



Cornell University Cooperative Extension of Delaware County

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FOOD SAFETY WHEN THE POWER GOES OUT

Power outages probably are the most common problem facing households during a natural disaster or emergency.

Refrigerated Foods

Generally, food in the refrigerator is safe as long as the power is out no more than a few hours. Keep the door closed; food will remain chilled for 4-6 hours if the door is not opened. When power is restored, check all the food according to the following guidelines:

Foods can be stored at room temperature (above 40° F) a few days:

- Butter and margarine
- Hard and processed cheeses
- Fresh fruits and vegetables
- Fruit juices
- Dried fruits and coconut
- Fresh herbs and spices
- Opened jars of salad dressing, peanut butter, jelly, relish, taco sauce, barbecue sauce
- Mustard, ketchup and olives
- Flour and nuts
- Fruit pies
- Bread, rolls, cakes and muffins

Foods to Discard:

Other refrigerated foods stored above 40° F over 2 hours should be discarded. Throw away moldy items or food with an unusual odor or appearance. The following foods are often implicated in causing food borne illness and should be discarded if stored above 40° F for over 2 hours:

- Raw or cooked meat, poultry and seafood
- Meat-topped pizza, lunch meat
- Casseroles, stews or soups
- Milk/cream, yogurt, soft cheese
- Mayonnaise, tartar sauce, or creamy dressings
- Cooked pasta, potato, rice, and salads prepared from these foods
- Refrigerator and cookie dough
- Fresh eggs, egg substitutes
- Cream-filled pastries
- Custard, chiffon or cheese pies
- Gravies

Frozen Foods

Foods in a full freezer will stay frozen for about 2 days; a half-full freezer for about 1 day. The kind of food in the freezer makes a difference. For instance, foods with a high water content, such as meat, or fruit, will stay frozen longer than food with a low water content, such as bread. Beyond this, you need to take some precautions:

- Keep the door closed
- Call a freezer locker plant to see if it is operating and, if so, whether it has room for your food. If space is available, wrap the food in newspaper or blankets and rush it to the locker plant.
- If locker space is not available, use dry ice if you can get it. Allow 2 to 3 pounds of ice per cubic foot of freezer space. A 25-lb block of dry ice should keep a half-full 10-cubic-ft cabinet below freezing for 2-3 days. A fully loaded cabinet will stay frozen 3-4 days if dry ice is added soon after the power goes out. A 50-lb block should keep food safe in a full 18-cubic-ft freezer for 2 days.

- To pack the freezer with dry ice:
 1. Always use gloves when handling dry ice. Wrap it in brown paper for longer storage.
 2. Move any food from the freezing compartment to the storage compartment of the freezer.
 3. Put heavy cardboard directly on the packages of frozen food and place dry ice on top of cardboard. In upright freezers, place dry ice on each shelf.
 4. Fill partly empty freezer with crumpled paper to lessen air currents, which cause dry ice to dissipate.
 5. Cover the freezer with blankets, quilts, adding crumpled newspaper for added insulation. Be sure air vent openings are left open to allow gas from dry ice to escape. In addition, the power may be restored and ventilation will be needed.

What To Do With Frozen Food If It Thaws

Despite your best efforts, the food in your freezer may partially or completely thaw before power is restored. Foods may be safely refrozen if they still contain ice crystals. Partial thawing and refreezing reduces the quality of foods, particularly fruits, vegetables and prepared foods. Foods which have completely thawed, but are still cold – about 40° F (and have been held at this temperature no longer than 1 or 2 days after thawing) – may be refrozen if the following criteria are met:

- Fruits – may be refrozen if they still taste and smell good. Fruits beginning to ferment are not dangerous to eat, but will have an off-flavor.
- Vegetables – should not be refrozen if thawed completely since bacteria multiply rapidly in these foods. If ice crystals are present, refreezing is possible.
- Meat and poultry – should be discarded if the color or odor is poor or questionable or if the meat temperature has exceeded 40° F for 2 hours. Unspoiled meat may be cooked and then refrozen.
- Fish and shellfish – should not be refrozen if thawed completely since these foods are extremely perishable. May refreeze if ice crystals are present.
- Frozen dinners and ice cream – Do not refreeze

At times, the only practical solution is to can thawed food to save it. Keep canning supplies on hand, keep canning equipment in good working order, and use current canning instructions.

For further information contact Jeanne Darling, Cornell Cooperative Extension 607-865-6531 or email delaware@cornell.edu.