Most cases of botulism occur in infants

DEAR DR. BENFIELD: I recently read about a case of infant botulism, but the writer didn’t explain it very well. Can you explain where infant botulism comes from? Is BOTOX produced from the same germ that causes botulism? J.M.

DEAR J.M.: Botulism is a rare but serious paralytic illness caused by a nerve toxin produced by Clostridium botulinum, bacteria often found in the soil. Botulism can be caused by eating foods that contain the botulinum toxin; by consuming spores of the bacteria, which then grow in the intestines and release toxin; by suffering a wound contaminated with the germ and by accidentally consuming an overdose of the toxin, itself. All forms can be fatal and are considered medical emergencies.

There are seven types of botulism toxin designated by the letters A through G; only types A, B, E and F cause illness in humans.

The classic symptoms of botulism include double vision, blurred vision, droopy 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. These are all symptoms of the muscle paralysis caused by the bacterial toxin. If untreated, these symptoms may progress to cause paralysis of the respiratory muscles, arms and legs.
Most cases of botulism occur in infants

In foodborne botulism, symptoms generally begin 18 to 36 hours after eating a contaminated food.

The respiratory failure and paralysis that occur with severe botulism may require a patient to be on a respirator for weeks or even months, plus intensive medical and nursing care. Botulism can be treated with an antitoxin which blocks the action of the toxin circulating in the blood. The antitoxin is available from the CDC.

Wounds should be treated, usually surgically, to remove the source of toxin-producing bacteria followed by appropriate antibiotics. Good supportive care is the mainstay of therapy for all forms of the disease.

Botulism can result in death from respiratory failure. However, in the past 50 years the proportion of patients with botulism who die has fallen from about 50 percent to approximately five percent. Patients who survive an episode of botulism poisoning may have fatigue and shortness of breath for years and long-term therapy may be needed to aid recovery.

How can botulism be prevented? Foodborne botulism is often caused by failure to follow proper home canning methods. Information for safe canning is widely available online from state health departments and the CDC. If antitoxin is needed to treat a patient, it can quickly be delivered to a physician anywhere in the United States.
Most cases of botulism occur in infants

In the United States, an average of 145 cases are reported each year. Of these, approximately 15 percent are foodborne, 65 percent occur in infants who have consumed clostridium spores, and 20 percent result from contaminated wounds. Most wound botulism cases are associated with heroin injection, especially in California.

It may come as a surprise that the most common form of botulism in this country occurs in infants who are colonized with the spores during the early months of their lives. The bacteria then release the toxin into the intestine, which is absorbed into the bloodstream. Consuming honey during the first year of life has been identified as a factor in 20 percent of all infant cases. Therefore, honey should not be fed to infants during the first year of life.

BOTOX and BOTOX Cosmetic are purified and highly diluted forms of botulinum toxin A, one of the toxins produced by *Clostridium botulinum* that causes botulism in humans.

BOTOX is a prescription medicine that is injected into muscles and used to treat overactive bladder symptoms; leakage of urine (incontinence); muscle stiffness in elbow, wrist and finger muscles; neck pain associated with cervical dystonia; certain types of eye muscle problems; and severe underarm sweating. It is also used to prevent chronic migraine headaches.
Most cases of botulism occur in infants

BOTOX Cosmetic is injected into muscles and used to improve the look of moderate to severe frown lines between the eyebrows and crow’s feet lines around the side of the eyes for a short period of time.

Two weeks ago, the FDA issued a warning that counterfeit BOTOX may have been distributed to doctors’ offices and medical clinics across the United States. The bogus BOTOX – which is considered unsafe and should not be used – was sold by an unlicensed supplier not authorized to ship or distribute drug products in the United States.

© 2015 Gary Benfield