



INTRODUCTION

Botulism is a potentially fatal disease caused by the botulism toxin, which is produced by bacterial spores when exposed to low oxygen levels and certain temperatures. Safe food canning practices have made botulism rare, but there are a few different types of botulism and it is important to be familiar with the symptoms and prevention just in case.

TYPES

Clostridium botulinum, the bacteria whose spores will create the botulism toxin at low oxygen levels, is commonly found in soil and water, but is surprisingly rare in humans due to our natural defense mechanisms. There are four types of botulism found in humans, and these are:

- Foodborne botulism - occurs when food containing the botulism toxin is eaten.
- Infant botulism – occurs when a baby ingests the bacteria or spores that produce the botulism toxin inside the body. This typically only occurs in children less than six months old.
- Wound botulism – occurs when the bacterial spores that produce the botulism toxin are introduced to a deep wound. This is found most often among those who inject street drugs.
- Inhalation botulism – occurs when the actual botulism toxin is inhaled into the lungs.



SYMPTOMS

All types of botulism cause symptoms that affect the nervous system by blocking nerve functions. This can be fatal because if not treated will result in respiratory and muscular paralysis. Early symptoms include:

- Fatigue
- Weakness
- Vertigo
- Blurred vision
- Dry mouth
- Difficulty swallowing and speaking
- Vomiting
- Diarrhea or constipation
- Abdominal swelling





PREVENTION

In addition to following general safe food handling practices and pasteurization processes, you can avoid botulism by:

- Foods must be refrigerated or frozen immediately after processing.
- Oils infused with garlic or herbs must be refrigerated during storage.
- Throw away any canned foods with bulging or damaged lids, leaks, or strange odors.
- During holding or storage, keep hot foods hot (above 57°C/135°F) and cold foods cold (below 5°C/41°F) to prevent the formation of spores.
- Wash hands, utensils, and surfaces that come into contact with food using hot soapy water before food preparation, after contact with raw meat or seafood, and after using the bathroom.
- If you suspect botulism, medical attention must be sought immediately.



CONCLUSION

Botulism can be avoided even though the bacterium responsible for the botulism toxin is quite common. Knowing the types, symptoms, and basic food handling rules can help protect you from this disease.

