

Help! My Refrigerator or Freezer Stopped Working. Is My Food Safe?

A food safety guide after a power failure or appliance problem

Fact Sheet FS1178



Cooperative Extension

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Power failures, doors left open, and appliance breakdowns are reasons for a refrigerator or a freezer to stop working properly. When this occurs, the quality and safety of food or beverages in your refrigerator or freezer is in question. You need to decide if the food is safe.

Is the Food Safe to Eat?

The answer is not simple; however these guidelines and food charts will help you decide if a food is safe. You must evaluate each food separately.

Health and Safety First

Staying healthy is most important. If you get sick from eating an unsafe food, the cost of going to a doctor or hospital will cost more than the cost of replacing the food. Young children, older adults and people with serious illnesses or weakened immune systems are more at risk for foodborne illness. They may get sick sooner, have more serious symptoms or die.

A food may look, smell, and taste good, but still contain unsafe amounts of pathogens or toxins (poisons produced by bacteria). Cooking is not guaranteed to make the food safe. **The golden rule of food safety is "when in doubt, throw it out", never taste the food!**

Answer these Questions to Decide If a Food Is Safe:

What is the freezer or refrigerator temperature at now?

Keep a thermometer in the refrigerator and freezer areas to monitor the temperature.

- The freezer should be at 0°F or below.
- The refrigerator should be at or below 40°F.

If the temperature is higher than these recommendations, then the food will start to thaw and/or spoil more rapidly. The warmer the temperature, the faster bacteria will grow in the food.

How much time has passed since the power went out or the appliance failed?

- Write down the time when the power went off and the time the power went back on. How long was the power off? If you don't know, give it your best guess. For example was the power out 1 hour or 20 hours?
- Refrigerated food should be above 40°F for no more than 2 hours. Longer times may allow bacteria to grow.
- A full refrigerator with the door closed will hold its temperature for about 4 hours.

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- A full freezer with the door closed will hold its temperature for about 2 days, a half-full freezer about 1 day. A full stand-alone freezer may stay cold even longer. If the freezer is not full, stack packages together to keep the food colder and fill empty space with ice packs or bags of ice. Put trays under food because it may drip when thawing.

Refrigerator. Does food feel cold?

- Check the temperature of refrigerator foods, as soon as the power goes back on.
- If possible, use an instant read thermometer to check the temperature of foods. It is easy to test milk or leftovers with an instant read thermometer. Do other foods feel cold to the touch?
- Cold foods (40°F or less) may still be safe. Once foods exceed 40°F, many will remain safe for only 2 more hours.
- Use the food chart to determine which foods to keep and which to discard.

Freezer. Is the frozen food still hard to the touch? Does it have ice crystals in it? Is it cold?

- Don't open the freezer when the power is off, but do inspect freezer foods immediately after the power goes back on. If you wait too long, the food will be cold or freeze again and you will not be able to tell if it has thawed.
- Food that is partially frozen or contains ice crystals may be refrozen or used.
- Food that is cold, (refrigerator temperature) may be refrozen or used.
- Thawed food loses quality (texture and flavor).
- Discard food that is warm or melted, except for cooked (not raw) baked goods (examples: bread, cookies, cake).
- Use the food chart to determine which foods to keep and which to discard.

What to Do When the Power Goes Off

- Keep the refrigerator or freezer doors closed. Open only as necessary.
- Write down the time when the power went off and the time the power went back on so you will know how long the power off.

- The foods listed below will remain safe without refrigeration (see chart for other foods) so do not worry about keeping them cold. These foods are refrigerated to maintain quality and increase storage time, not to keep them safe.
 - Uncut, fresh fruit and vegetables such as apples, lemons, limes, oranges, carrots, peppers, and broccoli. However, cut produce must be kept cold for safety.
 - Breads, muffins and other baked goods
 - Grated parmesan or Romano cheese
 - Jelly, taco sauce, ketchup, mustard, soy sauce, barbeque sauce, and peanut butter
 - Butter or margarine
- If the power will be off a long time, choose one of these options:
 - Group foods together in the refrigerator or freezer or in a cooler with ice. A cooler is easier to keep cold than the refrigerator. A freezer will stay cold longer with additional ice.
 - Find a friend with extra refrigerator or freezer space.
 - Locate frozen ice packs, block ice or bagged ice. Block ice lasts longer. Add ice or ice packs to the refrigerator and freezer. The more ice, the better. If placing in the refrigerator, place ice in a container to hold the melting water. Replace ice as it thaws.
 - Locate dry ice. Look under "ice" or "carbon dioxide" in the telephone book. Dry ice is very cold (-109.3°F) and can burn skin, so wear protective gloves and follow directions on how to handle it safely. Twenty-five pounds of dry ice should keep a full 10 cubic-foot freezer cold for 3 or 4 days.

Discard Unsafe Food

Unsafe food can make people and animals sick. Do not taste questionable food. Do not feed it to pets or wild animals. Discard food by putting it in a plastic bag and in a closed garbage container. Make sure animals cannot get into it. Wash your hands and surfaces well after handling potentially unsafe food.



REFRIGERATOR FOODS: When to Save and When to Throw It Out

General Rule: As long as the power has been out less than 2 hours, all foods will be safe. Otherwise consult the chart below.

FOOD	Held above 40°F for over 2 hours
MEAT, POULTRY, SEAFOOD	
Fresh or leftover meat, poultry, fish, or seafood	Discard
Thawing meat or poultry	Discard
Meat, tuna, shrimp, chicken or egg salad	Discard
Gravy, stuffing, broth	Discard
Lunchmeats, hot dogs, bacon, sausage, dried beef	Discard
Pizza – with any topping	Discard
Canned hams labeled "Keep Refrigerated"	Discard
Canned meats and fish, opened	Discard
CHEESE	
Soft Cheeses: Blue/Bleu, Roquefort, Brie, Camembert, Cottage, Cream, Edam, Monterey Jack, Ricotta, Mozzarella, Muenster, Neufchatel, Queso Blanco, Queso Fresco	Discard
Hard Cheeses: cheddar, Colby, Swiss, Parmesan, Provolone, Romano	Safe
Processed Cheeses	Safe
Shredded Cheeses	Discard
Low-fat Cheeses	Discard
Grated Parmesan, Romano, or combination (in can or jar)	Safe
DAIRY	
Milk, cream, sour cream, buttermilk, evaporated milk, yogurt, eggnog, soy milk	Discard
Butter, margarine	Safe
Baby formula, opened	Discard
EGGS	
Fresh eggs	Discard
Hard-cooked in shell, egg dishes, egg products	Discard
Custards and puddings	Discard
CASSEROLES, SOUPS, STEWS	Discard
FRUIT	
Fresh fruits, cut	Discard
Fruit juices, opened	Safe
Canned fruits, opened	Safe
Uncut fresh fruits, coconut, raisins, dried fruits, candied fruits, dates	Safe

FOOD	Held above 40°F for over 2 hours
SAUCES, SPREADS, JAMS	
Opened mayonnaise, tartar sauce, horseradish	Discard if above 50°F for over 8 hours
Peanut butter	Safe
Relish, taco, barbecue & soy sauce, mustard, catsup, olives, pickles	Safe
Jelly, jam	Safe
Fish sauces (oyster sauce)	Discard
Opened vinegar-based dressings	Safe
Opened creamy-based dressings	Discard
Spaghetti sauce, opened jar	Discard
BREAD, CAKES, COOKIES, PASTA, GRAINS	
Bread, rolls, cakes, muffins, quick breads, tortillas	Safe
Refrigerator biscuits, rolls, cookie dough	Discard
Cooked pasta, rice, potatoes	Discard
Pasta salads with mayonnaise or vinaigrette	Discard
Fresh pasta	Discard
Cheesecake	Discard
Waffles, pancakes, bagels	Safe
PIES, PASTRY	
Pastries, cream filled	Discard
Pies – custard, cheese filled, or chiffon; quiche	Discard
Pies, fruit	Safe
VEGETABLES	
Dried mushrooms, herbs, spices	Safe
Fresh mushrooms	Discard
Greens, pre-cut, pre-washed, packaged	Discard
Whole vegetables, raw	Safe
Vegetables, cooked	Discard
Vegetable juice, opened	Discard
Baked potatoes	Discard
Commercial garlic in oil	Discard
Potato salad	Discard
OTHER	
Baby formula, opened	Discard
Soda, opened	Safe

FROZEN FOOD: When to Save and When To Throw It Out

General Rule: Frozen foods that still contain ice crystals or are at 40° F or below may be refrozen without much loss of quality. Follow the guidelines in the chart below for individual foods. Discard any fully cooked food that has come in contact with raw meat, poultry or seafood juices.

FOOD	Partially thawed. Still contains ice crystals. Or thawed and feels cold, as if refrigerated.	Thawed. Held above 40° F for over 2 hours.
MEAT, POULTRY, SEAFOOD		
Beef, veal, lamb, pork, and ground meats	Refreeze	Discard
Poultry and ground poultry	Refreeze	Discard
Variety meats (liver, kidney, heart, chitterlings)	Refreeze	Discard
Casseroles, stews, soups	Refreeze	Discard
Fish, shellfish, breaded seafood products	Refreeze. However there will be some texture and flavor loss.	Discard
DAIRY & EGGS		
Milk	Refreeze. May lose quality.	Discard
Eggs (out of shell) and egg products	Refreeze	Discard
Ice cream, frozen yogurt	Discard for quality	Discard
Cheese (soft and semi-soft)	Refreeze. May lose some texture.	Discard
Hard cheeses	Refreeze	Refreeze
Shredded cheeses	Refreeze	Discard
Casseroles containing milk, cream, eggs, soft cheeses	Refreeze	Discard
Cheesecake	Refreeze	Discard
FRUIT		
Fruit Juices	Refreeze	Refreeze. Discard if mold, yeasty smell or sliminess develops.
Home or commercially packaged fruit	Refreeze. Will change in texture and flavor.	Refreeze. Discard if mold, yeasty smell or sliminess develops.
VEGETABLES		
Vegetable Juices	Refreeze	Discard after held above 40°F for 6 hours.
Home or commercially packaged or blanched.	Refreeze. May suffer texture and flavor loss.	Discard after held above 40°F for 6 hours.

FOOD	Partially thawed.	Thawed.
BREADS, PASTRIES		
Breads, rolls, muffins, cakes (without custard fillings)	Refreeze	Refreeze
Cakes, pies, pastries with custard or cheese filling	Refreeze	Discard
Pie crusts, commercial and home-made bread dough	Refreeze. Some quality loss may occur.	Refreeze. Quality loss is considerable.
OTHER		
Casseroles – pasta or rice based	Refreeze	Discard
Flour, cornmeal, nuts	Refreeze	Refreeze
Frozen meal, entree, specialty items (pizza, sausage and biscuit, meat pie, convenience foods)	Refreeze	Discard

* Charts adapted from Food Safety and Inspection Service (FSIS) "Keeping Food Safe During an Emergency" fact sheet. Available at fsis.usda.gov

Homemade Ice Packs

Fill clean quart or half gallon plastic containers (juice and soda bottles work well) with water, leaving a couple of inches free for ice expansion during freezing. Freeze and store several ice packs in the freezer for use when traveling, camping or emergencies. These solid ice packs thaw more slowly than ice cubes. You may also drink the water as it thaws.

For More Information:

- Rutgers Cooperative Extension Website: njaes.rutgers.edu
- Food Safety and Inspection Service Website: fsis.usda.gov
- FightBAC!™ Website: fightbac.org
- USDA Meat & Poultry Hotline: Weekdays 10 to 4 PM EST, 1-800-535-4555
- Food & Drug Administration Food Information Line: 888-SAFE FOOD



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