

BOTULISM

What is botulism?

Botulism is a rare, but potentially deadly illness characterized by muscle paralysis. Botulism is caused by a nerve toxin that is produced by a bacterium called *Clostridium botulinum*. A toxin is a poison that is created by living organisms (plants, animals and certain bacteria).

The bacteria are found naturally in the soil. If the bacteria grow in improperly canned or preserved foods, they can produce the botulinum toxin.

There are three main kinds of naturally occurring botulism: 1) food-borne; 2) wound; and 3) infant.

A fourth kind of botulism, inhalation (affecting the lungs), can happen when the pure toxin is released into the air and a person breathes it in.

How can someone come into contact with botulism?

Botulism is not contagious; it cannot be spread from one person to another.

- **Food-borne botulism:** Humans can come into contact with botulism by eating improperly canned or preserved foods that contain the botulinum toxin.
- **Wound botulism:** Humans can come into contact with botulism when a wound is infected with bacteria. The bacteria then produce the toxin, which can spread throughout the whole body.
- **Infant botulism:** Babies can come into contact with botulism when they eat a contaminated food (such as honey). The bacteria grow in the small intestine and produce the toxin, which can spread throughout the whole body.
- **Inhalation botulism:** This form happens when the pure form of the toxin is breathed into the lungs.

Botulism as a weapon: A terrorist event may involve the contamination of food sources. However, the pure toxin would most likely be aerosolized and released into the air.

Please note: Just because you come into contact with botulism does not mean you will get sick from it.

What happens when someone gets sick from botulism?

- In food-borne botulism, symptoms usually begin 18 to 36 hours after eating a contaminated food. However, symptoms can show up as early as six hours or as late as 10 days.
- The classic symptoms of botulism include the following:
 - double vision
 - difficulty swallowing
 - blurred vision
 - dry mouth
 - drooping eyelids
 - muscle weakness
 - slurred speech
- Infants with botulism appear drowsy and feed poorly. They are constipated, and have a weak cry and poor muscle tone.
- If not treated, the above symptoms may lead to paralysis of the arms, legs, trunk and lung muscles. After a few weeks, the paralysis slowly decreases. The patient may need to use a breathing machine (ventilator) for several weeks.

How likely is someone to die from botulism?

All forms of botulism can be deadly but most patients who receive medical treatment do not die. Food-borne botulism can be very dangerous because many people can be poisoned at the same time by eating a contaminated food at a common meal. A patient with a severe case may need a breathing machine. Patients who survive may feel tired and have shortness of breath for months to years. Long-term therapy may be needed.

What is the treatment for botulism?

The U.S. Centers for Disease Control and Prevention has a supply of antitoxin for treating cases of botulism. If taken early, the antitoxin works to lessen the seriousness of symptoms. Most patients recover fully after weeks to months of care.

Supportive care (intravenous fluids, medicine to control fever and pain) is the standard treatment.

- **Food-borne botulism:** If caught early, food-borne botulism can be treated with an antitoxin that prevents the toxin from circulating in the body's blood. This can keep patients from becoming sicker. Recovery still takes many weeks.
- **Wound botulism:** If caught early, wound botulism can be treated with an antitoxin that may prevent the toxin from circulating in the body's blood. This can keep patients from becoming sicker. Recovery still takes many weeks.
 - Wounds infected with botulism are usually treated with surgery to remove the bacteria that made the toxin. Some health care providers may consider treatment with antibiotics.
- **Infant botulism:** Currently, antitoxin is not routinely given for treatment of infant botulism.
- **Inhalational botulism:** It is not known if the antitoxin will be effective against aerosolized toxin.

Is there a vaccine for botulism?

No, currently there is no vaccine for botulism.

What should be done if someone has botulism?

If you think that you or someone you know may have come into contact with botulism, contact the local county health department right away. (Visit www.idph.state.il.us//local/alpha.htm for a listing of all county health departments in Illinois or check your local phone book.)

If you or someone you know is showing symptoms of botulism, call your health care provider or the Illinois Poison Center right away. The toll-free number for the poison center is 1-800-222-1222.

Where can one get more information about botulism?

- U.S. Centers for Disease Control and Prevention www.bt.cdc.gov/agent/botulism/index.asp
- Illinois Department of Public Health www.idph.state.il.us
- Illinois Poison Center www.IllinoisPoisonCenter.org