

Typhoid and Paratyphoid Fevers



What are typhoid and paratyphoid fevers?

Typhoid fever is an infection of the intestines that spreads to the blood. It is caused by the bacterium *Salmonella typhi*. Paratyphoid fever is similar to typhoid fever, but less severe; it is caused by the bacterium *Salmonella paratyphi*. Symptoms include a sustained fever, headache, cough, loss of appetite, vomiting, constipation, diarrhoea, abdominal pain and delirium. Pale red spots may occur over the trunk of the body. Infection may be mild or asymptomatic. Complications include intestinal bleeding, intestinal perforation and renal failure. Typhoid fever can be fatal in up to 20% of cases if left untreated. Relapses occur in about 10% of cases.

How are they diagnosed?

Diagnosis depends on culture of the bacteria from blood, faeces or urine.

How do you catch them?

Infection follows the ingestion of water or food contaminated by human faeces or urine; this includes shellfish exposed to sewage, milk/milk products contaminated during processing and contaminated fruit and vegetables. Any food that is handled by an infected person is potentially contaminated. It can also be caught directly from a case or a carrier. A carrier is someone with no symptoms but who has bacteria present in his/her faeces.

Who is affected?

Infection occurs worldwide but is most common in developing countries. In England and Wales 320 cases were diagnosed in 2000, about two-thirds of which were caught abroad. Anyone can get the disease, but travellers to developing countries are at greatest risk.

Is there any treatment?

Prompt antibiotic treatment is strongly recommended. Extra fluids are important, especially if you have diarrhoea or vomiting. This is particularly critical for babies, children, pregnant women and the elderly. Hospital admission may be necessary.

How long am I infectious for?

You are infectious for as long as the bacteria are present in your stool, from the first week of infection. See below for advice about hygienic precautions and returning to work. Approximately 10% of untreated typhoid cases are still infectious after three months; and up to 5% become chronic carriers.

Are vaccinations available?

A vaccine is available for typhoid and is recommended for travellers to countries in which the illness is endemic. Consult your general practitioner for advice about the country you are visiting. Laboratory workers dealing with potentially infected specimens are also eligible for vaccination. The vaccine gives protection for three years.

How is further spread prevented?

Typhoid fever is notifiable, which means that your doctor is legally obliged to inform the Environmental Health Department of your case. An Environmental Health Officer or Consultant of Communicable Disease Control will contact or visit you to identify the source of contamination and help you prevent further spread of infection.

How can it be prevented?

- ◆ Hand washing is the most important part of infection control. Wash hands thoroughly with hot soapy water, particularly before eating or preparing food, after using or cleaning the toilet, changing a nappy, handling soiled items or attending to a patient. Dry your hands thoroughly.
- ◆ Wash all fruit and vegetables with running water.
- ◆ Do not consume unpasteurized milk or dairy products.
- ◆ Boil or steam shellfish for at least 10 minutes before serving.
- ◆ Avoid swallowing water when doing water sports in rivers and lakes.
- ◆ Be particularly careful when travelling abroad to countries where sanitation is poor. Boil all your drinking water for one minute, including water used for brushing teeth. Alternatively buy bottled water. Beware of ice. Avoid raw fruit and vegetables that have not been cooked or peeled, such as salads. Peel all fruits yourself. Select foods that are cooked and served hot. Do not buy from street vendors.

How can I prevent giving this infection to someone else?

- ◆ Don't prepare or handle food for other people until you have been symptom-free for 48 hours.
- ◆ If cleaning up diarrhoea or vomit, wash the surface with hot soapy water, before rinsing and allowing to dry. Paper towels or disposable cloths should be used for cleaning.
- ◆ Clean toilet bowls and seats, flush handles, door handles and taps at least daily with a household cleaner before rinsing and allowing to dry. Use disposable cloths.
- ◆ Soiled clothing and bedding should be washed on a hot cycle. Articles that are heavily soiled can be soaked beforehand in a disinfectant. After loading the washing machine wipe the outer surface with a disinfectant.
- ◆ Wear rubber gloves when cleaning the toilet, cleaning up vomit or diarrhoea and loading the washing machine with soiled clothing.
- ◆ Set aside a towel for your own personal use.
- ◆ Complete the prescribed course of antibiotics.

What about going to work or school?

The following groups, whether the case or a contact of a case, will be informed by the Environmental Health Officer or their doctor about how long they should remain at home:

- ◆ people working in the food and catering business.
- ◆ staff of healthcare facilities, particularly those looking after or serving food to infants, the elderly or the debilitated.
- ◆ children aged less than five years old who attend nurseries or playgroups.
- ◆ older children or adults who find it difficult to implement good standards of personal hygiene eg. those with learning disabilities or special needs, or in situations where hygienic arrangements are unreliable.

If you do not fall into any of the above groups, you should stay at home until you are well with formed stools.

Where can I get more information?

Talk to your general practitioner (GP) or for further information or to raise a question please access www.birmingham.gov.uk or telephone 0121 303 6007.