

FOOD SAFETY TOPIC: FOOD SAFETY HAZARDS

Consumers want to know that their food is safe. To ensure that your finished product is safe for your consumers, the potential hazards within the food production/processing operation need to be identified. These hazards fall into three categories: biological, chemical, and physical. Once these hazards have been identified, then measures can be put in place to control them. This will ensure your customers are receiving a safe, quality product.

The three types of hazards:

Biological Hazards

- These include bacteria, viruses, parasites, or fungi (yeasts and molds) that can cause foodborne illnesses if they (or their toxins) are ingested.
- Biological hazards can be found in areas where the environmental conditions favour the growth of microorganisms: temperature, humidity, pH, water activity and oxygen availability.
- Microorganisms can be found in soil, mud, air, decaying matter, fecal matter, sewage, the gut of warm-blooded animals and even in our nose and mouth and on our skin. Fungi are typically found in warm, humid environments.

Discussion point – Take a few minutes as a group to identify potential biological hazards within your operation. How do you control these hazards?

Chemical Hazards

- These include naturally occurring toxins and allergens (i.e., shellfish toxins and mycotoxins), chemicals intentionally added to food (i.e., water, preservatives, and additives), chemicals unintentionally added to food (i.e., chemicals from packaging material, and chemicals used for cleaning or maintenance activities), and radiological hazards, although they are rarely encountered in food, when they do occur, they can present a risk (i.e., from contaminated soil or water, packaging materials, ingredients with radionuclides).
- Chemicals intentionally added to food (i.e., nitrates) are not intended to be hazardous; however, higher than desired amounts may render them harmful to human health.

Discussion point – Take a few minutes as a group to identify potential chemical hazards within your operation. How do you control these hazards?

Physical Hazards

- These include any extraneous or foreign material or object that can cause injury or illness to a consumer, such as but not limited to, glass, plastic, metal, wood, jewelry and animal droppings or insects.
- Health Canada considers any foreign material greater than 2.0 mm a potential health risk.

Discussion point – Take a few minutes as a group to identify potential physical hazards within your operation. How do you control these hazards?

Once you've identified all the potential biological, chemical and physical hazards within your food production/processing operation, you can put measures in place to control them. The pre-requisite programs you have in place can typically control 90-95% of the hazards in your operation.

Discussion point – List some of the pre-requisite programs you have in place that control the hazards you identified as a group.



FOR MORE INFORMATION, VISIT [PERENNIA.CA/QUALITY-FOOD-SAFETY](https://perennia.ca/quality-food-safety)

Date/Shift Identifier:

Supervisor/Lead Hand (name and initials):

Session Facilitator (if not the same as above) (name and initials):

EMPLOYEES WHO ATTENDED

Name:

Initials:

EMPLOYEE FEEDBACK, QUESTIONS, RECOMMENDATIONS

TALKING POINTS COVERED

(add in any additional aspects or references of material covered that are specific to your operation):

Horizontal lines for writing talking points covered.

Horizontal lines for writing employee feedback, questions, and recommendations.



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