

# Home Canning Safety

When canning or bottling food at home, it is important to take steps to prevent botulism.

## BOTULISM

Botulism is a serious and sometimes fatal illness and is caused by a toxin produced by the bacteria called *Clostridium botulinum* (*C. botulinum*).

Botulism bacteria grow in a moist, oxygen-free environment. If the proper steps are not followed when canning or bottling at home, this can provide ideal conditions for the bacteria to multiply and produce the toxin.

Symptoms of botulism usually appear within 12 to 36 hours after eating the contaminated food and may include:

- Nausea and vomiting
- Fatigue and dizziness
- Headache and double vision
- Dryness in the throat and nose

These symptoms will usually last two hours to 14 days but some can last longer. The groups at higher risk for serious health effects include pregnant women, children under the age of 5, adults over the age of 60, and people with weakened immune systems. See a health care provider as soon as possible if you think you have botulism or food poisoning.

Serious health risks can include respiratory failure, paralysis and even death.

Those who operate a home catering business must follow the Health Unit's Operating Guidelines for Home Caterers. These guidelines are available at [TBDHU.COM/EH](http://TBDHU.COM/EH) or by calling 625-5930 or toll-free at 1-888-294-6630, ext. 5930.

## LOW-ACID FOODS

The Health Unit does not recommend pressure canning of low-acid foods. The Health Unit will not approve for sale to the public any low-acid foods prepared by a home caterer. The risk of preparing the food incorrectly with this method is much higher, which increases the risk of botulism and increases the risk to the public.

Examples of low-acid food include soup, milk, most fresh unpicked vegetables, and any meat (including spaghetti sauce with meat), poultry or seafood (fish and shellfish). The exception for fresh vegetables is tomato sauce with added lemon juice or vinegar (pH less than 4.6).

## HIGH-ACID FOODS

For those preparing food for sale to the public (e.g. home caterers, see shaded box for more information) the Health Unit does approve a boiling water canner for high-acid foods. These foods have a pH (acidity level) of less than 4.6. A boiling water canner will heat food to 100°C (212°F) at sea level. The natural acid in the food will prevent botulism bacteria from growing and the heating will kill most yeasts, moulds and bacteria that could be present.

Examples of high-acid food include fruit, jams, jellies, marmalades and fruit butters, pickled vegetables, sauerkraut and tomato sauce with added lemon juice or vinegar (pH less than 4.6).

## SAFETY TIPS

Because home canning requires special equipment and involves many steps, it may be a good idea to take a home canning course, or read current books and magazines. It is important to follow current, tested practices for home canning.

### 1. Cleaning

- Wash your hands with soap and warm, running water for at least 15 seconds.
- Wash your fresh fruits and vegetables gently under cool, running, potable water before preparing and eating them.
- Use paper towels to wipe kitchen surfaces, or change dishcloths daily to avoid the risk of cross-contamination and the spread of bacteria. Avoid using sponges, as they are harder to keep bacteria-free.
- Clean with soap and water and then sanitize countertops, cutting boards and utensils before and after preparing food. Use a kitchen sanitizer (following the directions on the container) or a bleach solution (2 tablespoons of household bleach in 4 litres of water).
- Clean during all stages of the canning process to avoid cross-contamination.

### 2. Cooking

- Use a boiling water canner to prepare high-acid foods.
- Add an acid, such as lemon juice or vinegar, to some foods to help lower the pH less than 4.6 and increase the acidity of the food.
- Never change the manufacturer recommended processing times or pressure levels. Substitutions can affect the time the canned or bottled food requires in the boiling water canner and can allow the botulism bacteria to remain in the finished canned or bottled product.
- Check from time to time that cooking or heating temperatures are maintained.
- Remember to follow the process for each batch.

### 3. Equipment

- Only use proper jars for home canning or bottling.
- Only use new self-sealing lids and make sure the sealing compound is not damaged.
- Do not reuse old lids, even if they appear to be in good condition.
- Use only current, tested home canning recipes.
- Never substitute the jar size or the amounts of ingredients that are recommended in the recipe.
- Fill the jar leaving the recommended space at the top.

### 4. Storing

- Label and date all home canned foods before storing them.
- Use all canned or bottled foods within one year for best quality.

***When in doubt, throw it out! Botulism doesn't change the colour, odour or taste of food.***

Source: Government of Canada; Food Safety Tips for Home Canning (Retrieved July 16, 2013)  
<http://healthykanadians.gc.ca/eating-nutrition/safety-salubrite/food-canning-serve-aliment-eng.php>

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