



PUBLIC HEALTH REQUIREMENTS FOR SAFE CANNING

To help support owners/operators of food premises, this fact sheet is provided as guidance to ensure canning and preserving is conducted safely and meets the requirements outlined in the Ontario Food Premises Regulation 493/17.

Canning is a method of food preservation whereby food may be treated with heat or in a combination with pH (a measure of the acidity of a food) and water activity (a measure of the availability of water to support microbial growth), then stored in sealed containers.

Know the risks

- Improper processing methods or unsanitary conditions during food preparation can lead to botulism, a deadly form of food poisoning caused by the bacterium *Clostridium botulinum*.
- Botulism spores are hard to kill and are extremely heat-resistant. Foods contaminated with *Clostridium botulinum* toxin may not look or smell spoiled.
- Do not eat from cans or bottles that are dented, leaking or having bulging ends, as this could mean that the contents are unsafe.
- The ideal environment where *Clostridium botulinum* toxin is produced is a low acid, oxygen-free environment.
- Canning can be classified into categories: high acid foods (low risk), acidified and low-acid foods (high risk). Each type must be prepared differently and safely to prevent the growth of *Clostridium botulinum*.

High acid foods (low risk)

- High-acid foods with a pH of less than 4.6 are resistant to the growth of bacteria. A boiling water canner that heats food to 100°C (212°F) for a period as indicated in a validated recipe is sufficient to use for processing high-acid foods.

Most fruit-based jams, jellies and vinegar-based pickles are high-acid foods. Tomatoes are sometimes a borderline high-acid food and may need the addition of an acid for a safer canned product.

Low acid foods (high risk)

- Low-acid foods have a pH greater than 4.6 and a water activity greater than 0.85. Low-acid foods such as most vegetables, meats, and seafood must use a validated recipe and a pressure canner capable of reaching 116° to 121°C (240°

to 250°F) for 20-100 minutes. The safety of low-acid food items must be verified by submitting a representative product sample to an accredited laboratory.

Acidified

- Acidified foods are low-acid foods to which acid or naturally acidic foods are added; they have a pH of 4.6 or less and a water activity greater than 0.85. To reduce the risk of acidified canned

food, the product must be heat treated at 100°C for a period as indicated in the validated recipe. Fermented foods are not considered acidified.





Producing safe canned foods

Validated Recipes

- A validated recipe is a recipe that has undergone a testing process that has been scientifically determined to be adequate in ensuring a shelf-stable product that is free from pathogens and controls the risk of spoilage.
- A validated recipe includes container types and size, ingredients, acidity (pH) and time and temperature requirements.

Verify food safety using accredited laboratory testing

- Safety of all acidified and low-acid canned food items must be proven by the owner/operator by accredited laboratory testing. Examples of accredited laboratories can be found through the Standards Council of Canada [website](#). Test results must be kept on site for review during inspections. Once the recipe has been tested and approved, the recipe must be followed exactly as written.

Food Premises Regulation Requirements

- If you are starting a canning business as a home-based business or in a commercial kitchen, your kitchen will be subject to inspection, and you are required to [notify](#) York Region Public Health prior to preparing and selling food to the public.
- All food premises are required to comply with the [Food Premises Regulation](#) and follow proper food safety practices. Specifically, food handler hygiene and handwashing practices, dishwashing, utensil and equipment maintenance and sanitation.
- Public health inspectors are available to review validated recipes, test results, canning methods and answer questions about what is required to open a food premises under the Food Premises Regulation.

Resources

[National Center for Home Food Preservation](#)
Canadian Food Inspection Agency – [Food Labelling for Industry](#)

For more information on food safety at home, contact York Region Health Connection at 1-800-361-5653 (TTY: 1-866-252-9933) or visit york.ca/foodsafety