



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory

Typhoid Fever in a Food-handler on a Cruise Ship May 19, 2006

Philadelphia Department of Public Health (PDPH) has been notified of a case of typhoid fever in a patient who works as a food handler on a cruise ship that sailed between Philadelphia and Bermuda from April 29 – May 6, 2006 and May 6 – May 13, 2006. The patient is thought to have contracted this infection outside of the United States, but may have been contagious from April 29 to May 13, 2006. Investigation to identify possible contacts and cases is ongoing. As the patient is a food handler, passengers and co-workers on the ship may be at risk for infection.

Clinical signs and symptoms of typhoid fever are listed in the FAQs below. Clinicians are urged to consider the diagnosis of typhoid fever in anyone with an appropriate clinical syndrome who reports travel on a cruise ship embarking from Philadelphia from April 29 to May 13. In addition, clinicians are asked to perform a detailed travel history, including cruise ship travel, on any patient with confirmed *S. typhi* infection. Please report confirmed cases to Division of Disease Control, PDPH, (215) 685-6748.

Frequently Asked Questions

What is typhoid fever?

Typhoid fever is a serious infection of the blood and gastrointestinal tract caused by a bacterium called *Salmonella typhi* (also known as *S. enterica* var. *typhi*). Although there are only approximately 400 cases reported per year in the United States, the disease is far more common in developing countries, with approximately 20 million cases per year.

How is typhoid fever spread?

S. typhi is shed in the stool, and is spread by the oral-fecal route. A small number of persons, called carriers, are no longer symptomatic from their *S. typhi* infection but still carry it in their gastrointestinal tract. Both ill persons and carriers are capable of shedding *S. typhi*. In countries with poor sanitation, sewage containing *S. typhi* can contaminate water used for drinking or washing food. Persons can contract typhoid fever by drinking or eating food that has been contaminated by sewage or handled by someone who is shedding *S. typhi*. The incubation period of typhoid fever is typically from 8 to 14 days but can range from 3 to 60 days.

What are the signs and symptoms of typhoid fever?

The symptoms of typhoid fever are non-specific. However, patients usually have a sustained fever as high as 103° or 104° F. In addition, they may complain of a headache, feeling weak, abdominal pain, constipation, or diarrhea. Some patients may have a flat, rose-colored macular rash on their trunk. In addition, some patients may have a relatively low pulse for the degree of their fever.

How is typhoid fever diagnosed?

The only way typhoid fever can be definitively diagnosed is from isolating the bacteria from stool or blood culture.

How is typhoid fever treated?

Common antibiotics, such as ciprofloxacin, ceftriaxone, ampicillin, and azithromycin can be used. Recently, this organism has been found to be resistant to some antibiotics, so treatment should be guided by antibiotic susceptibility results. In addition, it is very important that persons with *S. typhi* infection wash or sanitize their hands after using the bathroom, and do not prepare food for others, so that they do not spread the disease.