



Shigellosis

(*Shigella* spp.)

What is shigellosis?

Shigellosis is a highly contagious diarrheal disease caused by a group of bacteria called *Shigella*.

Who is at risk for shigellosis?

Young children are most likely to get shigellosis, but people of all ages can be affected. Many outbreaks are related to child care settings and schools, as young children who contract shigellosis often spread the disease to family members and others in their communities. Other people who may be at greater risk for shigellosis include travelers to developing countries and sexually active men with same sex partners.

What are the symptoms of shigellosis?

People infected with *Shigella* may experience diarrhea (sometimes bloody), nausea, vomiting, fever, abdominal pain, cramps, and tenesmus (a painful sensation of needing to pass stools even when bowels are empty). Symptoms usually last about five to seven days. Some infected people may not experience any symptoms, but can still shed *Shigella* in their stools.

How soon do symptoms appear?

Symptoms can start one to seven days after exposure, but usually begin within one to two days.

How is *Shigella* spread?

Shigella is found in the intestinal tracts of infected people. The bacteria are spread by direct or indirect contact with fecal material from an infected person. A person with shigellosis may spread infection to others indirectly by contaminating food, water, or inanimate objects (some common examples include toys, bathroom fixtures, and changing tables). Produce harvested from a field with sewage in it can also become contaminated. Water may become contaminated by an infected person swimming or playing in it, or by sewage running into it. Flies can also spread infection by physically transporting *Shigella* bacteria. Infection can also occur if a person has contact with stool during sexual contact with someone who is sick or has recently recovered from shigellosis.

When and for how long is a person able to spread the disease?

Shigella can be spread for as long as the organism is in a person's stool. People can pass *Shigella* in their stool for up to four weeks (possibly longer in asymptomatic people). Certain antibiotics may shorten the length of time a person can shed the organism in their stool.

How is a person diagnosed?

Laboratory tests can identify *Shigella* in the stool of an infected person. Special laboratory tests may also be done to determine which antibiotics, if any, will work best to treat the infection.

What is the treatment?

Most people with shigellosis will recover on their own and do not require antimicrobial therapy. Fluid and electrolyte replacement (preferably with oral rehydration solutions) is recommended to prevent dehydration. Antimotility agents (such as Imodium[®]) are not recommended because they may prolong illness and increase the risk of complications. Antibiotics may be prescribed to treat severe cases or to shorten the length of time a person can shed the organism in his/her stool which may be important for food handlers, children in child care, or institutionalized individuals.

Does past infection make a person immune?

No.

Should children or others be excluded from child care, work or other activities if they have shigellosis?

All children should be excluded from child care until diarrhea ceases and one negative stool culture is obtained. Exclusion from schools should be handled on a case-by-case basis. Health care workers and people who provide child care should be excluded from caring for patients or children until diarrhea ceases and one negative stool culture is obtained.

Food handlers must be excluded from handling food until diarrhea ceases and two consecutive negative stool cultures are obtained at least 24 hours apart and at least 48 hours after taking antibiotics, or until they have been asymptomatic for seven days. If a food handler was diagnosed but had no symptoms, he/she cannot return to work until seven days have passed since the diagnosis. Approval from the food establishment's regulatory authority is required before a food handler can return to work.

What can be done to prevent the spread of shigellosis?

Since the bacteria are passed in feces, the single most important prevention activity is careful hand washing with soap and water after using the toilet. If a child in diapers has shigellosis, everyone who changes the child's diapers should make sure the diapers are disposed of properly and carefully wash their hands with soap and clean, running water after changing diapers. After use, the diaper changing area should be wiped down with disinfectant. People with shigellosis should not prepare food or drinks for others.

Additional Information:

For additional information, call the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. *Red Book: 2018 Report of the Committee on Infectious Diseases*. 31st ed. [Children in Out-Of-Home Child Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2018: 122-136.
2. *Red Book: 2018 Report of the Committee on Infectious Diseases*. 31st ed. [Shigella Infections]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2018: 723-727.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. Shigellosis. American Public Health Association. 2015: 556-561.
4. Centers for Disease Control and Prevention. (2018). Shigella. www.cdc.gov/shigella/index.html.
5. North Dakota Administrative Code. (2018). 33-33-04.1. <http://www.legis.nd.gov/information/acdata/pdf/33-33-04.1.pdf>.