



Typhoid Fever Fact Sheet

1. **What is typhoid fever?** - Typhoid fever is a serious bacterial infection of the intestinal tract and bloodstream. In the United States, 75% of the annually reported cases are acquired during foreign travel to underdeveloped countries. The germ that causes typhoid fever is a unique strain of *Salmonella* called *Salmonella enterica* serotype Typhi which is found only in humans.

2. **Who gets typhoid fever?** - Anyone can get typhoid fever but the greatest risk exists to travelers visiting areas where the disease is common. U.S. travelers to Asia, Africa and Latin America are at greatest risk. Occasionally, cases without travel history can be traced to exposure to a person who is a chronic carrier of the bacteria.

3. **How are the germs spread?** - Typhoid germs are present in the feces (stool) and urine of infected people. The germs spread to uninfected people when they eat foods or drink water contaminated by the feces or urine of an infected individual. Particular high risk foods in endemic areas include shellfish, raw fruits and vegetables, and unpasteurized milk products. Additionally, infections spread by sexual contact have been documented.

4. **What are the symptoms?** - Symptoms may include high fever, weakness, headache, or loss of appetite. Some persons may also develop a rash of flat, rose-colored spots. Relapses are common. Illness can range from mild to severe. Fatalities are uncommon with appropriate and timely antibiotic treatment.

5. **How soon do symptoms appear?** - Symptoms generally appear 8 to 14 days after exposure, but can shorter and longer amounts of time have been documented, as the amount of bacteria ingested and a person's overall health status determines the length of time until symptoms appear.

6. **For how long can an infected person carry typhoid fever germs?** - Most ill persons will be rid of the bacteria by the time their symptoms end. However, up to 10% of ill persons will carry and shed typhoid bacteria for 3 months. Approximately

2-5% percent of infected persons become lifelong carriers of the germ and this tends to occur more often in adults than in children.

7. How is typhoid fever diagnosed? – Typhoid fever is usually diagnosed by culturing the organism from a clinical specimen, including stool, blood, urine, and bone marrow. Serological tests are available, but are less reliable for diagnosis than culturing the organism.

8. How is typhoid fever treated? - Specific antibiotics such as trimethoprim-sulfamethoxazole, ampicillin or ciprofloxacin are often used to treat cases of typhoid fever. Because the organism can be resistant to antibiotics, treatment decisions should be guided by laboratory test results. Treatment is important, as persons who do not get treatment may continue to have symptoms for weeks or months and up to 20% may die from infection complications.

9. Should infected people be isolated? – Infected persons should be isolated under contact precautions during their illness. Most infected people may return to work or school when they have recovered, provided that they carefully wash their hands after toilet visits. Children in child care and any person who work in childcare, food handling or direct patient care must obtain the approval of the local or state health department before returning to their routine activities. This approval is based on State laws that require laboratory evidence that the germ is not present in the person's stool.

10. How can typhoid fever be prevented? – Oral and injectable vaccines are available but are generally reserved for people traveling to underdeveloped countries where significant exposure may occur. In addition to vaccination, strict attention to food and water precautions while traveling to such countries is the most effective preventive method. Remember CDC's food safety slogan for travelers: "Boil it, cook it, peel it, or forget it."

11. For more information about Typhoid Fever:

http://www.cdc.gov/nczved/divisions/dfbmd/diseases/typhoid_fever/index.html

This fact sheet provides general information. Please contact your physician for specific clinical information.

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