Eating and Keeping Food Safe During Summer and Winter Storms

Barbara J. Brown, PhD, RD/LD
Food Specialist

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How to Cook if the Power Goes Out

During an emergency, cooking and eating habits change to fit the situation. There may not be a refrigerator or a stove, and the water supply may be limited. In addition, health risks from contaminated or spoiled food may increase. When preparing food, consider the following:

Cooking time needed for a particular food

For example, ground beef needs to reach 160° F inside the meat. Color change is not enough to tell if a safe temperature has been reached, so use a thermometer. Whole poultry should be cooked to 165° F for doneness. If there is limited fuel for cooking, choose food that cooks quickly, or serve food that requires no cooking.

Amount of food to prepare

Prepare only the amount of food needed for one meal. When left at room temperature milk, meat, soups, pasta, legumes, and vegetables can spoil and cause foodborne illness when eaten.

Cooking methods available

Fireplace or wood stove. Cooking in a fireplace is alright if the chimney is sound and the flu is open. Do not start a fire in a fireplace that has a broken chimney. If using a wood stove, make sure the stovepipe has not been damaged and the flue is open. Grill the food or wrap it in foil to cook. Fuels for cooking include: wood, tightly rolled newspapers, and logs made of pressed wood particles. **Never use charcoal as fuel for indoor fires; the carbon monoxide from burning charcoal is very dangerous.**

Camp stove. Use only outside the house, not indoors or in the garage. Propane and butane fires are difficult to extinguish and could easily get out of hand. A dry chemical extinguisher puts out gasoline or oil fires, but not butane or propane fires. There is little to put out propane or butane fire except shuting off the gas. Learn where the shut-off valve is before lighting a camp stove.

Charcoal grill. Charcoal can be used to cook meats and vegetables in foil and to prepare one-pot meals. Charcoal outside, since inadequate ventilation makes indoor cooking with charcoal dangerous.

Gas grill. Never use a gas grill indoors. Use the grill at least 10 feet away from any building. Do not use the grill in a garage, under a carport, on a porch, near dry vegetation, or under a surface that can catch fire.

Outdoor fires. If building a fire outside, build it away from buildings never in a carport. Sparks can easily get into the ceiling and start a house fire. Make sure any fire is well contained. A metal drum or stones around the fire bed are good precautions. A charcoal grill is a good place in which to build a wood fire. Never use gasoline to get a wood or charcoal fire started. Be sure to put out any fire when you are finished with it.

Fondue pot or chafing dish. These pieces of equipment can be used inside as long as the fuel heating them is approved for indoor use, such as sterno. Do not plan on using these to cook raw foods that have to be thoroughly cooked to be safe—for example, raw meats, poultry, seafood, eggs, and dishes containing them or home canned meats or vegetables.

Small electrical appliances. May be used to prepare meals if there is access to an electrical generator.

No-Cook Food Suggestions

Prepare peanut butter sandwiches, crackers with commercially canned meats, fish, or vegetables, chips, fresh fruits or vegetables, and unopened cans of fruit or pudding.

Commercially canned meats and vegetables and all canned fruits can be eaten right out of the can

Home canned meats and vegetables need to be boiled at least ten minutes before they are tasted to eliminate the risk of botulism poisoning. If you are located at an elevation over 1,000 feet, add one minute per thousand feet of altitude to the boiling time. If you heat the food in the can, be sure to open the can and remove the label first. When cooking is not possible, many commercially canned foods and home canned fruits can be eaten cold.

Keeping Food Safe During a Power Outage

Sooner or later, every home has a power outage. The electricity may go off during a winter storm, thunderstorm, or tornado or the refrigerator may simply quit working. Whatever the cause, dealing with the food involved when the unit is off requires knowledge of food safety.

Use the following guidelines to save as much food as safety permits:

Keep the freezer door closed

Keep what cold air there is inside. Do not open the door any more than necessary. A full freezer will stay at freezing temperatures about 2 days; a half-full freezer about 1 day. If your freezer is not full, group packages so they form an "igloo" to protect each other. Place them to one side or on a tray, so that if they begin thawing, their juices will not get on other food. And, if the power will be out for several days, try to find some dry ice. Although dry ice can be used in the refrigerator, block ice is better. You can put it in the refrigerator's freezer unit along with your refrigerated perishables such as meat, poultry, and dairy items.

Handling Dry Ice

- To locate a distributor of dry ice, look under "ice" or "carbon dioxide" in the phone book.
- Buy 25 pounds of dry ice to keep a 10 cubic foot freezer full of food safe for 3 or 4 days; half full, 2 to 3 days. A full 18 cubic-foot freezer requires 50 to 100 pounds of dry ice to keep food safe 2 days; half full, less than 2 days.
- Handle dry ice with caution and in a well-ventilated area. Do not touch it with bare hands; wear gloves or use tongs. Wrap dry ice in brown paper for longer storage. One large piece lasts longer than small ones.
- The temperature of dry ice is -216° F; therefore, it may cause freezer burn on items located near or touching it. Separate dry ice from the food using a piece of cardboard.

Even if food has started to thaw, some foods can be safely kept

The foods in your freezer that partially or completely thaw before power is restored may be safely refrozen if they still contain ice crystals or are still 40° F or below. You will have to evaluate each item separately. Generally, be very careful with meat and poultry products or any food containing milk, cream, sour cream, or soft cheese. When in doubt, throw it out.

Many foods can be refrozen without much change in taste

Partial thawing and refreezing may reduce the quality of some foods. Raw meats and poultry from the freezer can usually be refrozen without too much quality loss. Prepared foods, vegetables, and fruits can normally be refrozen, but there may be some quality loss. Fruit juices can be refrozen safely without much quality loss, but frozen fruit will become mushy.

In general, refrigerated items should be safe as long as power is out no more than 4 hours. Keep the door closed as much as possible. Discard any perishable foods (such as meat, poultry, fish, eggs, and leftovers) that have been above 40° F for 2 hours or more, and any food that has an unusual odor, color, texture, or feels warm to the touch.

Keep an appliance thermometer in the refrigerator and freezer at all times

This will remove the guesswork of just how cold the unit is because it will give the exact temperature. The key to determining the safety of foods in the refrigerator and freezer is to know how cold they are. The refrigerator temperature should be 40° F or below and the freezer 0° F or lower.

Be prepared for all power outages

If you live in an area where loss of electricity from summer or winter storms is a problem, plan ahead to be prepared for the worst.

- Stock up on shelf-stable foods—canned goods, juices, and "no-freeze" entrees.
- Plan ahead how you can keep foods cold. Buy some freeze-pak inserts and keep them frozen. Buy a cooler. Freeze water in plastic containers or store bags of ice.
- Know in advance where to buy dry and block ice.
- Develop emergency freezer-sharing plans with friends in another part of town or in a nearby area.

These are rule-of-thumb guides. For the actual handling of specific foods, follow the instructions in the OSU Facts publications T-3505 "Frozen Foods: When to Save and When To Throw Out" and T-3506 "Refrigerated Foods: When to Save and When To Throw Out." Be sure to discard any fully cooked items in either the freezer or the refrigerator that have come into contact with raw meat juices. Remember, do not rely on appearance or odor. Never taste food to determine its safety! Some foods may look and smell fine, but if they have been at room temperature too long, bacteria that cause foodborne illness can begin to grow very rapidly. Some types will produce toxins that are not destroyed by cooking.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0307.