

Botulism

Botulism is a rare but serious illness that causes paralysis. Children under the age of 12 months are most at risk of infection. Botulism can occur following the ingestion of contaminated food, soil or dust. Care should be taken when canning fruit, vegetables and meat at home.

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What is botulism?

Botulism is a rare but serious illness that causes paralysis. Botulism is caused by nerve toxins made by *Clostridium botulinum* bacteria. Botulism can result from eating food that has been contaminated with the toxin (foodborne botulism) or ingesting food, dust or soil that contains the bacteria that produce the toxin (intestinal botulism) or contaminating a wound with the bacteria (wound botulism). Intestinal botulism affecting children under 12 months of age is known as infant botulism. This is the most common form of botulism.

What are the symptoms?

The symptoms of infant botulism include constipation, loss of appetite, weak suck, weak cry and muscle weakness including poor head control.

Early symptoms of foodborne botulism include weakness, marked fatigue and vertigo usually followed by blurred vision, dry mouth and difficulty swallowing. Nausea and vomiting may also occur. These symptoms may progress to paralysis of the arm muscles and continue down the body to the trunk and legs. Paralysis of breathing muscles can be fatal. Most cases recover if diagnosed and treated early. In foodborne botulism, symptoms may begin from a few hours to several days after eating the contaminated food.

Wound botulism causes similar symptoms to foodborne botulism but may take up to two weeks to occur.

How is it spread?

Infant botulism occurs when infants ingest the spores of the botulinum bacteria that grow in the intestine and produce the toxin. The spores can be found in dust and soil. Raw honey has been shown to cause infant botulism.

Foodborne botulism occurs when the bacteria *Clostridium botulinum* grow and produce toxin in food which is then eaten without sufficient heating to destroy the toxin. This is more likely to occur with fermented, salted or smoked fish or meat products and home canned or bottled vegetables and fruits.

Wound botulism occurs when spores get into an open wound and produce the toxin. It has been associated with black tar heroin in injecting drug users in parts of Europe and North America.

Botulism is not known to spread from person to person.

Who is at risk?

Children under twelve months of age are most at risk of intestinal botulism. Older children and adults are not usually affected because they have natural defences in the gut to prevent production of the toxin. Intestinal botulism in adults is very rare and more likely in those with suppressed immune systems or bowel problems.

People who eat home canned fruit, vegetables or meats are at risk of acquiring foodborne botulism.

Those with open wounds that are not properly cleaned and injecting drug users are at risk of wound

botulism.

How is it prevented?

People who preserve their own fruit, vegetables or meats should take special care with cooking temperatures, container sterilisation and salt and acidity levels to make sure the process does not encourage bacteria to grow. Discard all canned foods that show any signs of being spoiled or are out of date.

Avoid giving honey to babies less than 12 months of age and take care when preparing, handling and storing solid foods for babies.

Wash any wounds thoroughly with soap (or detergent) and running water.

How is it diagnosed?

A doctor can diagnose botulism based on the symptoms and identification of the toxin in the blood or faeces.

How is it treated?

Botulism can be treated with an antitoxin. Hospitalisation is usually required. Intensive care with mechanical ventilation may be needed if the breathing muscles have been affected. Infants may require immunoglobulin (a blood product).

What is the public health response?

Laboratories and hospitals are required to notify cases of botulism to the local public health unit. Public health units investigate possible cases to identify the source and prevent further cases.

For further information please call your local public health unit on 1300 066 055 or visit the New South Wales Health website www.health.nsw.gov.au