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FACTS & details

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Botulism

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What is botulism?

Botulism is a muscle-paralyzing disease caused by a toxin made by a bacterium called *Clostridium botulinum*. There are three main types of botulism, all of which can be considered fatal and require immediate medical attention:

- Foodborne botulism is caused by eating foods that contain the botulism toxin.
- Wound botulism is caused by toxin produced from a wound infected with the bacterium.
- Infant botulism is caused by consuming the spores of the botulinum bacteria, which then grow in the intestines and release toxin.

What causes botulism?

- Botulism cannot be spread from person to person.
- Foodborne botulism usually occurs from eating home-canned foods with low acid content, such as asparagus, green beans, beets, and corn. People who do home canning should wash their hands frequently throughout the canning process and keep work surfaces clean to reduce contamination of foods. Because the botulism toxin is destroyed by high temperatures, people who eat home-canned foods should consider boiling the food for ten minutes before eating it to ensure safety. Any store-bought food items in bulging containers should not be opened and foods with an unusual smell should not be eaten or tasted. Because honey can contain spores of *Clostridium botulinum*, children less than 12 months old should not be fed honey. Honey is safe for persons one year of age and older.
- Wound botulism can be prevented by promptly seeking medical care for infected wounds.

What are the symptoms of botulism?

The classic symptoms of botulism include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth and muscle weakness. Infants with botulism appear lethargic, feed poorly, are

constipated, and have a weak cry and poor muscle tone. The symptoms of botulism make hospitalization necessary. If left untreated, the symptoms may progress to cause paralysis of the arms, legs, torso, and respiratory muscles. Symptoms usually appear within 12 to 36 hours (within a range of six hours to ten days) after exposure.

How is botulism treated?

Foodborne and wound botulism can be treated with an antitoxin that blocks the action of toxin circulating in the blood. This can prevent the symptoms from getting worse, but recovery still takes many weeks. Wounds should be treated, usually surgically, to remove the source of the toxin-producing bacteria. Currently, antitoxin is not routinely given for the treatment of infant botulism. The respiratory failure and paralysis that occur with severe botulism may require the person to be on a breathing machine for weeks, with medical and nursing care. After several weeks, the paralysis slowly improves.

Can botulism be used for bioterrorism?

Cases of botulism are usually associated with consumption of canned foods. However, botulism's extraordinary potency has made it one of the most widely researched bioweapons by terrorists. Inhalational botulism does not occur naturally, but would be the most likely form seen in a large-scale bioterrorist attack via an aerosol release of botulinum toxin.

For More Information:

Contact the Sedgwick County
Health Department Epidemiology Office at
316-660-7392 or visit the Sedgwick County website at
www.sedgwickcounty.org.