

L-1316

FOODBORNE ILLNESS

BOTULISM . . . A True Food Poisoning

CAUSE

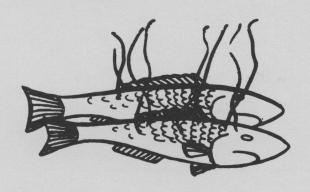
A toxin is produced in food by the micro-organism *Clostridium botulinum* found in soil all over the world. The organism has the ability to form a spore very resistant to heat and chemicals. Its toxin is the most deadly known to man.

FREQUENCY OF OCCURRENCE

Cases are rare, but each year several outbreaks of individual cases occur.

FOODS COMMONLY INVOLVED

Home- or commercially-canned or processed low-acid vegetables, meats, fish and poultry that have been insufficiently heated during processing or canning are the foods commonly involved. They include peas, corn, lima beans, green beans, mushrooms, sauces and soups.



CONDITIONS NECESSARY FOR BOTULISM OUTBREAK

Several conditions are needed:

- 1. The *botulinum* organism must be in the food.
- 2. The food must be canned or processed in some way.



- 3. Inadequate processing or heating must have occurred to permit spore survival and toxin formation.
- 4. Conditions after processing must permit spore growth and toxin formation.
- 5. The food is not heated enough before eating to inactivate the toxin.
- 6. The poisonous food is eaten.

PREVENTION ALERT

Discard all food, raw or canned, that shows any sign of spoilage.

Discard all bulging or swollen cans of food and food from glass jars with bulging lids.



Do not taste food from swollen containers or food that is foamy or has a bad odor.

Process foods with low acid at temperatures above boiling and for the recommended time periods for the size of container used.

Can low-acid foods in a pressure canner.

Do not can low-acid foods in the oven, in waterbath, open kettle or vegetable cooker. Heat home-canned low-acid foods to a rolling boil, and then cover and boil for 10-20 minutes before tasting.



"When in Doubt, Throw it Out"

BOTULISM SYMPTOMS

Symptoms include difficulty in swallowing, speech and respiration; double vision. Death occurs from paralysis of respiratory muscles unless the correct antitoxin is administered promptly.

REFERENCES

Keeping Food Safe to Eat, G-162, USDA.

Botulism, Extension Bulletin 372, University of Minnesota (included in ES "Food Safety Packet" to States), 25 cents.

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