



WHAT YOU NEED TO KNOW ABOUT BOTULISM AND CANNED FOODS

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Abstract

There were 52 reported cases of foodborne botulism between 1985–2014 in Washington State (WSDH 2016a; 2016b). Although foodborne botulism is rare, the illness is very serious and can result in death. Botulism is caused by eating foods that are contaminated with the botulinum (botulism) toxin, which is produced by a bacterium called *Clostridium botulinum* (CDC 2016a). Most cases of foodborne botulism are the result of eating home-canned foods that have been improperly canned. This publication supplies basic facts on how you can prevent botulism.

Introduction

Botulinum toxin is produced by a bacteria called *Clostridium botulinum*. *C. botulinum* is unable to grow in foods that have a high acid content, such as most fruits, or when exposed to oxygen. Therefore, the bacteria and toxin are most often associated with home-canned foods with low acid content, such as vegetables and meats, that have not been properly processed (Figure 1). In recent years, botulism outbreaks have occurred due to mishandling of other foods such as unrefrigerated homemade foods including salsa, garlic and herbs in oil, and foil-wrapped potatoes. Botulism is also associated with traditionally prepared salted or fermented seafood. Consuming very small amounts, even a small taste, can result in severe illness or death. Illness can occur within a period of a few hours or up to 10 days after eating food containing the botulism toxin. [Symptoms](#) may include double or blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and increasing muscle weakness



Figure 1. Canned food.

usually affecting the upper part of the body initially, with subsequent progression down to the legs. Ingestion of the toxin can lead to paralysis of respiratory muscles resulting in death. If you have any of these symptoms, especially after eating home-canned food, go to a hospital immediately and inform the medical staff of the botulism concern.

Protect Yourself!

- Use **ONLY current, researched, and approved published recipes**. Follow the guidelines for home canning provided in the [USDA's Complete Guide to Home Canning](#). For more information, on approved recipes and guidelines, contact your local Extension office. Use the appropriate canner for the recipe and follow all specified home canning processing times and recipes exactly (CDC 2016).
- **NEVER fill hot food into the jar in order to let the seal form without processing. You MUST use the appropriate canner/canning method to process the food safely** (Figure 2). Canned foods at risk for botulism must be processed in a pressure canner at a specific temperature and for a specific length of time to ensure safety.



Figure 2. Never pour hot food into jars and let them sit to self-seal without also processing in the appropriate canner.

- Do **NOT** open, smell, touch, or eat any food from jars that are damaged, cracked, leaking, swollen, squirt liquid or foam when opened, or look or smell bad. If you are ever unsure whether food is safe or not, ALWAYS throw it away.
- Boil home-processed, low acid foods like tomato sauces, meats, soups and vegetables for 10 minutes in a saucepan before serving even if there is no sign of spoilage. Botulism toxin can be present in canned foods even if there are no signs, such as a leaking or swollen lid. If there are signs of spoilage, DO NOT eat the food. Throw it away.

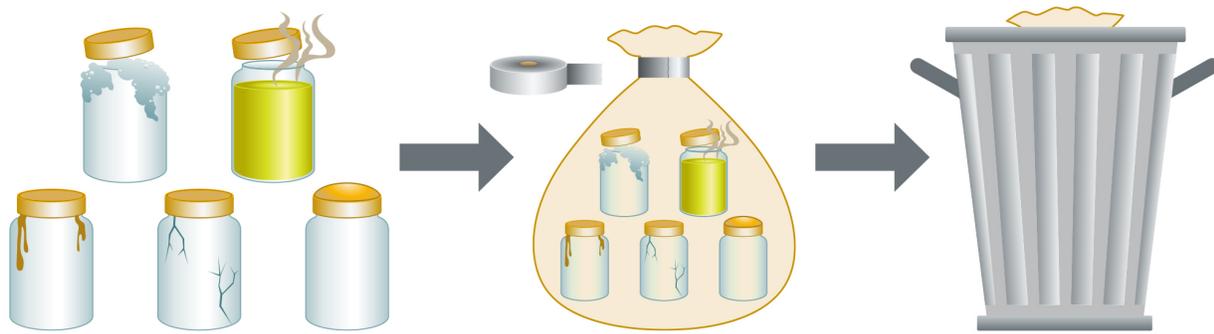


Figure 3. Throw away any suspect jars.

- **Keep infused oils refrigerated.** Do not store infused oils at room temperature.
- **Keep baked potatoes that are wrapped in foil hot (above 140°F) until serving.** Do not keep foil-wrapped potatoes at room temperature.
- **Safely dispose of contaminated home-canned food AND the container.** It is important to put on gloves before handling containers of food that you think may be contaminated (CDC 2016a). Place the food or jar in a sealable bag and wrap another plastic bag around the sealable bag (Figure 3). Tape the bags shut tightly and place bags in a trash receptacle for non-recyclable trash outside the home and out of reach of humans and pets. Don't discard the food in a sink, garbage disposal, toilet, or compost pile. Wash your hands with soap and warm running water for at least two minutes after handling food or containers that may be contaminated (CDC 2016a).

- **Wipe up spills of potentially contaminated food using a bleach solution.** A fresh solution of one part unscented liquid household chlorine bleach (5% to 6% sodium hypochlorite) to five parts clean water should be used. Completely cover the spill with the bleach solution, place a layer of paper towels on top of the bleach, and let it sit for at least 15 minutes. Wipe up any remaining liquid with new paper towels (Figure 4). Clean the area with liquid soap and water to remove the bleach and discard any items that may have come into contact with the contaminated food or containers. Wash your hands with soap and running water for at least two minutes (CDC 2016).

If you are experiencing any symptoms associated with botulism, such as double or blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, or increased muscle weakness, seek medical treatment immediately (Figure 5).

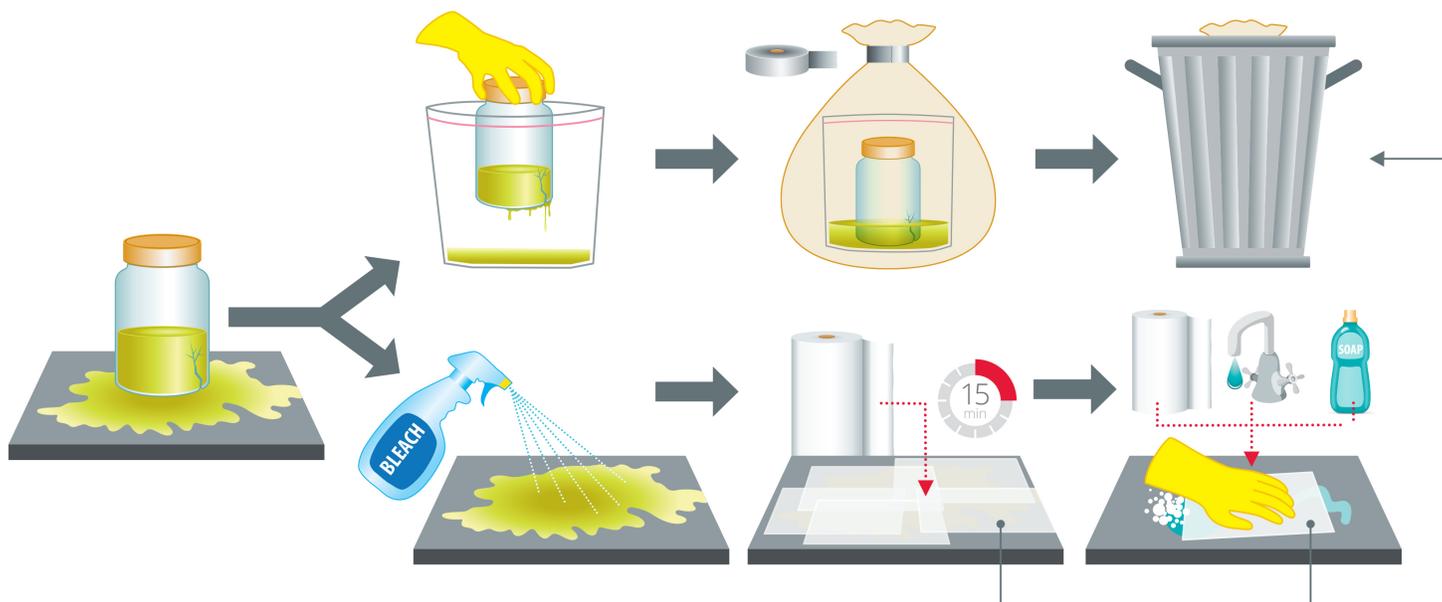


Figure 4. Wipe up spills using a bleach solution.

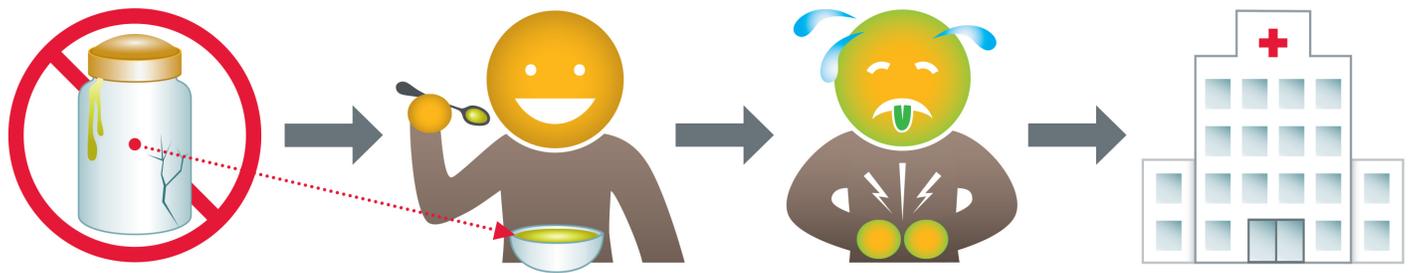


Figure 5: Seek medical treatment immediately if you are experiencing any of the symptoms of botulism.

For More Information

[Center for Disease Control and Prevention](#)

[Washington State University Consumer Food Safety](#)

[National Center for Home Food Preservation](#)

[USDA's Complete Guide to Home Canning](#)

[FDA Bad Bug Book](#)

References

CDC (Center for Disease Control and Prevention). 2016a. [Home Canned Foods, Protect Yourself from Botulism](#). Center for Disease Control Online Publication.

CDC (Center for Disease Control and Prevention). 2016b. [Botulism Symptoms](#).

USDA (US Department of Agriculture). 2015. [Complete Guide to Home Canning](#). United States Department of Agriculture. National Institute of Food and Agriculture. Agriculture Information Bulletin No. 539.

WSDH (Washington State Department of Health). 2016a. [Botulism](#). Washington State Department of Health Online Publication.

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