1 What is typhoid?

Typhoid (typhoid fever) is a serious disease. It is caused by bacteria called *Salmonella Typhi*.

Typhoid causes a high fever, weakness, stomach pains, headache, loss of appetite, and sometimes a rash. If it is not treated, it can kill up to 30% of people who get it.

Some people who get typhoid become “carriers,” who can spread the disease to others.

Generally, people get typhoid from contaminated food or water. Typhoid is not common in the U.S., and most U.S. citizens who get the disease get it while traveling. Typhoid strikes about 21 million people a year around the world and kills about 200,000.

**Typhoid vaccine can prevent typhoid.**

2 Typhoid vaccines

There are two vaccines to prevent typhoid. One is an inactivated (killed) vaccine gotten as a shot, and the other is live, attenuated (weakened) vaccine which is taken orally (by mouth).

3 Who should get typhoid vaccine and when?

Routine typhoid vaccination is not recommended in the United States, but typhoid vaccine is recommended for:

- Travelers to parts of the world where typhoid is common. (NOTE: typhoid vaccine is not 100% effective and is not a substitute for being careful about what you eat or drink.)
- People in close contact with a typhoid carrier.
- Laboratory workers who work with *Salmonella Typhi* bacteria.

**Inactivated Typhoid Vaccine (Shot)**

- Should not be given to children younger than 2 years of age.
- One dose provides protection. It should be given at least 2 weeks before travel to allow the vaccine time to work.
- A booster dose is needed every 2 years for people who remain at risk.

**Live Typhoid Vaccine (Oral)**

- Should not be given to children younger than 6 years of age.
- Four doses, given 2 days apart, are needed for protection. The last dose should be given at least 1 week before travel to allow the vaccine time to work.
- A booster dose is needed every 5 years for people who remain at risk.

Either vaccine may be given at the same time as other vaccines.

4 Some people should not get typhoid vaccine or should wait

**Inactivated Typhoid Vaccine (Shot)**

- Anyone who has had a severe reaction to a previous dose of this vaccine should not get another dose.

Over . . .
Live Typhoid Vaccine (Oral)

- Anyone who has had a severe reaction to a previous dose of this vaccine should not get another dose.
- Anyone whose immune system is weakened should not get this vaccine. They should get the inactivated typhoid vaccine instead. These people include anyone who:
  - Has HIV/AIDS or another disease that affects the immune system.
  - Is being treated with drugs that affect the immune system, such as steroids, for 2 weeks or longer.
  - Has any kind of cancer.
  - Is taking cancer treatment with x-rays or drugs.
- Oral typhoid vaccine should not be given within 24 hours of certain antibiotics.

Ask your doctor or nurse for more information.

5 What are the risks from typhoid vaccine?

A vaccine, like any medicine, could possibly cause serious problems, such as severe allergic reactions. The risk of a vaccine causing serious harm, or death, is extremely small. Serious problems from either of the two typhoid vaccines are very rare.

Inactivated Typhoid Vaccine (Shot)

Mild Reactions

- Fever (up to about 1 person per 100).
- Headache (up to about 3 people per 100).
- Redness or swelling at the site of the injection (up to 7 people per 100).

Live Typhoid Vaccine (Oral)

Mild Reactions

- Fever or headache (up to about 5 people per 100).
- Abdominal discomfort, nausea, vomiting, or rash (rare).

6 What if there is a moderate or severe reaction?

What should I look for?

- Any unusual condition, such as a high fever or behavior changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- Call a doctor, or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS web site at www.vaers.hhs.gov, or by calling 1-800-822-7967.

VAERS does not provide medical advice.

7 How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Visit CDC’s typhoid website at www.cdc.gov/ncidod/dbmd/diseaseinfo/typhoidfever_g.htm