

# DISASTER PREPAREDNESS

## Meals Without Electricity



**During extended power outages, adequate nutrition is still important.** Put together nutritious meals, even when access to refrigeration or electric appliances is unavailable for days or weeks.

### Try to keep a normal routine

Continue to eat at regular times, and choose nutritious foods that cover a variety of food groups and include a mixture of colors.

### Use portable equipment safely

Camping stoves, gas stoves, or outdoor grills are useful appliances for preparing meals when the power is out. Be sure to use these safely.

### Meal planning without electricity

Visit [MyPlate.gov](https://www.myplate.gov) and use the model to help plan meals based on food groups. Also see meal ideas below that do not require power.

### Eat perishables first

If you think power is not returning for several hours or days, plan to eat perishable foods first and non-perishable foods later. Refer to Power Outage materials to learn how long foods can be stored and ways to use ice packs and coolers to extend the length of time foods can remain at safe temperatures.

### Use clean water

Wash hands before preparing food, and wash fresh fruits and vegetables before eating. During a power outage, drinking water should still be available. But if it is not, use bottles or jugs of water.

### Cook small to avoid leftovers

When refrigerators and freezers are not working, plan to cook in small batches as leftovers cannot be saved unless power returns soon after making a recipe.

Avoid opening multiple containers of canned or bottled foods, as many of these foods become perishable once opened.

### Learn which foods can safely remain unrefrigerated

For example, fresh, uncut fruits and vegetables can be stored at room temperature. Once cut, their leftovers need to be refrigerated.

If you have internet access, visit [foodsafety.gov](https://www.foodsafety.gov) or download the *FoodKeeper* app for full lists.

### Breakfast ideas



#### Dry cereal and milk with canned peaches

Use milk within 4 hours of power outage, or use powdered or ultra-high temperature milk.



#### Yogurt and fresh berries with granola

Use yogurt within 4 hours of when power went out. Wash berries with water before eating.



#### Avocado bread with applesauce

Top whole-grain bread with sliced avocados and black pepper; serve with canned applesauce.



#### Bagel and banana

Spread peanut butter on a whole-grain bagel and top with sliced bananas.



## Lunch ideas



### Salad and sandwich

Open and drain a can of chickpeas. Mash with avocado, onion, and dry spices. Serve on bread or crackers.

**Serve with:** A simple tomato and lettuce salad with vinegar-oil dressing. *Remember to wash all produce before eating.*



### Tuna and crackers

Drain canned or foil-packed tuna and eat with whole-grain crackers.

**Serve with:** Dehydrated veggie chips, such as beets, carrot, and sweet potato.



### Cold taco salad

Drain canned chicken, black beans, and corn. Mix with bottled salsa, and serve with tortillas or tortilla chips.

**Serve with:** Canned fruit, such as pineapple, mango, or tropical fruit mix.



### Easy lunch box

Munch on cheese sticks, whole-grain crackers, sliced bell pepper with shelf-stable ranch dressing cups, and raisins.

*Remember to wash bell peppers before eating.*

## Dinner ideas



### Deli sandwich wraps and fresh fruit

Add deli meat, cheese, veggies, and condiments to tortillas. Use deli meats, cheeses, and opened, refrigerated condiments within 4 hours of a power outage.



### Asian-inspired bulgur (wheat) salad

*Requires boiling water.* Cook bulgur by pouring boiled water over the bulgur and letting sit for 15 minutes. Mix in chopped almonds, canned apricots, canned chicken or beans, and chow mein noodles. Top with rice wine vinegar and oil.



### Cobb salad (egg-less option)

To a plate of lettuce, add canned chicken (drained), avocado slices, sliced tomato, and pre-cooked bacon bits. Serve with whole-wheat crackers. If hardboiled eggs are available, add them to the salad. *Remember to wash all produce before eating.*



### Picnic plate

Eat picnic-style with pieces of summer sausage, cheese, olives, nuts, pieces of dark chocolate, pita bread, snap peas, and mandarin oranges. Once packages are opened, use sausage, cheese, and olives within 4 hours of when power went out. *Remember to wash all produce before eating.*

## Snack ideas



### Celery and apple slices with peanut butter

Remember to wash all produce before eating.



### Grapes and jerky

Remember to wash all produce before eating.



### Trail mix of dried fruit, nuts, and dry cereal



### Tortilla chips and packaged salsa



## Food for power outages

When power is out, you can still prepare nutritious meals and snacks. For a complete list of emergency food pantry items, refer to [How to Build an Emergency Food Supply](#).

Keep all non-perishable items in a cool, dry location. Canned foods should be stored between 50 and 70 degrees and away from sunlight, damp areas, vents, pipes, and furnaces to avoid temperature fluctuations.

### Protein

Canned meats and fish (chicken, tuna, salmon) - Dried or canned beans, peas and lentils - Nut butter - Nuts and seeds - Dried meat

### Grains

Rice and pasta - Breads (English muffins, bagels, etc.) - Cereal and oats/oatmeal - Tortillas - Whole-grain crackers - Granola bars

### Fruits

Canned fruits packed in juice - Dried fruit - Fresh fruit with a longer shelf-life (apples, citrus)

### Vegetables

Canned vegetables low in sodium

### Dairy

Shelf-stable milk (aseptic or powdered)

### Other

Pet food - Infant formula, baby food - Bottled water (1 gallon/person/day) - Other bottled beverages or drink mixes - Canned soup, broth - Dried herbs and spices

## Call your local office

Contact your local Illinois Extension office with your food safety questions: [go.illinois.edu/FindILExtension](http://go.illinois.edu/FindILExtension)

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# DISASTER PREPAREDNESS

## Power Outages and Food Safety



**Long-term power outages lasting hours to weeks** can be much more inconvenient than short-term outages lasting seconds or minutes. It is important to know what to do with perishable foods when long-term outages happen.

### How long has the power been out?

Sometimes power outages happen while you are away from home, such as at work or on vacation.

When power comes back on, refrigerators and freezers will work to cool everything down again.

While power was out, food may have been at unsafe temperatures for long enough to spoil food or allow harmful bacteria and microorganisms to grow.

To help detect if power was off for a long time, try this tip from [University of Nebraska Extension](#):

Store an ice cube or two in a sealed plastic bag or small container in the freezer; a sealed bag/container is important so the ice cube doesn't evaporate and disappear. If the ice cube has melted down from its original shape, you'll know the power was off for an extended period of time.

A melted ice cube means power has been out long enough that the safest option is to throw out all the food.

### Thermometers

Invest in refrigerator and freezer thermometers to help you identify food temperatures during a power outage.

- Freezer temperature should be at or below 0°F.
- Refrigerator temperature should be at or below 40°F.

### Refrigerators

During a power outage, refrigerated foods are safe for up to 4 hours. Remember to keep the refrigerator door closed as much as possible.

At the start of a power outage, make a plan to use perishable foods before they become unsafe. Plan your next meal around these foods, and perhaps share with a neighbor.

After 4 hours, throw out perishable foods, such as raw meat, milk, and leftovers.

### Freezers

During a power outage, foods in a half-full freezer are safe up to 24 hours. Like the refrigerator, remember to keep the freezer door closed as much as possible. If the freezer is full, food can stay safe up to 48 hours.

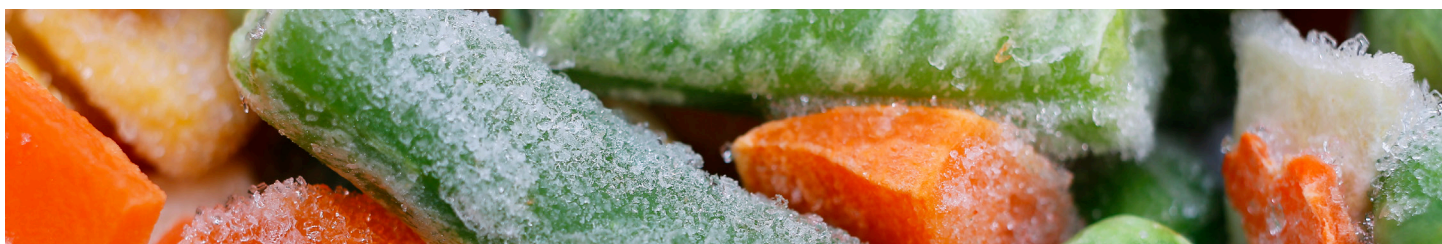
### Refreezing

Once the power returns, foods that have ice crystals or are at 40°F or colder can be refrozen. Be aware that the quality of the food may go down during this slight thaw and refreeze.

### Using ice in freezers and refrigerators

If available, add bags of ice, ice packs, or ice blocks to your refrigerators and freezers to keep foods cold longer.

Group foods close together, but keep raw meat separate from other foods.







## Keep foods at safe temperatures longer

- Move perishable refrigerated foods, such as milk and raw meat, to the freezer.
- Group refrigerated foods together.
- If your refrigerator or freezer has door storage, move foods into the body of the refrigerator or freezer where it is colder.
- Use coolers with lids and ice, ice packs, or ice blocks to store foods.

## When power returns

### ...and you have thermometers

Check the temperature on the thermometer in your refrigerators and freezers.

- If freezer thermometers read 40°F or colder, the food is safe and may be refrozen.
- If refrigerator thermometers read 40°F or warmer, and power has been out for 4 hours or more, throw out all perishable foods.

### ...and you DO NOT have thermometers

- Feel for ice crystals on freezer packages, or place a **food thermometer** – not a freezer thermometer – between packages to see that foods are 40°F or colder. In these cases, foods are safe to refreeze.
- Perishable foods, such as milk, juice, and meats which are above 40°F for 2 hours or more should be thrown out.

## Power outages in winter

When power goes out in winter, do not place perishable food outside. Outside air temperatures may not be cold enough to keep foods at safe temperatures, and as the sun moves throughout the day, it can heat up previously shaded areas.

Avoid sticking food in snow, as this can expose the food to dirt, microorganisms, and animals, which can contaminate the food. *Do not use snow to fill coolers, refrigerators, or freezers.* This can also expose food to contamination.

If the outage is expected to be short, keep food in your refrigerators and freezer, using ice, ice packs, or ice blocks. **Remember, full freezers can keep food safe for around 48 hours.**

## Insurance

Your homeowner's insurance policy may cover and reimburse the cost of food lost during an outage.

## Call your local office

Contact your local Illinois Extension office with your food safety questions: [go.illinois.edu/FindILExtension](https://go.illinois.edu/FindILExtension)

## RESOURCES

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# DISASTER PREPAREDNESS

## Food Safety After Floods



Flood waters may include sewage, debris, agricultural or industrial chemicals, downed power lines, household, medical and industrial waste, disease-causing bacteria and other microorganisms, and other contaminants that can lead to illness or harm.

Flooding can affect food safety, so follow steps to keep you and your family safe before and after flooding. According to the Illinois Department of Natural Resources, **90% of all declared disasters in Illinois are floods.**

### Prepare for flooding

Flooding may cause power outages or difficult travel. If you expect flooding, **put together a three-day water and food supply**, including one gallon of water per person, per day, and ready-to-eat, non-perishable foods.

**Keep water in food-grade containers.** Avoid storing water in containers such as laundry pails or cleaning buckets that are not food-safe. Store food and water in water-resistant containers, such as heavy plastic totes.

If you do not need food or water during a storm, keep them in a cool, dark place in case of a future flood. Once per year, check date labels on products and replenish supplies if needed.

Pack soap for handwashing and a 60% alcohol-based hand sanitizer or wipes. If clean water is unavailable, use hand sanitizer.

### Food safety after flooding

When it is safe to return to your home, begin to sort through food to determine which foods can be kept after disinfecting and which food should be thrown out.

#### Food to throw out after flooding:

Discard food and drink items that were exposed to flood waters and NOT in waterproof containers, such as:

- Screw caps, like bottled water and bottled juice.
- Snap lids, like those often used to store flour, sugar, and other pantry ingredients.
- Pull tops, such as some canned beans, meat, or fruit.
- Crimped caps, such as beer and some juice and soda brands.
- Drinks in cardboard containers, such as milk or juice.

Throw out damaged canned foods that are swollen, leaking, punctured, rusted heavily, crushed, or dented and cannot be stacked without falling over.

#### Food to keep after flooding:

Keep undamaged, commercially prepared food and drink in waterproof packaging, such as all-metal cans, and “retort pouches” such as seafood pouches. Disinfect these packages before opening and eating.





### Disinfecting food and drink packages:

- Remove the labels, if possible.
- Brush or wipe away any dirt from packaging.
- Thoroughly wash packaging with soap and water (preferably hot water).
- Rinse with water that is safe for drinking.
- Sanitize by immersion: place containers in water and bring to a boil for 2 minutes, or use a chemical sanitizer by combining 1 cup of regular, unscented household bleach with 5 gallons of water and soaking containers for 15 minutes.
- Air dry all items for a minimum of 1 hour before opening or storing.
- If labels were removed, write contents and dates on the container. Include sell-by, use-by, and best-by dates on the date label.



### Is water safe to drink after flooding?

Bottled water exposed to flood waters is likely not safe to drink. Lids and seals on most individual bottles and gallon containers are not waterproof. Instead, disinfect water before drinking or using for cooking.

### Can you disinfect water?

Check with your local health department to see if disinfecting water is appropriate. Local agencies may have certain requirements.

Otherwise, allow cloudy water to settle, draw off the clear water, and choose one of these steps to disinfect:

#### **Boiling** (*kills most organisms*)

- Boil water for 1 minute, and let cool.
- Store cooled water in clean containers with covers.

#### **Bleach disinfecting** (*kills some organisms, but not all*)

- Add  $\frac{1}{8}$  teaspoon of regular, unscented household bleach to each 1 gallon of water.
- Stir well, and let stand for 30 minutes before using.
- Store in clean containers with covers.

### Cleaning and sanitizing after flooding

After a flood or water emergency, kitchen equipment needs cleaned and sanitized before use.

#### **Throw out any porous kitchen items that cannot be thoroughly sanitized:**

- ⚠ Wooden utensils, dishes, and cutting boards.
- ⚠ Plastic utensils, plates, and cups.

#### **Sanitize small equipment, such as pots and pans:**

- Wash with soap and clean water.
- Rinse with clean water.
- Sanitize by boiling or immersing for 15 minutes in a solution of 1 tablespoon of regular, unscented household bleach per 1 gallon of water.
- Let all equipment air dry.



## RESOURCES

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## Clean and sanitize kitchen surfaces

- Wash with soap and clean water.
- Rinse with clean water.
- Add 2 tablespoons of regular, unscented household bleach per 1 gallon of water to a spray bottle or bucket.
- Spray the bleach and water mixture on surface or apply with a wet cloth.
- Let all equipment and surfaces air dry. Bleach requires a contact time of at least 1 minute to be effective.
- Remember to label any sanitizer solution in spray bottles or buckets. Bleach solutions should be made fresh each day.

## Kitchen appliances after a flood

Work with an appliance technician or electrician before turning on ovens, refrigerators, or other electronic appliances.

Depending on the damage, they may recommend replacing certain parts or replacing the equipment entirely.

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