers the equivalent of six 100 watt light bulbs. However, it's best to use compact fluorescent lights with an inverter because they use less electricity. You can get a solar battery charger for small batteries (AAA through D) for about \$20 from www.ccrane.com/more-categories/batteries-chargers/solar-powered-battery-charger.aspx.

When the power goes out, turn off all lights except 1 & unplug electrical appliances. Turn off the heating system. When the power comes back on, there may be power surges that can damage equipment. Leave one light on so you know when the power comes back.

The sun is your friend! Open the curtains when the sun shines directly through the windows. If the windows are dirty, clean them – more light will pass through them and thus you will have more heat from the sun. Cut pieces of cardboard so they are the same sizes as your south facing windows. Cover the cardboard with aluminum foil. Place them outside the south windows straight out horizontally from the window ledge so that the light which hits the ground in front of the window is reflected into the window. As the sun moves in the sky, and light no longer shines directly through a window, cover it with curtains and extra blankets/auto sun shades.

“Store” daytime sunlight for night-time heat by placing bottles of water (or buckets with tight-fitting lids) in direct sunlight coming through your windows. This warms the water. When the sun stops shining on the bottles or buckets, their stored heat will be slowly released. Paint the bottles or buckets black to store more heat. This is free hot water for bathing or washing dishes!

To keep warm at night, bundle up. Use extra blankets. Sleep more than one person in each bed. Wear a cap to bed. Make a “tent” of blankets or sheets over the bed (like the old fashioned “canopy beds”). Or you can make a tent in the middle of a room, and gather the family inside. **DO NOT** use open flame heating inside a tent.

The best place for babies is on their mother's bodies, in their arms or using one of the many ways of carrying a baby and still having your hands free. Check on your elderly and vulnerable neighbors to make sure they are OK.

Food and drink can keep your warm! Drink a lot of water, and eat frequent meals with lots of carbohydrates. Soups, casseroles, bread, biscuits and gravy are comfort foods for stressful conditions that also give you extra fuel to stay warm. Besides natural gas stoves (which work when the power is out), you can cook inside with propane camp stoves, a wood burning stove or fireplace. You can warm food over candles or cans of sterno or chafing dish fuel. You can cook outside on a gas grill. **Don't pour any heat down the drain in the form of hot water!** Let hot water cool to room temperature before draining, and you get more heat and humidity in the house. If the air is really dry, put a pot or kettle of water on the stove and keep it at a low simmer.

Newspapers are great for emergency insulation. Just ask anyone who's been homeless. They can be wrapped around legs, arms, torso, taped over windows, laid on the floor, or layered between blankets. More layers = more insulation. Auto sun shades can be hung over the inside of windows to reflect heat back into the room.

Beware of the tendency to resort to bad habits when under stress.

This information is provided as a public service, and has been compiled from credible sources, but responsibility for use of this information is with the reader. Use it at your own risk. Your mileage may vary. Bob Waldrop, www.energyconservationinfo.org .