Fact Sheet

FOOD SAFETY IN AN EMERGENCY – IN THE HOME

Emergency situations can be frightening and overwhelming. This fact sheet aims to help reduce the risk of foodborne illness if you are affected by a power outage, flood or fire.

Preparation

Where there are warnings or indications that a power outage, flood or fire may occur in your area, make food safety a part of your household emergency plan.

Refer to the SA.GOV.AU website for more details https://www.sa.gov.au/topics/emergencies-and-safety/prepare-for-an-emergency/emergency-kit

Food and water essentials

- Keep foods that don't require refrigeration or heating to be safe to eat:
    - Long life milk and juice, canned food, bottled water, muesli bars
    - Ensure there is enough infant formula for babies
    - Pet food for your animals
- Make sure you have:
    - Enough bottled water for all the people and animals in the household, including for handwashing and cooking if possible
    - A manual can opener
- Keep a thermometer in the refrigerator and freezer
- Keep an eye on best before dates. Note: the food will still be safe, it just might not be at its best as the quality of the food may deteriorate over time.

Basic hygiene

Keep it clean! It's critical to practice basic hygiene. Wash hands thoroughly with soap using clean, drinking-quality water at the following times:

- Before preparing food or eating
- After toilet use
- After clean-up activities; and
- After handling items that might be contaminated with chemicals, floodwater or sewage.

You can use alcohol based hand sanitiser to wash hands if the supply of drinking-quality water is limited.

- Hygiene essentials:
    - Drinking-quality water
    - Detergent
    - Chlorine bleach
    - Alcohol-based hand sanitiser

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Managing at home

If you do find yourself and your family in a situation where you are confined, or choose to be confined at home during or following an emergency, there are several things you should consider to ensure you manage your supply of food in the best possible way.

These include:

- If the power is out, use refrigerated/ frozen food products first.
- Consume other perishable products (e.g. fresh fruit and vegetables, bread) before consuming long life products.
- When purchasing products for your pantry, aim for ready-to-eat products that do not require cooking (in case gas or electricity supply is disrupted).
- Ration food/water supplies based on how long you expect to be confined at home.

Remember

Appearance, smell or taste are not good indicators of food safety. Some foods may look, smell and taste fine, but if they have been warm too long, they may contain enough bacteria to make people ill.

When it doubt, throw it out!

Definitions

Potentially hazardous food means food that has to be kept at certain temperatures to minimise the growth of pathogenic microorganisms that may be present in the food, or to prevent the formation of toxins in the food.

Perishable food refers to foods that are subject to deterioration in quality or food safety when kept under normal storage conditions.

Examples include:

- Potentially hazardous foods (must be kept refrigerated and used within specified use by date).
- Uncut fruit and vegetables that can be stored unrefrigerated eg apples, bananas, potatoes etc.
- Shell eggs (recommended below 14°C but best stored below 5°C).
- Low risk bakery products e.g. bread.
- Some foods that require refrigerated storage.

Shelf stable food means a food that can be safely stored at room temperature. Preservation methods used include canning, ultra-heat treatment, reduced water activity, increased acidity and modified atmosphere packaging. These non-perishable products include canned and bottled foods, rice, pasta, flour, sugar, spices, oils, and foods processed in aseptic or retort packages and other products that do not require refrigeration until after opening.

Power Outages

When a power cut is ongoing (that is, it cuts for more than 4 hours and there is no immediate likelihood of reconnection) food safety becomes an important issue.

Time and temperature are the most important measurements used to determine whether food is potentially unsafe.

If you are unsure about the time that has passed or the temperature your food has been stored at then throwing the food out is the safest option.

Re-cooking food will not eliminate the risk of food borne illness as some bacteria produce a toxin, which is not destroyed at the temperature used to cook or reheat food.

Cold Food

When the power supply is out for more than 4 hours, food in fridges can spoil once the temperature of the food rises above 5°C. To help prevent this, keep the refrigerator door closed as much as possible, a closed refrigerator will help keep the food cold.

Extra things you can do:

- Note the time the power went out
- Quickly move perishable food from the refrigerator to the freezer
- Store food closely together to conserve temperature
- Meat, poultry and fish should be stored in the coldest part of the refrigerator or moved to the freezer
- Check the temperature of the food at the time the power came back on.

Time - Less than 2 hours

If potentially hazardous food is above 5°C and the power has been off for less than 2 hours you can re-refrigerate the food or use it immediately.

Time - between 2 – 4 hours

Potentially hazardous food above 5°C can be consumed immediately.

Time - More than 4 hours

If potentially hazardous food temperature is above 5°C and has been for more than 4 hours, the foods may be unsafe to consume and must be disposed of. This includes food in freezers that has defrosted and risen above 5°C.

Food in the freezer

Freezers will usually not defrost for at least 24 hours, provided the door has been kept shut. If frozen foods have thawed, some foods should not be refrozen but be kept below 5°C and eaten as soon as possible. Other foods may be refrozen, but will lose quality.

Safe foods

Certain refrigerated foods can be safely stored at room temperature (above 5°C) for longer periods of time and still be safe to eat. Refer to ‘Keeping food safe during an emergency’.

For examples refer to: ‘Keeping food safe during an emergency’ for more guidance.

Hot Food

In the middle of cooking

If the power does not come on within 2 hours, you will need to throw away food that was in the process of being cooked when the power failed. If food was fully cooked at the time the power went out, eat it within 2 hours or throw it out.

Food in the cupboard/ pantry

All shelf stable foods are still safe.

Flood

Floodwater can be contaminated with sewage, agricultural and industrial waste, and other substances that can cause illness. There is a danger that any food, surfaces and cooking utensils that have come into contact with floodwater might be contaminated.

Food:

Even if unsure, throw out any food that might not be safe to eat.

Follow these steps:

- Throw out food that has come into contact with floodwater or has an unusual odour, colour or texture. Do not taste or cook it.
- Check canned food and throw out any cans that are dented, swollen or damaged. Some cans might be salvageable. For cans that appear useable:
    - Remove the label and thoroughly wash the outside of the can with drinking-quality water
    - Sanitise the can in bleach for 1 minute, then rinse in drinking quality water
    - Re-label the can with a waterproof pen.

Frozen and/or refrigerated foods

Typically, electricity will go out during a flood. If the refrigerator or freezer has not been exposed to flood waters, some food may be salvaged:

Refer to 'Food Safety in a Power Outage' section.

Vegetable gardens can take a month to become suitable again.

- Discard all leafy green produce.
- After 1 month, wash other vegetables then sanitise in a weak bleach solution of 1 tablespoon bleach to 2 litres of water. Then rinse in drinking quality water, peel and use.

When it doubt, throw it out!

Safe drinking water after a flood

In an emergency such as a flood, tap water and private water supplies such as from tanks, wells and bores sometimes might not be safe to drink or to use for cooking and cleaning.

- Monitor public announcements and those from the local water supplier to know if tap water is safe to use.
- Private water supplies should be tested before using again – contact your council.

If the water is unsafe:

- Use only bottled, boiled or treated water for drinking, cooking or preparing food, washing utensils and surfaces, brushing teeth, hand washing, making ice, and bathing.
- Thoroughly clean any containers used to store water with hot soapy drinking-quality water, and then rinse with a bleach solution of 1 tablespoon of bleach in 2 litres of water before use.
- Only treat contaminated water if no drinking-quality water can be obtained. This is done by:
    - Filter cloudy water through a clean cloth or allow it to settle, then pour off the clear water for boiling
    - Boil the water vigorously for 1 minute then leave it to cool and store in a clean, covered container
    - If water can't be boiled, treat it with chlorine or iodine tablets. Follow the directions that come with the tablets. This might not kill all bugs and won't remove chemical contaminants.

NOTE: Boiling will ensure water safe from most types of harmful bugs but will not remove chemical contaminants.

Cleaning and sanitising after a flood

- Carefully check dishes, pots, pans, cutlery and kitchen equipment that might have been in contact with floodwater. Throw away damaged or cracked items, items made from porous material such as wood, plastic or rubber including wooden chopping boards as they cannot be adequately sanitised.
- All sinks should be thoroughly cleaned and sanitised before resuming use.
- Wash utensils and surfaces in hot, soapy, drinking-quality water. Take apart and clean the non-electrical pieces of any kitchen equipment that can be safety taken apart.
- Clean cupboards and counters with hot soapy water then rinse with a chlorine bleach solution before storing dishes or food.
- Heat Sanitation: Sanitise silverware, metal utensils, pots, pans and kitchen equipment in pieces by boiling in water for 10 minutes.
- Commercial and most domestic dishwashers are capable of sanitising all eating and cooking utensils as part of their normal cycle.
- Chemical sanitation (refer to dilution tables):
    - Wash all items, equipment and structures with detergent and hot water, then rinse thoroughly
    - Apply bleach as needed according to the tables below
    - Do not dilute chlorine in hot water
    - Leave bleach or chlorine on for 10 minutes and then rinse again.
- Air dry items because towels might have been splashed with contaminated water.
- Safety precautions when using bleach to sanitise:
    - Wear protective equipment such as safety glasses, face mask, disposable gloves and enclosed shoes.

Bleach for food contact surfaces, equipment (200ppm)

Water	4% Chlorine (household bleach)
5L	25mL
10L	50mL
50L	250mL

Bleach for walls, floors, ceilings (1000ppm)

Water	4% Chlorine (household bleach)
5L	125mL
10L	250mL
50L	1250mL (1.25L)

Note: mould may become an issue very quickly after a flood and professional mould removalist advice may be required

Fire

One of the dangers of a fire can be toxic fumes from burning materials.

Chemicals used to fight the fire can also contain toxic materials. The heat from a fire can cause bacteria in food to multiply and grow.

It is best to throw out any food that has been near a fire, including food in cans and jars even if it appears OK. Any raw food, or food in packaging such as cardboard, plastic wrap, screw topped jars and bottles should also be thrown out.

As the refrigerator/ freezer seal isn't airtight, fumes can get inside. It is best to throw out food from the refrigerator and/or freezer.

Wash cooking utensils exposed to fire-fighting chemicals in soapy hot water, then sanitise in 1 tablespoon of chlorine bleach per 2 litres of water and rinse.

For more information

SA Health

Health Protection and Licensing Services

Food and Controlled Drugs

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www.sahealth.sa.gov.au