

Wiping Out Waterborne Diseases



Earlier this year at least four people died and more than 600 were infected when typhoid fever broke out in Delmas, Mpumalanga. But what is typhoid fever and where does it come from?

Typhoid fever is an acute severe illness caused by the bacterium *Salmonella typhi*. The bacterium lives only in humans. Persons with typhoid fever carry the bacteria in their bloodstream and intestinal tract. In addition, a small number of persons, called carriers, recover from typhoid fever but continue to carry the bacteria. Both ill persons and carriers shed *S. typhi* in their faeces (stool).

Typhoid fever was described as long ago as ancient Greek times, and has claimed many lives over the centuries. In the Anglo-Boer war, for example, the British lost more troops from typhoid fever than from war wounds.

Today, it is estimated that at least 12 to 13 million cases occur per year worldwide. In South Africa, the disease is endemic, meaning that it is constantly present, and occurs at a low level of frequency, although the potential for outbreaks does exist.

HOW DO YOU GET TYPHOID FEVER?

You can get typhoid fever if you eat food or drink beverages that have been handled by a person who is

shedding *S. typhi* or if sewage contaminated with *S. typhi* bacteria gets into the water you use for drinking or washing food. Once *S. typhi* bacteria are eaten or drunk, they multiply and spread into the bloodstream. This is why it is so important that you wash your hands after going to the bathroom and before handling or eating food.

Symptoms can be mild or severe and include fever as high as 39°C to 40°C, malaise, headache, constipation or diarrhoea, rose-coloured spots on the chest area and enlarged spleen and liver. Most people show symptoms one to three weeks after exposure.

It is said that, if left untreated, about 12% to 20% of people with typhoid will die. However, with appropriate antibiotics, the mortality rate is less than 1%. In untreated cases, the infection usually lasts two to four weeks. About 10% of survivors will relapse, and about 3% will become carriers.

WHAT PRECAUTIONS CAN I TAKE?

- Always wash your hands well with soap and water after going to the toilet and before handling food or eating.



- Boil water before drinking.
- Avoid fruit and vegetables that cannot be peeled, e.g. lettuce are easily contaminated and difficult to wash well.



ANOTHER WATERBORNE DISEASE: CHOLERA

Cholera is an acute, diarrhoeal illness caused by infection of the intestine with the bacterium *Vibrio cholerae*. About one in 20 infected persons has severe disease characterised by profuse watery diarrhoea, vomiting, and leg cramps. In these persons, rapid loss of body fluids leads to dehydration and shock. Without treatment, death can occur within hours.

A person may get cholera by drinking water or eating food contaminated with the cholera bacterium. In an epidemic, the source of the contamination is usually the faeces of an infected person. The disease can spread rapidly in areas with inadequate treatment of sewage and drinking water.

In 2001/2002, South Africa suffered one of the worst cholera epidemics in its history, when more than 100 000 people were infected and hundreds died. The most severely affected areas were the country's poorest provinces KwaZulu-Natal and Eastern Province where millions of people did not have access to clean water and proper sanitation.



IF YOU ARE BEING TREATED FOR TYPHOID FEVER, REMEMBER THE FOLLOWING:

- Take the prescribed antibiotics for as long as the doctor has asked you to take them.
- Wash your hands carefully with soap and water after using the bathroom.
- Do not prepare or serve food to other people.