



Fact Sheet

FOOD SAFETY FACTS ON BOTULISM (*CLOSTRIDIUM BOTULINUM*)

What is foodborne illness?

Foodborne illness can occur when a person consumes food contaminated with pathogenic bacteria, viruses, toxins, or parasites. This condition is often referred to as “food poisoning”. Many cases of foodborne illness go unreported because their symptoms often resemble those of the flu. The most common symptoms of foodborne illness may include stomach cramps, nausea, vomiting, diarrhea and fever.

What are *Clostridium botulinum* and botulism?

- *Clostridium botulinum* (*C. botulinum*) is a bacteria that exists commonly in nature
- Botulism is a rare but serious illness caused by botulinum toxin, a nerve poison that can be produced by *Clostridium botulinum* bacteria
- In children, this is called infantile botulism
- *C. botulinum* cannot grow in the air
- The toxin produced by *C. botulinum* is a nerve poison that can cause paralysis

What are the symptoms of botulism?

- Symptoms can range from nausea, vomiting, fatigue, dizziness, headache, double vision, dryness in the throat and nose to respiratory failure, paralysis and in some cases, death.
- The onset of symptoms is generally from 12-36 hours after ingesting the toxin.
- The duration of illness may be 2 hours to 14 days, although some symptoms may linger much longer.
- With proper treatment the fatality rate of *C. botulinum* cases in Canada is as low as five to ten per cent.

Where *might C. botulinum* pose a risk?

- Improperly prepared home-canned, low-acid foods (e.g. corn, green beans, mushrooms, spaghetti sauce, salmon) are most likely to represent a risk for botulism. Outbreaks of botulism have also occurred in Canada’s Inuit populations when people have eaten improperly prepared raw or parboiled meats from marine mammals.
- Improperly stored low acid fruit juices (e.g., carrot juice).

- Improperly stored baked potatoes
- Honey may also be contaminated with *C. botulinum* and has been linked to cases of infantile botulism.

How can I protect myself and my family?

- Never eat food from cans that are dented, leaking or have bulging ends. The food may not look or smell spoiled but it may still contain the toxin.
- When canning foods at home, be sure to process all low-acid products (e.g. vegetables, mushrooms, seafood) in a pressure canner following the manufacturer's instructions closely.
- Take precautions with home-prepared foods stored in oil (e.g., vegetables, herbs and spices). If these products are prepared using fresh ingredients, they must be kept refrigerated and for no more than 10 days.
- Consumers who purchase products such as those outlined above from fairs, farmer's markets or roadside stands or receive them as a gift should check when they were prepared and discard them if more than a week old.
- Do not feed honey (even pasteurised honey) to children under one year old. The bacterium cannot grow or make toxins in the honey, but it may grow and make toxins in the baby's body.
- Date and label preserves and canned goods and follow proper canning requirements strictly.
- Keep all work surfaces, food, utensils, equipment, and hands clean during all stages of the canning process.
- Refrigerate all foods labeled "keep refrigerated".
- If you experience symptoms of botulism, seek medical attention immediately.

What does industry do to protect consumers?

- Manufacturers of commercially canned low acid foods use strict thermal processes which are designed to destroy spores of *C. botulinum*.
- Processors may also add salt and nitrites to many vacuum-packaged foods to enhance flavour and colour. These nitrites also reduce the growth of *C. botulinum*.
- Individual companies and industry associations are working to develop systems that will further enhance the safety of their product.

How does the Canadian Food Inspection Agency protect consumers?

- The CFIA administers and enforces 13 Acts governing food safety and food inspection within Canada and at its borders.
- CFIA inspectors monitor food processing in federally registered slaughtering and processing establishments.
- CFIA inspectors check packaging dates and labels in retail stores.
- CFIA laboratories continue to develop quick, cost-effective tests to better detect new and existing pathogens in foods and their manufacturing processes.

- In cooperation with industry, the CFIA is moving towards a modernised, science-based inspection system.

For more information on foodborne illness and safe food handling practices, visit the Canadian Food Inspection Agency website at www.inspection.gc.ca

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