



## Shigella

### What is *Shigella*?

Bacteria that cause an intestinal infection

### What are the signs or symptoms?

- Loose, watery stools with blood or mucus
- Fever
- Headache
- Convulsions
- Abdominal pain

### What are the incubation and contagious periods?

- Incubation period: 1 to 7 days; average is 1 to 3 days.
- Contagious period: Untreated, *Shigella* persists in stool for up to 4 weeks.

### How is it spread?

- Fecal-oral route: Contact with feces of children who are infected. This generally involves an infected child contaminating their own fingers and then touching an object that another child touches. The child who touched the contaminated surface then puts their fingers into their own mouth or another person's mouth.
- Very small numbers of organisms can cause infection.
- Children 5 years or younger, adults who care for young children, and others living in crowded conditions are at increased risk of becoming infected with *Shigella*.

### How do you control it?

- Use good hand-hygiene technique at all the times listed in Chapter 2, especially after toilet use or handling soiled diapers and before anything to do with food preparation or eating.
- Ensure proper surface disinfection that includes cleaning and rinsing of surfaces that may have become contaminated with stool (feces) with detergent and water and application of a US Environmental Protection Agency-registered disinfectant according to the instructions on the product label.
- When one or more staff members or children have *Shigella* diarrhea in an early childhood education (ECE) setting, the local health department should

be contacted and may recommend that children or staff members with diarrhea be referred to their health professional for stool culture and antibiotic treatment if their culture test result is positive for *Shigella*. While most *Shigella* infections will resolve in 2 to 3 days without antibiotics, antibiotics are effective in shortening the duration of diarrhea and eliminating the *Shigella* bacteria from the stool.

- Exclude infected staff members who handle food.
- Exclusion for specific types of symptoms (see the section Exclude from educational setting?).

### What are the roles of the educator and the family?

- A child or staff member with bloody diarrhea should have a medical evaluation.
- There are multiple causes of bloody diarrhea. Until the cause of the diarrhea is identified, apply the recommendations for a child or staff member with diarrhea from any cause (see Diarrhea Quick Reference Sheet).
  - Report the condition to the staff member designated by the ECE program or school for decision-making and action related to care of ill children or staff members. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms and notifies the Child Care Health Consultant.
  - Ensure staff members follow the control measures listed in the section How do you control it?
  - Report outbreaks of diarrhea (more than 2 children and/or staff members in the group) to the Child Care Health Consultant, who may report to the local health department.
- If you know a child has *Shigella*
  - Follow appropriate pediatric health professional advice and care for the ill child.
  - Report the infection to the local health department, as the health professional who makes the diagnosis may not report that the infected child is a participant in an ECE program or school, and this could delay controlling the spread of the disease.
  - Reeducate staff members to ensure strict and frequent handwashing, diapering, toileting, food handling, and cleaning and disinfection procedures.
  - In an outbreak, follow the direction of the local health department.

## Exclude from educational setting?

### Yes, if

- The local health department determines exclusion is needed to control an outbreak.
- Stool is not contained in the diaper for diapered children.
- Diarrhea is causing “accidents” for toilet-trained children.
- Stool frequency exceeds 2 stools above normal for that child during the time the child is in the program because this may cause too much work for educators and make it difficult for them to maintain sanitary conditions.
- There is blood or mucus in stool.
- The ill child’s stool is all black.
- The child has a dry mouth, no tears, or no urine output in 8 hours (suggesting the child’s diarrhea may be causing dehydration).
- The child is unable to participate and staff members determine they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.
- The child meets other exclusion criteria (see Conditions Requiring Temporary Exclusion in Chapter 4).

## Readmit to educational setting?

### Yes, when all the following criteria are met:

- Individuals with *Shigella* can return once treatment is complete and at least 1 stool culture result is negative. (Some states may require more than 1 negative stool culture result.)
- A pediatric health professional must clear child for readmission for all cases of *Shigella*.
- Once diapered children have their stool contained by the diaper (even if the stools remain loose) and when toilet-trained children do not have toileting accidents.
- Once stool frequency is no more than 2 stools above normal for that child during the time the child is in the program, even if the stools remain loose.
- When the child is able to participate and staff members determine they can care for the child without compromising their ability to care for the health and safety of the other children in the group.

## Comment

Compared with other bacterial causes of diarrhea, *Shigella* is the most likely to cause outbreaks in ECE or school settings. Such outbreaks may spread to family members and other close contacts of affected children.

