Fact Sheet

# Shigella Infection

ST. CLAIR COUNTY HEALTH DEPARTMENT
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## What is Shigella Infection

Shigella infection (shigellosis) is an intestinal disease caused by a family of bacteria known as shigella. Shigella germs are microscopic living creatures that pass from person to person. The Shigella germ was discovered over 100 years ago by a Japanese scientist named Shiga, for whom they are named.

Every year, about 14,000 cases of shigellosis are reported in the United States. Because many milder cases are not diagnosed or reported, the actual number of infections may be twenty times greater. Shigellosis is particularly common and causes recurrent problems in settings where hygiene is poor and can sometimes sweep through entire communities. It is more common in summer than winter. Children, especially toddlers aged 2 to 4, are the most likely to get shigellosis.

In the developing world, shigellosis is far more common and is present in most communities most of the time.

## How is it Spread?

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 up to 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 basic hygiene and hand washing habits are inadequate and can happen during certain types of sexual activity. 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 usually looks and smells normal. Food may become contaminated by infected food handlers who forget 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. Water may become contaminated with Shigella bacteria if sewage runs into it or if someone with shigellosis swims in or plays with it (especially in splash tables, untreated wading pools, or shallow play fountains used by daycare centers). Shigella infections can then be acquired by drinking, swimming in, or playing with the contaminated water. Outbreaks of shigellosis have also occurred among men who have sex with men.

## Signs and Symptoms

Signs and symptoms of shigella infection usually begin a day or two after contact with shigella. Signs and symptoms may include:

- Diarrhea (often containing blood or mucus)
- Abdominal cramps
- Fever

Although some people have no symptoms after they've been infected with shigella, their feces are still contagious.

**When to see a doctor**

Contact your doctor or seek urgent care if you or your child has bloody diarrhea or diarrhea severe enough to cause weight loss and dehydration. Also, contact your doctor if you or your child has diarrhea and a fever of 101 F (38 C) or higher.

## Diagnosis

Many different kinds of germs can cause diarrhea, so establishing the cause will help guide treatment. Determining that Shigella is the cause of the illness depends on laboratory tests that identify Shigella in the stools of an infected person. The laboratory can also do special tests to determine which antibiotics, if any, would be best to treat the infection.

## Treatment

Persons with mild infections usually recover quickly without antibiotic treatment. However, appropriate antibiotic treatment may shorten the duration of illness and decrease the spread of infection. Antibiotic treatment is recommended for patients with severe disease, bloody diarrhea, or compromised immune systems. Resistance to traditional first-line drugs like ampicillin and trimethoprim-sulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When susceptibility is unknown or when an ampicillin- or trimethroprim-sulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin. Antidiarrheal agents can make the illness worse and should be avoided.

## Prevention

Although the World Health Organization has been working on a shigella vaccine, none is available yet. To prevent the spread of shigella:

- Wash hands frequently and thoroughly.
- Supervise small children when they wash their hands.
- Dispose of soiled diapers properly.
- Disinfect diaper-changing areas after use.
- Don't prepare food for others if you have diarrhea.
- Keep children with diarrhea home from child care, play groups or school.
- Avoid swallowing water from ponds, lakes or untreated pools.

***For more sources of information on this topic visit:***
ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co
MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs
CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov
THE MAYO CLINIC www.mayoclinic.org