



## Keeping Food Safe During an Emergency

Prepared by MSU Extension Food Safety Area of Expertise Team; edited by Joyce McGarry, MSU Extension

**B**acteria are present all around us — on our bodies, in food and on cooking utensils. In small amounts, these bacteria are harmless. In large numbers, these bacteria may cause food poisoning. At temperatures below freezing, most bacteria that cause food-borne illness survive, but do not grow. Refrigeration at 40 degrees F, or below, allows only the slow growth of bacteria. As the storage temperature of perishable food rises above 40 degrees, the rate of bacterial growth increases. After these foods are left more than 2 hours above 40 degrees, there is a strong chance that the number of bacteria has risen to a level that can cause food poisoning.

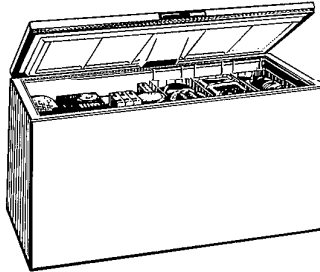
Knowing how to determine if food is safe and how to keep food safe will help minimize the potential loss of food and reduce the risk of food-borne illness.

### During a power outage

Keep the refrigerator or freezer door closed to keep the cold air inside. Do not open the door any more than necessary. Cover the appliance with blankets, sleeping bags or comforters to keep cold in. A full free-standing freezer will stay at freezing temperatures about 2 days; a half-full freezer about 1 day if left closed. Foods with higher water content will stay frozen longer. For example, a freezer full of meat will not warm as quickly as a freezer full of bread. Keep the temperature of the freezer at 0 degrees or lower; the colder the food, the longer it will stay frozen.

Refrigerated food will usually remain refrigerator-cool from 4 to 6 hours, depending on the room temperature.

To keep the refrigerator cool, set a block of ice or bag of ice cubes in a pan on the bottom shelf.



### Power Out Chart

Keep an appliance thermometer in both the refrigerator and freezer at all times — keep refrigerator at 40 degrees F and freezer at 0 degrees F

You cannot rely on appearance or odor. Never taste food to determine its safety.

Some foods may look and smell fine, but, if they have been warm too long, they may contain food poisoning bacteria in quantities that could make you sick.

Foods labeled “refrigerate after opening” are perishable and should be discarded if they have been without refrigeration for more than 2 hours. Those that do not require refrigeration either before or after opening may be refrigerated again.

**Discard:** The following should be discarded if kept over two hours above 40 degrees F

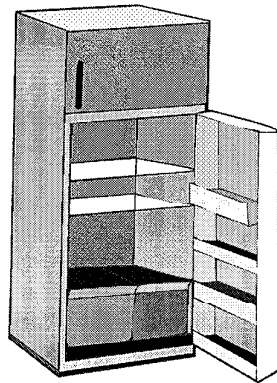
- Meat, poultry, fish, eggs and egg substitutes — raw or cooked.
- Milk, cream, yogurt and soft cheese, shredded cheese.
- Casseroles, stews or soups.
- Lunch meats and hot dogs.
- Creamy-based salad dressings.
- Custard, chiffon or cheese pies.
- Cream-filled pastries.
- Refrigerator and cookie dough.
- Discard open mayonnaise, tartar sauce and horseradish if above 50 degrees F for over eight hours.

**Save:** The following foods should keep at room temperature a few days. Discard anything that is moldy or has an unusual odor.

- Butter or margarine.
- Processed and hard cheese.
- Fresh fruits and vegetables.
- Dried fruits and coconut.

- Opened jars of vinegar-based salad dressings, jelly, relish, taco sauce, barbecue sauce, mustard, ketchup, olives and peanut butter.
- Fruit juices, unopened.
- Fresh herbs and spices.
- Fruit pies, bread, rolls and muffins.
- Cakes, except cream-cheese frosted or cream-filled.
- Flour and nuts.

Allow time for refrigerators to reach the proper temperature below 41 degrees before restocking.



### Remember, when in doubt, throw it out!

Source: Clemson University Extension. Home & Garden Information Center.

#### For more information about safe food handling and preparation:

FDA's Food Information Hotline  
1-888-SAFEFOOD (1-888-723-3366)

USDA's Meat and Poultry Hotline  
1-800-535-4555

FDA's Food Information and Seafood Hotline  
1-800-332-4010

United States Food Safety Web Site  
[www.foodsafety.gov](http://www.foodsafety.gov)

The Food Domain. Michigan State University  
[www.fooddomain.msu.edu](http://www.fooddomain.msu.edu)

Extension Disaster Education Network  
[www.eden.lsu.edu](http://www.eden.lsu.edu)

Federal Emergency Management Agency  
[www.fema.gov](http://www.fema.gov)

### From the freezer

**Meats and poultry** — Discard if the color or odor is questionable. Thawed meat and poultry should be thoroughly cooked before refreezing and used as soon as possible.

**Fruits (including juices)** — Refreeze only those that look and smell acceptable.

**Vegetables** — Thoroughly cook and serve thawed vegetables immediately or refreeze after cooking.

**Fish and shellfish** — Discard, these highly perishable foods may be spoiled even if there is no bad odor.

**Ice cream** — Do not use melted ice cream.

**Baked goods** — Breads, cakes and pastries without custard fillings may be refrozen, but use as soon as possible.

Casseroles, pies, combination salads, and stews, should be cooked and reheated thoroughly and served immediately.



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