Typhoid Fever

Getting vaccinated

If you are traveling to anywhere in Asia, specifically India, or any other country where typhoid is common, you should consider being vaccinated against typhoid.

Vaccinations will need to be completed at least 1-2 weeks before you travel so that the vaccine has time to take effect. Typhoid vaccines lose effectiveness after several years. If you were vaccinated in the past you may need to get a booster, so check with your doctor. Taking antibiotics will not prevent typhoid fever; they only help treat it (CDC, 2013).

Typhoid fever continues to be a major health problem in spite of the use of antibiotics and the development of newer antibacterial drugs, so prevention is key (Khan et al., 2011).

Typhoid Vaccines Available in the United States

<table>
<thead>
<tr>
<th>Vaccine Name</th>
<th>How Given</th>
<th>Number of Doses Necessary</th>
<th>Time Between Doses</th>
<th>Time immunization should be completed by (before possible exposure)</th>
<th>Minimum Age For Vaccination</th>
<th>Booster Needed Every...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ty21a (Vivotif Berna, Swiss Serum and Vaccine Institute)</td>
<td>1 capsule by mouth</td>
<td>4</td>
<td>2 days</td>
<td>1 week</td>
<td>6 years</td>
<td>5 years</td>
</tr>
<tr>
<td>ViCPS (Typhim Vi, Pasteur Merieux)</td>
<td>Injection</td>
<td>N/A</td>
<td>2 weeks</td>
<td>2 years</td>
<td>2 years</td>
<td></td>
</tr>
</tbody>
</table>

Research

In one study done on the Typhoid fever outbreak in West Bengal, India in April of 2007 there were conclusions made that certain recommendations should be made to prevent further outbreaks. This includes educating those who handle food on food preparation and serving, daily chlorination of the piped water, and educating the community of water safety. The long-term control of this disease needs to include both food safety and water safety and environmental sanitation practices need to be implemented to keep from further outbreaks. (Bhunia et al., 2007).

Other Resources

Travel immunizations and health- find location near you at http://www.passporthealthusa.com/
Information on vaccines: CDC http://www.cdc.gov/vaccines/vpd-vac/typhoid/default.htm

Traveling to India or anywhere in Asia? Know the facts before you go. Typhoid fever is one of the most common traveler's diseases. This disease is preventable, so if you are planning to travel outside the United States, you should know about typhoid fever and what steps you can take to protect yourself.
Typhoid fever is a life-threatening illness caused by the bacterium Salmonella Typhi. Up to 75% of the cases are acquired while traveling internationally. Typhoid fever is still common in the developing world, where it affects about 21.5 million persons each year. The easiest way to avoid the disease is to avoid risky foods and drinks and get vaccinated.

“Typhoid fever causes more than 21 million cases of disease and 200,000 deaths yearly worldwide, with more than 90% of the disease burden being reported from Asia.” (van Damme et al., 2011). India is an area of a strong endemic of this disease.

Where can you get typhoid fever?

Typhoid fever occurs in many of the developing countries. Over the past 10 years, travelers from the United States to Asia, Africa, and Latin America have been especially at risk. This disease is the most common communicable disease in India.

How is typhoid fever spread?

The bacteria Salmonella Typhi lives in humans and they carry this bacteria in their bloodstream and intestinal tract. You can get typhoid fever if you eat food or drink beverages that have been handled by a person who is shedding Salmonella Typhi or if sewage contaminated with this bacteria gets into the water you use for drinking or washing food. When the bacteria enters your body, it multiplies and spreads into the bloodstream.

Prevention Measures

- Buy bottled or bring water to a rolling boil for 1 minute before you drink it. Bottled carbonated water is safer than uncarbonated water.
- Ask for drinks without ice unless the ice is made from bottled or boiled water. Avoid popsicles and flavored ices that may have been made with contaminated water.
- Eat foods that have been thoroughly cooked and that are still hot and steaming.
- Avoid raw vegetables and fruits that cannot be peeled. Vegetables like lettuce are easily contaminated and are very hard to wash well.
- When you eat raw fruit or vegetables that can be peeled, peel them yourself. (Wash your hands with soap first.) Do not eat the peelings.
- Avoid foods and beverages from street vendors. It is difficult for food to be kept clean on the street, and many travelers get sick from food bought from street vendors.

What are the signs and symptoms of typhoid fever?

People will usually have a sustained fever as high as 103° to 104° F and they may also feel weak, have stomach pains, headache, or loss of appetite. Some people will have a rash of flat, rose-colored spots on their body.