

TYPHOID AND PARATYPHOID FEVER



What is Typhoid fever?

Typhoid fever is an infectious feverish disease with severe symptoms in the digestive system in the 2nd phase of the illness.

Classic Typhoid fever is a serious disease. It can be life-threatening, but antibiotics are an effective treatment. The disease lasts several weeks and convalescence takes some time.

The disease is transmitted from human to human via food or drinking water, and it is therefore mainly hygiene and sanitary conditions that determine its spread.

What caused Typhoid and paratyphoid fever?

Typhoid fever is caused by an infection with the bacterium *Salmonella Typhi*, which is only found in humans and may lead to serious illness. When the bacterium passes down to the bowel, it penetrates through the intestinal mucosa to the underlying tissue. If the immune system is unable to stop the infection here, the bacterium will multiply and then spread to the bloodstream, after which the first signs of disease are observed in the form of fever.

The bacterium penetrates further to the bone marrow, liver and bile ducts, from which bacteria are excreted into the bowel contents. In the second phase of the disease the bacterium penetrates the immune tissue of the small intestine, and the often violent small-bowel symptoms begin.

Paratyphoid fever is caused by *Salmonella Paratyphi*, a similar and generally milder disease. *Salmonella enteritidis* and *Salmonella Typhimurium* are other *Salmonella* bacteria and caused food poisoning and diarrhoea.

How is Typhoid fever spread?

Salmonella Typhi can only attack humans, so the infection always comes from another human, either an ill person or a healthy carrier of the bacterium.

The bacterium is passed on with water and foods and can withstand both drying and refrigeration. As it is necessary for someone to be exposed to a certain quantity of bacteria before symptoms occur, the storage of foods is also of great significance.

They must be kept refrigerated and prepared correctly, as required by general hygiene, so that any bacteria present are not able to multiply significantly.

Where does Typhoid fever occur?

Typhoid fever is not a tropical disease and is related to hygiene and sanitary conditions rather than the climate itself.

Symptoms

The incubation period is 10 to 20 days and depends on, among other things, how large a dose of bacteria has been taken in. In the mild disease, the bacterium is eliminated very early in the course of the disease and there are perhaps only mild symptoms.

It is possible to become a healthy carrier of infection.



There are 2 phases of classic typhoid fever:

-1st phase: the patient's temperature rises gradually to 40°C and general condition becomes very poor with bouts of sweating, no appetite, coughing and headache. Constipation and skin symptoms may be the clearest symptoms. Children often vomit and have diarrhoea. The 1st phase lasts a week and towards the end of patient shows increasing listlessness and clouding of consciousness.

-2nd phase: in the 2nd to 3rd weeks of the disease, symptoms of intestinal infection are manifested and the fever remains very high and the pulse becomes weak and rapid. In the 3rd week the constipation is replaced by severe pea-soup like diarrhoea. The faeces may also contain blood. It is not until the 4th or 5th week that the fever drops and the condition slowly improves.

Complications

Intestinal perforation or profuse bleeding from the intestinal mucosa may occur if typhoid fever is left untreated.



Outlook

There are good prospects of cure with antibiotics and the patient can be discharged from hospital when the general condition is stable. However, good general hygiene should be maintained in the home, as bacteria may continue to be excreted for several more weeks.

What can you do yourself?

There are several forms of vaccine that protect against *Salmonella Typhi*. Most clinics use the injectable form, or the oral form. It should be administered at least 2 weeks prior to potential typhoid exposure and is effective for 3 years.

The routes of infection depend on hygiene conditions and general kitchen hygiene should be maintained to prevent infection.

How is Typhoid fever treated?

Treatment requires admission to hospital and loss of fluid and salt is treated with fluid therapy as appropriate. The bacterium is controlled with antibiotics, and in very rare cases steroid medicines are also included in the treatment.

Prevention

Within the hospital setting, infected people are cared for in isolation. Proper hand hygiene is the most important way of preventing further spread in hospital.