



Clinical Overview of Infant Botulism



Health Care Providers

APRIL 24, 2024

KEY POINTS

- Initial diagnosis of infant botulism is based on clinical symptoms.
- Consultation is available for suspected cases.
- If clinical consultation supports infant botulism, begin treatment as soon as possible. Do not wait for laboratory confirmation.
- Infant botulism is a notifiable disease. All suspected cases must be reported to the state public health department.

Overview

Infant botulism is an intestinal toxemia.

The disease results after spores of the bacterium *Clostridium botulinum* or related species are swallowed. These spores temporarily colonize the infant's large intestine and produce botulinum neurotoxin.

The neurotoxin binds to cholinergic nerve terminals and cleaves intracellular proteins necessary for acetylcholine release. This can result in:

- Bulbar palsies
- Hypotonia
- A symmetric, descending, flaccid paralysis

Signs and symptoms



Patient recovering from infant botulism still has neck muscle weakness

Patients with infant botulism may present with some or all the following signs and symptoms:

- Constipation
- Poor feeding
- Ptosis (drooping eyelid)
- Sluggish pupils
- Flattened facial expression
- Diminished suck and gag reflexes
- Weak and altered cry
- Respiratory difficulty and possibly respiratory arrest

Steps to take

Step 1: Call

Case consultation

If you suspect your infant patient has botulism, **immediately** call [510-231-7600](tel:510-231-7600) for case consultation. Consultation is available 24/

- You will reach the on-call physician at the [Infant Botulism Treatment and Prevention Program](#) (IBTPP) at the California Department of Public Health.

- The physician will provide a no-cost clinical consultation and release [BabyBIG](#)  treatment if the patient's clinical findings indicate infant botulism.

Case reporting

After consulting with the IBTPP, call your [state health department](#)  to:

- Receive guidance on specimen collection, storage, and submission (also refer to the [IBTPP collection guidance](#) )
- Ask questions about testing methods
- Learn about mandatory reporting

Step 2: Treat

If clinical consultation supports infant botulism, begin treatment with BabyBIG as soon as it is available.

Keep in mind, initial diagnosis is based on clinical symptoms. **Do not wait** for laboratory confirmation to begin treatment.



BabyBIG®, human antitoxin for the treatment of infant botulism.

Step 3: Test

A stool or enema specimen is required for definitive diagnosis of infant botulism. Enemas should be performed with sterile, non-bacteriostatic water.

Diagnostic testing is done through your state public health department laboratory. CDC provides testing services for some state public health departments.

This specialized testing often takes days to complete. Follow up with your state health department if you do not receive results with

days.

Step 4: Notify

Infant botulism is a notifiable disease in the United States.

Physicians must promptly notify the state health department of suspected cases. As a courtesy, IBTPP notifies the state health department after BabyBIG infusion is completed. Laboratories must notify the state health department of all confirmed cases.

State health departments report confirmed cases to CDC through the [National Notifiable Diseases Surveillance System](#).

Resources

[Infant Botulism Treatment and Prevention Program](#) 

SOURCES

CONTENT SOURCE:

[National Center for Emerging and Zoonotic Infectious Diseases \(NCEZID\)](#)

SOURCES

- Photos are courtesy of the California Department of Public Health.