

Typhoid Vaccines

Vaccine	Dose/Route	Age	Booster Doses
oral live attenuated (Ty21a) Vivotif (Cruce/US)	1 dose orally @ 0, 2, 4, and 6 days (1 capsule every other day over one week for a total of 4 capsules) Should be administered at least <u>2 weeks</u> prior to expected exposure to <i>S typhi</i>.	Persons aged 6 years and older	4-capsule regimen every 5 years (only for continued or repeated exposure)
Vi capsular polysaccharide Typhim Vi (Sanofi Pasteur)	0.5 mL IM - Should be administered at least <u>1 week</u> prior to expected exposure to <i>S typhi</i>.	Persons aged 2 years and older	1 dose every 2 years (only for continued or repeated exposure)

Typhoid Vaccine Recommendations and Information:

- Routine typhoid immunization is not recommended in the United States.
- Typhoid immunization is recommended for:
 - Travelers to endemic areas where a recognized risk of exposure to typhoid exists (especially Africa, Asia, and South and Central America) and who will have prolonged exposure to potentially contaminated food and water. However, short-term travelers may be at risk as well.
 - People with intimate exposure (e.g., household contact) to a known *Salmonella* serotype typhoid carrier.
 - Laboratory personnel who work frequently with *Salmonella typhi* or specimens containing this organism or who work in laboratory environments where these cultures or specimens are routinely handled.
- For specific locations where there is a risk of contracting *Salmonella typhi*, consult the CDC [Travel Health Notices](#) page.
- No data have been reported on the use of either parenteral or live oral typhoid vaccine in pregnant women. In general, live vaccines like Vivotif are contraindicated in pregnancy. Consider using Typhim Vi in pregnant women only if clearly needed for those at risk of exposure to *S. typhi*.
- Travelers should be cautioned that typhoid vaccination is not a substitute for careful selection of food and beverages. Typhoid vaccines are not 100% effective, and vaccine-induced protection can be overwhelmed by large inocula of *Salmonella* serotype Typhi.



Contraindications

- **Vivotif:** history of hypersensitivity to a component of the vaccine or capsule; acute febrile illness; acute GI illness (i.e. persistent diarrhea, vomiting); immunocompromised persons (i.e. HIV); persons receiving antimicrobial agents (i.e. sulfonamides) until 24 hours after the antimicrobial dose I think these should be bulleted so they stand out more; pregnancy
- **Typhim Vi:** previous severe systemic or allergic reaction to a prior dose of inactivated typhoid vaccine

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- Vaccine Storage and Handling:

- **Vivotif:** 35-46°F (shelf life - **expires within 15 months**)
- **Typhim Vi:** 35-46°F (shelf life - **expires within 30 months**)

Booster Doses:

- If continued or repeated exposure to *Salmonella* serotype Typhi is expected:
 - No optimal revaccination schedule for the Typhim Vi has been established. However, the manufacturer recommends a repeat dose every 2 years after the primary dose if continued or renewed exposure is expected.
 - The manufacturer of Vivotif recommends revaccination with the entire 4-dose series every 5 years if continued or renewed exposure is expected.

Vaccine Administration:

Vivotif:

- Primary vaccination with Vivotif consists of one capsule taken on alternate days (day 0, 2, 4, and 6), for a total of four capsules.
- Each capsule should be taken with cool water (no warmer than 98.6), approximately 1 hour before a meal.

Typhum Vi:

- Primary vaccination with Typhim Vi is 0.5 ml administered intramuscularly.

Precautions

- **Vivotif:** Antimicrobial agents might interfere with live-attenuated vaccine activity. To ensure vaccine effectiveness, Vivotif should not be given until at least 3 days after the last dose of an antimicrobial agent. Antimicrobial agents should not be started within 3 days of the last dose of Vivotif.
- **Typhim Vi:** Sycoph has been reported following vaccination. Procedures should be in place to prevent falling injuries and manage syncopal reactions.

Adverse Reactions

- **Vivotif:** nausea, abdominal pain, headache, fever, diarrhea, vomiting, skin rash or urticarial on trunk or extremities
- **Typhum Vi:**
local - erythema, induration, pain, tenderness at injection site
systemic: fever, malaise, myalgia
 nausea, headache

