

Food Safety for Disaster Preparedness

Fall 2020



Preparation

How To Store an Emergency Food Supply

- Use/replace food before its expiration date.
- The ideal storage location is cool, dry, dark. The best temperature is **40°-70°F**.
- Store foods away from ranges or refrigerator exhausts. **Heat causes many foods to spoil** more quickly.
- **Store food away from petroleum** products, such as gasoline, oil, paints, & solvents.
- Protect food from rodents and insects. Items stored in boxes or in paper cartons will keep longer if they are **heavily wrapped or stored in airtight containers**.
- Store food and water on shelves that will be **safely out of the way of floodwaters**.

Prepare an Emergency Water Supply

- Store at **least 1 gallon of water** per day for each person/pet. Consider storing more water for hot climates, for pregnant women, and sick people.
- Store at least a **3-day supply** of water (and food) for each person and each pet.
- If your bottled water has an odor, do not drink or use it. Instead, dispose of it.
- Observe the expiration date for store-bought water; replace other stored water every 6 months.

Ways to Disinfect Water:

- **Unscented chlorine bleach: Use about 2 drops per quart of water.** Read detailed instructions at the [EPA](#). You can also use bleach for general cleaning, but effectiveness decreases over time, so replace bottle each year.
- **Iodine: Use 5 drops of 2% tincture of iodine to each quart or liter of water.** If the water is cloudy or colored, add 10 drops. Stir and let stand for at least 30 minutes.
- **Water disinfection tablets:** available online or at pharmacies and sporting goods stores.

Preparing for a Power Outage

- Keep **appliance thermometers in your refrigerator and freezer** in case of power outage.
- Check to ensure that the freezer temperature is $\leq 0^{\circ}$ F, and the refrigerator is $\leq 40^{\circ}$ F.
- Purchase or make **ice cubes in advance**, and **freeze gel packs** and **containers of water** to help keep food cold in the freezer, refrigerator, or coolers in case the power goes out. The melting ice in the containers of water will also supply safe drinking water.
- **Freeze refrigerated items** such as leftovers, milk, and fresh meat and poultry that you may not need immediately. This helps keep them at a safe temperature longer.
- **Group food together** in the freezer. This helps the food stay cold longer.
- **Have coolers on hand** to keep refrigerated food cold if the power might be out for more than 4 hours.
- Check out local sources to know where **dry ice and block ice** can be purchased.

During an Emergency

If the Power Goes Out

- Keep the **refrigerator and freezer doors closed** as much as possible to maintain the cold temperature.
 - The **refrigerator** will keep food **cold for about 4 hours** if unopened.
 - A **full freezer** will keep the temperature for **~48 hours** (24 hrs if half full) if the door stays closed.
- Buy **dry or block ice** to keep the refrigerator as cold as possible if the power is going to be out for a prolonged period of time. 50 lb dry ice should keep an 18-cubic-foot, fully stocked freezer cold for 2 days.
- If you plan to eat refrigerated or frozen meat, poultry, fish, or eggs while they are still at safe temperatures, it is important that each item is **thoroughly cooked to a safe minimum internal temperature** to ensure that any foodborne bacteria that may be present are destroyed. However, if at any point the food was $> 40^{\circ}$ F for 2 hours or more (or 1 hour if temperatures are $> 90^{\circ}$ F) — **discard it**.

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After an Emergency

Throw away the following food:

- Perishable food **that has not been refrigerated or frozen properly** due to power outages
- Food that may have **come in contact with floodwater or stormwater**
- Food with an **unusual odor, color, or texture.**

After a Power Outage

Determine the safety of your food:

- If an appliance thermometer was kept in the freezer, **check the temperature** when the power comes back on. If the freezer thermometer reads 40° F or below, the food is safe and may be refrozen.
- If a thermometer has not been kept in the freezer, **check each package** of food to determine its safety. You can't rely on appearance or odor alone. If the food **still contains ice crystals** or is 40° F or below, it is safe to refreeze or cook.
- Refrigerated food should be safe as long as the power was out for **no more than 4 hours** and the refrigerator door was kept shut. Discard any perishable food (such as meat, poultry, fish, eggs, or leftovers) that has been at temperatures above 40° F for 2 hours or more (or 1 hour if temperatures are above 90° F).

Throw out the following foods:

1. All perishable foods (including meat, poultry, fish, eggs, and leftovers) in your refrigerator when the **power has been off for 4 hours** or more.
 2. All perishable foods in your freezer if they have thawed.
- You can safely refreeze or cook food from the freezer if the food still contains ice crystals and feels as cold as if refrigerated.

Is food in the refrigerator safe during a power outage? Use [this chart](#) to find out.

Is thawed or partially thawed food in the freezer safe to eat? Use [this chart](#) as a guide.

After a Flood

Do not eat any food that may have **come into contact with flood or stormwater**. Discard:

- Food with an **unusual odor, color, or texture.**
- Food in packages that are **not waterproof.**
- Food in **cardboard** containers, including juice/milk/baby formula boxes.
- Containers with **screw-caps, snap-lids, crimped caps, twist caps, flip tops, and snap tops.**
- **Home-canned** foods because they cannot be disinfected.
- Canned foods or food containers that are **bulging, opened, or damaged.** Throw out cans or food containers that spurt liquid or foam when you open them or contain food that is discolored, moldy, or smells bad. When in doubt, throw it out!

How to salvage commercially prepared food in cans and plastic or metal pouches (like flexible, shelf-stable juice packages):

1. Remove labels if possible. **Note the expiration date.**
2. Brush or **wipe away dirt** or silt.
3. Wash cans and pouches with **hot, soapy water.**
4. **Rinse** cans and pouches with clean, safe water.
5. **Sanitize** cans and pouches in one of two ways:
 - Place them in a solution of 1 cup (8 oz) of unscented household bleach in 5 gallons of water for 15 minutes, OR
 - Put in a pot of water, bring to a boil, and continue boiling for 2 minutes.
6. Re-label cans or pouches with a marker. Include the expiration date.
7. Use food in cans or pouches as soon as possible.

Source: FoodSafety.gov - [foodsafety.gov/keep-food-safe/food-safety-in-disaster-or-emergency](https://www.foodsafety.gov/keep-food-safe/food-safety-in-disaster-or-emergency)

Other Resources: Alameda County - [acgov.org/ready/](https://www.acgov.org/ready/); City of Berkeley - [cityofberkeley.info/Ready](https://www.cityofberkeley.info/Ready)