

Typhoid Fever

What is typhoid fever?

Typhoid fever is a bacterial infection of the intestinal tract (bowels/gut) and occasionally the bloodstream caused by the *Salmonella Typhi* bacteria. This strain of bacteria lives only in humans. It is an uncommon disease with 5 to 22 cases occurring annually in WA State. Most of the cases are acquired during foreign travel to developing countries.

Who gets typhoid fever?

Anyone can get typhoid fever, but travelers visiting developing countries where the disease is common are at the greatest risk. Occasionally, local cases can occur from exposure to a person who previously recovered from typhoid but still carries the bacteria and sheds it in their feces (poop).

How is typhoid fever spread?

Salmonella Typhi is spread via the fecal-oral route. People with typhoid fever carry the bacteria in their bloodstream and intestinal tract (bowels/gut). In addition, a small number of people, called carriers, recover from typhoid fever but continue to carry the bacteria. Both ill persons and carriers shed *Salmonella Typhi* in their feces (poop).

You can get typhoid fever if you eat food or drink beverages that have been handled by a person who is shedding *Salmonella Typhi* in their poop and who has not washed their hands thoroughly after going to the bathroom. It is also spread if sewage contaminated with *Salmonella Typhi* bacteria gets into the water you use for drinking or washing food. Therefore, typhoid fever is more common in areas of the world where handwashing is less frequent, and water is more likely to be contaminated with sewage.

What are the symptoms of typhoid fever and when do they appear?

Symptoms may be mild or severe and may include fever, headache, constipation, or diarrhea (loose stool/poop), weakness, stomach pain, loss of appetite, and cough. Some people develop a rash of rose-colored spots on the trunk of the body. It is common for symptoms to go away and then appear again. Symptoms usually appear within 8-14 days after infection but the time from exposure to illness can be between 6 and 30 days.

How is typhoid fever diagnosed?

Symptoms may cause a health care provider to suspect typhoid fever, but a stool or blood test (sometimes urine) which tests for the presence of the bacteria, is the only way to diagnose it.

How is typhoid fever treated?

Typhoid fever is treated with antibiotics. Resistance to multiple antibiotics is increasing among the *Salmonella* bacteria that cause typhoid fever, complicating treatment of infections. People who do not get treatment may continue to have fever for weeks or months, and as many as 20% may die from complications of the infection. Typhoid can be effectively treated with a complete course of antibiotics.

Can I stop taking the medication/antibiotic when the symptoms disappear?

No. Even if your symptoms seem to go away, you may still be carrying *Salmonella Typhi*. If so, the illness could return, or you could pass the bacteria to other people. In fact, if you are a healthcare worker or work at a job where you handle food or care for small children, you may not be able to return to work until a doctor has determined you no longer carry the bacteria.

If you are being treated for typhoid fever it is important to do the following to lower the chance that you will pass the bacteria on to someone else.

- Keep taking antibiotics for as long as the doctor has recommended.
- Wash your hands carefully with soap and water after using the bathroom.
- Do not prepare or serve food for other people.

Should infected people stay out of school/work?

Most infected people may return to work or school when they have completed their antibiotics and recovered if they carefully wash hands after using the toilet. Children in daycare and healthcare workers must obtain the approval of the local health department before returning to their routine childcare/work activities. Food handlers may not return to work until three consecutive negative stool cultures are confirmed.

Does past infection with typhoid make a person immune?

No. People can be reinfected if they come into contact with the bacteria again.

What can be done to prevent the spread of typhoid?

A vaccine is available for people traveling to developing countries where significant exposure may occur and for persons with household exposures of a confirmed carrier. For more information about vaccination, speak to your healthcare provider. It is equally important to pay strict attention to food and water precautions while traveling to countries where typhoid is common. When drinking water in

a developing country, you should buy it in a sealed bottle, boil it, or chemically treat it. When eating foods, avoid raw fruits and vegetables that cannot be peeled and washed, undercooked foods, and foods from street vendors. Additionally, food handlers may not work while sick with typhoid.

Are close or household contacts of a person with typhoid at risk of infection?

Yes, transmission can occur with close contacts through food preparation and common meals.

All household and close contacts in an outbreak setting should work with their healthcare provider to obtain a stool culture to rule out infection.

Household and other close contacts should not work as food handlers, or in childcare, residential care, or health care settings or attend childcare, until they have at least 2 consecutive negative stool cultures taken at least 24 hours apart. These contacts can then return to work or child care but should have stool cultures performed weekly until the case is no longer excreting *S. Typhi* or the contact with the case is discontinued.

All symptomatic household members and other close contacts should be encouraged to seek medical attention from their healthcare provider.

For more information:

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