

Disasters and Food Safety

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 the 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 flooding is expected, 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 food or water is not needed during a storm, keep them in a cool, dark place in case of a future flood. Once per year, check product date labels 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 home, sort through food to determine which foods can be kept after disinfecting and which 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 the 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 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 at least 1 hour before opening or storing.
- If labels were removed, write the 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 it for cooking.

Can You Disinfect Water?

Check with the 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 must be 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.

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 the 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 the equipment entirely.

Call Your Local Office

Contact your local Illinois Extension office with your food safety questions: go.illinois.edu/FindILExtension.

References

- [Keep Food and Water Safe After a Disaster or Emergency](#), Centers for Disease Control and Prevention
- [Floodwater After a Disaster or Emergency](#), Centers for Disease Control and Prevention
- [Build a Kit](#), Ready.Gov
- [Food and Water Safety During Power Outages and Floods](#), U.S. Food and Drug Administration
- [Cleaning Up the Kitchen After a Natural Disaster](#), Oklahoma State University
- [How To Salvage Flood-Damaged Appliances](#), North Carolina State Extension
- [The National Flood Insurance Program](#), Illinois Department of Natural Resources
- [Flood Preparedness and Response](#), Occupational Safety and Health Administration
- [Emergency Food and Water Supplies](#), Texas A&M AgriLife Extension

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