

Food Safety In Power Outages



We keep food in the refrigerator to prevent spoiling and cook it to kill bacteria. Disasters such as large fires, earthquakes or severe storms can result in the loss of power for days, preventing normal food preparation. Plan now to ensure the members of your household can eat without refrigeration or cooking.

Refrigerator and Freezer

Food in a refrigerator begins to spoil after 4 hours without power. Only open the door briefly to remove an item to keep cold air inside during that time.

Frozen food remains safe for over 24 hours. However, frozen food usually requires cooking to kill bacteria. Never refreeze thawed food because of bacteria growth during the unfrozen period. When in doubt, throw it out.

Test for Defrosting

Freeze a small container of water, place a coin on top of the ice and keep it in the freezer. If the coin moves into the center or bottom of the ice, food must be discarded because the ice (and food) melted and refroze.

Plan for Essential Refrigerated Items

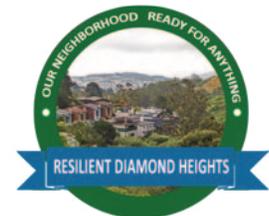
Keep an insulated cooler on hand if someone needs refrigerated medicine or baby formula. Select the smallest size that holds the items, because smaller coolers (such as those for drinks) require less ice than picnic-sized coolers. Keep one or more sealed gel-ice packs in the freezer. Move the ice and the essential items into the cooler as soon as the power fails. Open the cooler only when needed.

After Power Returns

The infographic on the back page lists items that must be discarded and what can be kept. The refrigerator must be cleaned and disinfected after power returns. See FoodSafety.gov for a larger view of this page.

Gas Cooking Appliances

Natural gas or power outages may prevent cooking with gas appliances that use electric ignition. You might be able to use a match to light a burner if the safety system allows gas flow without power.



FOOD SAFETY BEFORE, DURING AND AFTER A POWER OUTAGE

Know how to keep food safe before during and after emergencies. Hurricanes, tornadoes, winter weather and other events may cause power outages. Follow these tips to help minimize food loss and reduce your risk of foodborne illness.

BEFORE PLAN AHEAD (IF YOU CAN) ...

- Put **appliance thermometers** in your refrigerator and freezer.
- Keep **freezer 0°F** or below
- Refrigerator **40°F** or below
- Freeze **containers of water and gel packs** to help keep food cold if the power goes out.
- Group **foods together** in the freezer to help food stay colder longer.
- Freeze refrigerated items such as leftovers, milk, and fresh meat and poultry that you do not need immediately.
- If you think power will be out for an extended period of time, buy **dry or block ice** to keep the fridge or freezer cold.
- Store nonperishable foods on higher shelves to avoid flood water.

DURING WHILE THE POWER IS OUT ...

- Keep the refrigerator and freezer doors closed to maintain cold temperature.
- IF DOORS STAY CLOSED ...
 - ... a full freezer will hold its temperature for **48 HOURS** **24 HOURS** if half-full
 - ... a fridge will keep food safe for **4 HOURS**

AFTER ONCE THE POWER IS BACK ON ...

WHEN IN DOUBT, THROW IT OUT!

Check the temperature inside of your refrigerator and freezer. If they're still at safe temperatures, your food should be fine.

Never taste food to determine its safety!

WHAT CAN I KEEP?

The following foods are safe if held above 40 °F for more than 2 hours:

- Hard cheeses (Cheddar, Colby, Swiss, Parmesan, Provolone, Romano)
- Grated Parmesan, Romano, or combination (in can or jar)
- Butter or margarine
- Opened fruit juices
- Opened canned fruits
- Jelly, relish, taco sauce, mustard, ketchup, olives, pickles
- Worcestershire, soy, barbecue, and teriyaki sauces
- Peanut butter
- Opened vinegar-based dressings
- Bread, rolls, cakes, muffins, quick breads, tortillas
- Breakfast foods (waffles, pancakes, bagels)
- Fruit pies
- Fresh mushrooms, herbs, and spices
- Uncut raw vegetables and fruit

WHAT SHOULD I THROW OUT?

- Meat, poultry or seafood products
- Soft cheeses and shredded cheeses
- Milk, cream, yogurt, and other dairy products
- Opened baby formula
- Eggs and egg products
- Dough, cooked pasta
- Cooked or cut produce

REFREEZE FOOD THAT STILL CONTAINS ICE CRYSTALS OR IS AT 40°F OR BELOW.

AFTER A FLOOD FOLLOW THESE STEPS AFTER A FLOOD:

- DO NOT EAT any food that may have touched flood water.
- DISCARD FOOD not in waterproof containers: screw-caps, snap lids, pull tops, and crimped tops are not waterproof.
- DISCARD cardboard juice/milk/baby formula boxes and home canned foods
- DISCARD any damaged cans that have swelling, leakage, punctures, holes, fractures, extensive deep rusting, or crushing/denting severe enough to prevent normal stacking or opening.
- Sanitize: 1 tbsp. bleach + 1 gallon water
- Pots, pans, dishes and utensils
- Undamaged all-metal cans after removing labels

For more food safety tips, go to FoodSafety.gov

USDA Ad Council

USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER

Stock Non-Perishable Foods

Keep a 5-day supply of food that does not need cooking in your Shelter Kit or a separate area of your pantry. Grocery store shelves will clear within hours of a disaster, so there is little chance of buying food after the fact. Replace food if you “borrow” it from your emergency supply. Select food you enjoy to help keep spirits up when eaten for several days. Apply labels with the “use by” date on each package to simplify keeping it fresh. Use food that is about to expire to eliminate waste, and then replace it.

Canned Food

Canned food does not require cooking, even though it may be less appealing unheated. Canned beans, soup, stew, meat, fish, and fruits or vegetables work well in your emergency supply. Do not use if can is dented or swollen. Remember to have a manually operated can opener.

Nutrition Considerations

Survival requires 1500 to 3000 calories per person per day, depending on activity levels. The lower level applies if you will spend your day with little activity. The higher level is needed if you are involved with making repairs, search and rescue, or other physical activities.

Study nutritional labels as you select your food for the best balance of nutrients. Foods high in carbohydrates may be less expensive, but tend to burn off quickly, making hunger more noticeable. High activity requires more protein, as it helps build and maintain muscle strength. Protein levels of 15-30 grams per meal support strenuous activity.

Also consider household dietary restrictions or food allergies, because packaged foods often depend on nuts, whey, or soy for protein.

Energy vs Protein Products

Bars or shakes have long shelf life and good taste without cooking. “Energy” products have more sugar, for aerobic activity like walking or running. “Protein” products are for bodybuilding or workout recovery, and digest slower for a longer “full time”. The protein products may be more expensive, but are better for heavy activity. Drink plenty of water with nutrition bars to activate the ingredients and reduce chances of constipation.

Pet Food

Buy pet food that does not require refrigeration. Dry food has long shelf life. Canned food remains fresh until opened, but might spoil if left out for a period of time. Have enough food to allow discarding of uneaten food.

Water

Store 5 gallons of potable water per person (1 gallon per person per day for 5 days) for drinking and cooking. Store more if you have pets. You need this water for health, so do not use it for flushing toilets or cleaning. Keep a bot-

tle of hand sanitizer for cleaning hands and a sealed pack of baby wipes for other personal care.

Decontamination

If tap water is contaminated, use a barbecue or camp stove to bring it to a rolling boil for 1 minute and allow it to cool for 30 minutes before drinking.

Chlorine bleach is an alternative to boiling. Never use “scent free” or “scented” (such as lemon) bleach, because the added chemicals are not safe to drink. Add 8 drops of bleach per gallon of water, stir and let sit for 30 minutes before drinking. It should have a faint scent of chlorine.

Camping supply stores sell filters that remove protozoa (parasites) and bacteria from water. Pouring the water through cloth first removes larger particles, extending the life of the filter.

Signs of Dehydration

It is easy to forget to drink enough water, especially if you are involved with strenuous activities.

Watch for these symptoms:

- Not **peeing** or having very dark yellow **pee**
- Very **dry skin**
- Feeling **dizzy**
- **Rapid** heartbeat
- **Rapid** breathing
- **Sunken** eyes
- **Sleepiness**, lack of energy, **confusion** or **irritability**
- **Fainting**

If you experience these symptoms, sit down and slowly sip at least a cup of water or sports drink slowly over a period of 30 minutes. Dehydration over time may require medical attention.

Cooking for Others

If professional feeding agencies have not arrived, neighbors may organize some type of group feeding. Take care to prevent food-borne illness.

These guidelines can help:

- Find people who are professionally trained in food preparation
- Know the source of the food to ensure it has been handled properly
- Do not use meat, dairy, or other food that requires refrigeration
- Sanitize all equipment and tools
- Avoid cross-contamination
 - Food handlers must wear latex or nitrile barrier gloves
 - Never use the same utensils that came in contact with un-cooked food to handle food after it is cooked
- If you use barbecue or camping stoves for cooking
 - Keep them outside, at least 10 feet from living quarters to prevent carbon monoxide poisoning
 - Never re-heat previously cooked food
 - Use thermometers to ensure food has been properly heated

For details about preparing your home or business for disasters see:

[DisasterReadyDHSF.com](https://www.disasterreadydhsf.com) Resilient Diamond Heights (RDH) is part of the Neighborhood Empowerment Network (NEN) empowersf.org