



Louisiana Office of Public Health
Infectious Disease Epidemiology
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Information on Shigellosis Public Information

What is shigellosis?

Shigellosis is an infectious disease caused by a group of bacteria called *Shigella*. Most who are infected with *Shigella* develop diarrhea, fever, and stomach cramps starting a day or two after they are exposed to the bacterium. The diarrhea is often bloody. Shigellosis usually resolves in 5 to 7 days. In some persons, especially young children and the elderly, the diarrhea can be so severe that the patient needs to be hospitalized. Some persons who are infected may have no symptoms at all, but may still pass the *Shigella* bacteria to others.

What sort of germ is *Shigella*?

The *Shigella* germ is part of a family of bacteria that can cause diarrhea in humans. They are microscopic living creatures that pass from person to person. *Shigella* can be very infectious from person to person because it takes very few germs to cause an infection.

How can *Shigella* infections be diagnosed?

Many different kinds of diseases can cause diarrhea and bloody diarrhea, and the treatment depends on which germ is causing the diarrhea. To find out if *Shigella* is responsible for the diarrhea, a laboratory test needs to be performed on the stools. These tests are sometimes not performed unless the laboratory is instructed specifically to look for the organism. The laboratory can also do special tests to tell which type of *Shigella* the person has and which antibiotics, if any, would be best to treat it.

How can *Shigella* infections be treated?

Shigellosis can usually be treated with antibiotics. Mild cases may not need treatment; your doctor will decide if treatment is necessary. The antibiotics commonly used for treatment are ampicillin, trimethoprim /sulfamethoxazole (also known as Bactrim* or Septra*), nalidixic acid, or ciprofloxacin. A good treatment kills the *Shigella* bacteria that might be present in the patient's stools, and shortens the illness. Unfortunately, some *Shigella* bacteria have become resistant to antibiotics and using antibiotics to treat shigellosis can actually make the germs more resistant in the future. Antidiarrheal agents such as loperamide (Imodium*) or diphenoxylate with atropine (Lomotil*) are likely to make the illness worse and should be avoided.

Are there long term consequences to a *Shigella* infection?

Persons with diarrhea usually recover completely, although it may be several months before their bowel habits are entirely normal. Once someone has had shigellosis, they are not likely to get infected with that specific type again for at least several years. However, they can still get infected with other types of *Shigella*.

How do people catch *Shigella*?

The *Shigella* bacteria pass from one infected person to the next. *Shigella* are present in the diarrheal stools of infected persons while they are sick and for a week or two afterwards. Most *Shigella* infections are the result of the bacterium passing from stools or soiled fingers of one person to the mouth of another person. This happens when people do not wash their hands or have good hygiene. It is particularly likely to occur among toddlers who are not fully toilet-trained. Family members and playmates of such children are at high risk of becoming infected.

Shigella infections may be acquired from eating contaminated food. Contaminated food may look and smell normal. Food may become contaminated by infected food handlers who forgot to wash their hands with soap after using the bathroom. Vegetables can become contaminated if they are harvested from a field with sewage in it. Flies can breed in infected feces and then contaminate food. *Shigella* infections can also be acquired by drinking or swimming in contaminated water. Water may become contaminated if sewage runs into it, or if someone with shigellosis swims and defecates in it.

What can a person do to prevent this illness?

There is no vaccine to prevent shigellosis. However, the spread of *Shigella* from an infected person to other persons can be stopped by frequent and careful handwashing with soap. Frequent and careful handwashing is important among all age groups. Frequent, supervised handwashing of all children should be followed in day care centers and in homes with children who are not completely toilet-trained (including children in diapers). When possible, young children with a *Shigella* infection who are still in diapers should not be in contact with uninfected children.

People who have shigellosis should not prepare food or pour water for others until they have been shown to no longer be carrying the *Shigella* bacterium.

If a child in diapers has shigellosis, everyone who changes the child's diapers should be sure the diapers are disposed properly in a closed-lid garbage can, and should wash his or her hands carefully with soap and warm water immediately after changing the diapers. After use, the diaper changing area should be wiped down with a disinfectant such as household bleach, Lysol* or bactericidal wipes.

Basic food safety precautions and regular drinking water treatment prevent shigellosis. At swimming beaches,

having enough bathrooms near the swimming area helps to keep the water from becoming contaminated.

Simple precautions taken while traveling to the developing world can prevent getting shigellosis. Drink only treated or boiled water, and eat only cooked hot foods or fruits you peel yourself. The same precautions prevent traveler's diarrhea in general.

What else can be done to prevent shigellosis?

It is important for the public health department to know about cases of shigellosis. It is important for clinical laboratories to send isolates of *Shigella* to the State Public Health Laboratory so the specific type can be determined and compared to other *Shigella*. If many cases occur at the same time, it may mean that a restaurant, food or water supply has a problem which needs correction by the public health department. If a number of cases occur in a day-care center, the public health department may need to coordinate efforts to improve handwashing among the staff, children, and their families. When a community-wide outbreak occurs, a community-wide approach to promote handwashing and basic hygiene among children can stop the outbreak. Improvements in hygiene for vegetables and fruit picking and packing may prevent shigellosis caused by contaminated produce.

Some prevention steps occur everyday, without you thinking about it. Making municipal water supplies safe and treating sewage are highly effective prevention measures that have been in place for many years.

Some tips for preventing the spread of shigellosis:

- wash hands with soap carefully and frequently, especially after going to the bathroom, after changing diapers, and before preparing foods or beverages
- dispose of soiled diapers properly
- disinfect diaper changing areas after using them
- keep children with diarrhea out of child care settings
- supervise handwashing of toddlers and small children after they use the toilet
- persons with diarrheal illness should not prepare food and drinks for others
- if you are traveling to the developing world, "boil it, cook it, peel it, or forget it"
- avoid drinking pool or lake water