
Food Safety After a Fire

This fact sheet is for informational purposes only. It is not intended to take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

Fires are unfortunate and often terrifying. In the aftermath, people are left to salvage what they can, including food and food products. It is important to understand that fire damage can jeopardize the safety of food. This fact sheet provides assistance in identifying food that may not be safe to eat following a fire. Identifying and discarding potentially unsafe food will help to reduce the risk of food borne illness or intoxication (intoxication happens when one eats food contaminated with chemical compounds called toxins). This fact sheet also contains information about cleaning up after a fire, and information for owners/operators of a food establishment/business.

How does a fire make food unsafe?

Food exposed to fire can be contaminated by toxic chemicals, and can be spoiled or made more prone to spoilage by bacteria. There are three aspects of fire situations that can make food unsafe:

1. **Smoke and fumes**

Toxic fumes released from burning materials are the most dangerous elements of a fire. Fumes and smoke released from the fire can contaminate food and drink, making it unsafe to eat or drink.

2. **Heat from the fire**

Heat from the fire may activate food spoilage bacteria in jars or cans of food, and

can partially or fully cook fresh foods. This can make previously safe food, such as that in cans and jars, unsafe. If the heat is high enough, cans or jars can split or rupture, making the food unsafe.

3. **Chemicals used to fight fire**

Chemicals used to fight fires may contain toxins and can contaminate food, making it unsafe to consume. These chemicals cannot be washed off.

What do I do with food that may be unsafe because of a fire?

Discard all food that may have been exposed to fumes and smoke, heat and/or chemicals used to fight fire. If you are in doubt about the safety of any food, throw it out rather than risk illness or disease.

Note: Food that has been contaminated or spoiled may not look different. You cannot usually see chemicals or pathogens on food. The following food safety tips can assist you to determine which foods to discard and which to save.

You should discard:

- **Food stored in permeable packaging** such as cardboard, plastic wrap, screw-topped jars, bottles, etc. This includes home-canned products and dry foods such as sugar,

candies, flour, cereal products, bakery products, dried beans, rice and other grains.

- **Food stored at room temperatures in cabinets and on shelves** in areas where the food could have been contaminated. This includes potatoes and other fresh fruit and vegetables, and dried fruit.
- **Food stored in refrigerators or freezers that have become contaminated** (the refrigerator seals may not be airtight and fumes can get inside). This includes: dairy products, fresh or frozen fish and meats. If food from your refrigerator has an off-flavour or odour when it's prepared, throw it away. Always err on the side of caution.
- **Food packaged in cans or jars that have been exposed to heat.** Cans and jars that have split or ruptured, or have other visible signs of damage, should always be discarded.

Only food in commercially sealed, undamaged, unopened, water proof airtight metal cans may be considered safe once the containers are cleaned and sanitized according to the instructions in the cleaning section below.

How do I clean after a fire?

Discard and remove from the premises all damaged equipment, utensils, linens and single service items.

Clean and sanitize all areas and non-permeable equipment affected by fire. This includes: utensils/silverware, cookware, dishware, food contact surfaces, food preparation equipment, floors, floor sinks, floor drains, and furniture.

Use the following cleaning and sanitizing method to clean and disinfect :

- Thoroughly wash with soap and water; ensure that any dirt, silt or chemicals are brushed or wiped away
- Rinse with clean water
- Sanitize by immersing in:
 - a mild bleach solution made with 5ml (1 tsp) bleach per 750 ml (3 cups) water;or

- hot water of 77° C (170° F) or hotter
- Air dry

If applicable, closed undamaged cans containing food can be sanitized by placing them in water and allowing the water to boil and continue to boil for at least two minutes, or by immersing them for two minutes in a mild bleach solution made with 5ml (1 tsp) bleach per 750 ml (3 cups) of water. When sanitizing cans, remove labels prior to washing and sanitizing. Re-label cans after air drying. Cans that have been cleaned and sanitized should be used as soon as possible as they may rust.

What if the fire was at my food establishment/business?

Following a fire at a food establishment/business, notify all public health authorities in your region.

In the aftermath of a fire, food establishment operators may want to resume operation as quickly as possible. However, it is important that all food preparation and service is discontinued until the appropriate steps have been taken to protect the public's health.

The owner/operator(s) of the food establishment should notify the public health authorities (such as the local health department) in their region, and seek assistance. For a list of local health departments in your area see attached link: www.health.gov.on.ca/english/public/contact/phu/phuloc_mn.html

Other food safety authorities:

Canadian Food Inspection Agency: <http://www.inspection.gc.ca>

Ontario Ministry of Agriculture, Food and Rural Affairs: www.omafra.gov.on.ca

Reminder

Where there is any doubt about the safety of a food product; it should be thrown out as a precaution.

IF IN DOUBT, THROW IT OUT!

WASH YOUR HANDS THOROUGHLY.

References:

- United States Department of Agriculture Food Safety and Inspection Services' website
http://www.fsis.usda.gov/factsheets/Fires_and_Food_Safety/index.asp
- Colorado State University, Food Safety Issues After a Fire
http://www.ext.colostate.edu/pubs/emergency/food_safety.html