



Hawaii State Department of Health

Disease Investigation Branch

Oahu 586-4586, Maui 984-8213, Hilo 933-0912,

Kona 322-4877, Kauai 241-3563

Botulism

(food-borne botulism and infant botulism)

What is botulism?

Botulism is a serious muscle-paralyzing illness caused by a nerve toxin that is made by the bacterium *Clostridium botulinum*. Three forms of botulism occur naturally: infant botulism, food-borne botulism, and wound botulism. Infant botulism is the most common form of botulism reported in the USA. It mainly affects infants under the age of 1 year. There is also concern that botulism could be used as a bioterrorist weapon to contaminate food or water supplies.

How do you get it?

Infant botulism is caused by an infection of the intestine with *C. botulinum* spores. As the bacteria grow in the infant's gut, they make a toxin that has its main effect on the nervous system. Botulism spores are quite common and are found in foods such as honey.

Food-borne botulism results from eating the pre-formed toxin (toxin made by the bacteria in contaminated food). The bacteria are most commonly found in poorly preserved, often home-canned or home-bottled food items. Cooking food well will inactivate the toxin.

Wound botulism is rare and is caused by botulism bacteria infecting a wound and making the toxin. Botulism is not spread from person to person.

What are the symptoms of botulism?

Infant botulism has a wide range of symptoms including constipation, poor feeding, sleepiness, breathing problems, and poor reflexes.

The symptoms of food-borne and wound botulism include blurred or double vision,

general weakness, poor reflexes, and difficulty in swallowing. Untreated botulism may result in paralysis and death.

When do symptoms start?

The symptoms of wound and foodborne botulism usually start 12 to 36 hours after exposure to the botulinum toxin. However, the symptoms may take as few as 2 hours or as many as 8 days to appear. Usually, the shorter the time from infection to when symptoms develop, the more severe the disease. The length of time for symptoms to appear in infants is unknown, because it is difficult to determine exactly when an infant was exposed to the bacterial toxin.

What is the treatment for botulism?

Hospital care is usually needed to prevent breathing failure. Antitoxin medicines are given in some cases.

How can you keep from getting it?

- Carefully and thoroughly cook (pasteurize) all home-canned and preserved foods before serving.
- Canned or bottled foods that have bulging lids or sides should be thrown away or returned unopened to the store where they were bought.
- Do not feed raw honey to infants. Also be sure that all milk and juices and food products that are fed to infants are pasteurized or thoroughly cooked.
- Foods that do not smell right should not be eaten or tasted.

For more information, see the CDC's website at <http://www.bt.cdc.gov/agent/botulism/index.asp>