



Botulism Risk: More Than Just Canned Food

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Botulism poisoning is a potentially fatal muscle-paralyzing disease caused by a toxin made by a bacterium called *Clostridium botulinum*. *C. botulinum* is a spore-forming bacterium that occurs naturally in the environment and is commonly found in soil. In foods of low acidity, at warm temperatures, in an environment where there is enough moisture, and where oxygen is absent (anaerobic), the spores of *C. botulinum* can germinate and produce the deadly toxin. Symptoms of botulism poisoning include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness that descends through the body. Paralysis of breathing muscles can cause a person to stop breathing and die, unless assistance with breathing (mechanical ventilation) is provided. If a person consumes contaminated food, the symptoms of botulism poisoning usually begin within 12 to 36 hours, but on occasion symptoms may take several days to develop.

Botulism poisoning is an illness traditionally associated with improperly home-canned food. When low-acid foods such as meats and vegetables are placed in a jar and improperly heat processed, botulinum toxin can be produced. Recently, however, cases of botulism poisoning have been associated with less traditional foods such as:

- Foil-wrapped baked potatoes left to cool at room temperature. The aluminum foil provided an effective barrier for oxygen, and botulism toxin was produced.
- Dry-cured sausage improperly cured. The nitrite (cure) and vitamin C added to pepperoni or summer sausage are necessary to prevent the germination of *C. botulinum* spores and subsequent production of toxin.
- Garlic-in-oil mixtures. Oil provides an effective barrier for oxygen, and garlic or herbs often carry *C. botulinum* spores. Commercial garlic-in-oil mixtures are acidified to ensure safety, but it is not possible to add the right amount and type of acid to ensure safety when preparing these products at home.
- Canned quick breads. Although a popular Christmas bazaar item, pumpkin or applesauce breads can not be safely baked in a jar and sealed. These products present a significant risk of botulism poisoning.

The association of botulism poisoning with new food sources highlights the need to take precautions when handling, preparing and storing food. Always follow a tested recipe when canning food at home. Just because a recipe is printed in a book or magazine, or on the internet, doesn't mean that it is safe. For further information on preventing foodborne illness, contact your local county extension office.

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