

# Typhoid Vaccines: Fact Sheet

## Overview of FDA-approved typhoid vaccines<sup>1,2</sup>

	TYPHIM Vi® (Typhoid Vi Polysaccharide Vaccine)	VIVOTIF® (Typhoid Vaccine Live Oral Ty21a)
INDICATION	<p>Typhim Vi vaccine is indicated for active immunization for the prevention of typhoid fever caused by <i>S. typhi</i> and is approved for use in persons two years of age or older.</p> <p>Please see TYPHIM Vi Prescribing Information for full indication and usage.</p>	<p>VIVOTIF is indicated for immunization of adults and children greater than 6 years of age against disease caused by <i>Salmonella typhi</i>.</p> <p>Please see full VIVOTIF Indication below.</p>
VACCINE TYPE	Inactivated, purified subunit	Live, attenuated
QUALIFYING AGE FOR VACCINATION	2 years and above	Greater than 6 years of age
DOSAGE AND ADMINISTRATION	1 dose, administered intramuscularly	1 capsule to be taken orally on days 1, 3, 5, 7
IMMUNIZATION SCHEDULE	Should be given at least 2 weeks prior to the expected exposure to <i>S. typhi</i>	Should be completed at least 1 week prior to potential exposure to <i>S. typhi</i>
REIMMUNIZATION	Every 2 years	Every 5 years

An optimal reimmunization schedule has not been established for TYPHIM Vi or VIVOTIF.

There are no head-to-head studies comparing Typhim Vi with VIVOTIF.

This comparison is based on the full Prescribing Information of the respective products. For more information on TYPHIM Vi, please see the full Prescribing Information.

### Indication and Usage

VIVOTIF is indicated for immunization of adults and children greater than 6 years of age against disease caused by *Salmonella typhi*.

Routine typhoid vaccination is not recommended in the United States of America. Selective immunization against typhoid fever is recommended for the following groups: 1) travelers to areas in which there is a recognized risk of exposure to *S. typhi*; 2) persons with intimate exposure (e.g., household contact) to an *S. typhi* carrier; and 3) microbiology laboratorians who work frequently with *S. typhi*. There is no evidence to support the use of typhoid vaccine to control common source outbreaks, disease following natural disasters, or in persons attending rural summer camps.

Not all recipients of VIVOTIF will be fully protected against typhoid fever. Vaccinated individuals should continue to take personal precautions against exposure to typhoid organisms. The vaccine will not afford protection against species of *Salmonella* other than *Salmonella typhi* or other bacteria that cause enteric disease. The vaccine is not suitable for treatment of acute infections with *S. typhi*.

### Important Safety Information

**Contraindications:** VIVOTIF is contraindicated in patients with a hypersensitivity to any component of the vaccine or the enteric-coated capsule. The vaccine should not be administered to persons during an acute febrile illness. Safety of the vaccine has not been demonstrated in persons deficient in their ability to mount a humoral or cell-mediated immune response, due to either a congenital or acquired immunodeficient state including treatment with immunosuppressive or antimetabolic drugs. The vaccine should not be administered to these persons regardless of benefits.

**For more information about VIVOTIF, please see additional Important Safety Information on reverse side and accompanying full Prescribing Information.**

# Dosing Schedule

1 VIVOTIF capsule taken on days 1, 3, 5, and 7 may provide up to 5 years of protection against typhoid fever<sup>2</sup>

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
 <b>1st Capsule</b>	<b>Skip a day</b>	 <b>2nd Capsule</b>	<b>Skip a day</b>	 <b>3rd Capsule</b>	<b>Skip a day</b>	 <b>4th Capsule</b>

## Important Safety Information (continued)

### Warnings and Precautions

**Acute Gastrointestinal Illness:** VIVOTIF is not to be taken during an acute gastrointestinal illness.

**Concomitant Administration With Sulfonamides and Antibiotics:** The vaccine should not be administered to individuals receiving sulfonamides and antibiotics since these agents may be active against the vaccine strain and prevent a sufficient degree of multiplication to occur in order to induce a protective immune response.

**Administration in Patients With Diarrhea or Vomiting:** Vaccination should be postponed if persistent diarrhea or vomiting is occurring.

**Need to Complete the Entire Vaccination Series of 4 Doses on the Correct Schedule:** Unless a complete immunization schedule is followed, an optimum immune response may not be achieved. Not all recipients of VIVOTIF will be fully protected against typhoid fever.

**Not All Recipients Will Be Protected — Need for Safety Vigilance:** Not all recipients of VIVOTIF will be fully protected against typhoid fever. Vaccinated individuals should continue to take personal precautions against exposure to typhoid organisms (i.e., travelers should take all necessary precautions to avoid contact or ingestion of potentially contaminated food or water).

**Concomitant Administration With Anti-malarial Drugs:** Several anti-malaria drugs, such as mefloquine, chloroquine, and proguanil (approved in the United States as 1 of the 2 active ingredients in Malarone and its generic equivalents) possess anti-bacterial activity, which may interfere with the immunogenicity of VIVOTIF. A study in healthy adults showed that mefloquine and chloroquine can be administered together with VIVOTIF. Proguanil should be administered only if 10 days or more have elapsed since the final dose of VIVOTIF was ingested.

**Pregnancy/Nursing:** It is not known whether VIVOTIF can cause fetal harm when administered to pregnant women or can affect reproduction capacity. VIVOTIF should be given to a pregnant woman only if clearly needed. There are no data to warrant the use of this product in nursing mothers. It is not known if VIVOTIF is excreted in human milk.

**Adverse Reactions:** In 2 trials conducting active surveillance for adverse reactions in persons receiving 3 doses (VIVOTIF recipients in the safety dataset, n=483), the most common adverse reactions were abdominal pain (6.4%), nausea (5.8%), headache (4.8%), fever (3.3%), diarrhea (2.9%), vomiting (1.5%), and skin rash (1.0%). Only the incidence of nausea occurred at a statistically higher frequency in the vaccinated group as compared to the placebo group. Reports to the manufacturer from early post-marketing clinical experience (1991-1995), during which time over 60 million doses (capsules) were administered, included all the adverse reactions identified above, as well as urticaria in the trunk and/or extremities (n=13), and 1 isolated, non-fatal case of anaphylactic shock considered to be an allergic reaction to the vaccine.

**Please see accompanying full Prescribing Information.**

### References:

1. Typhim Vi [package insert]. Swiftwater, PA: Sanofi Pasteur Inc; 2020.
2. VIVOTIF (Typhoid Vaccine Live Oral Ty21a) [package insert]. Redwood City, CA.

© 2024 Bavarian Nordic Inc. All rights reserved. Vivotif<sup>®</sup> is a registered trademark of Bavarian Nordic A/S.

US-VIV-2300021 | November 2024

To report SUSPECTED ADVERSE REACTIONS, contact Bavarian Nordic at 1-844-4BAVARIAN or the US Department of Health and Human Services by either visiting [www.vaers.hhs.gov/reportevent.html](http://www.vaers.hhs.gov/reportevent.html) or calling 1-800-822-7967.



**RECOMMEND  
TEXT REMINDERS**

To enroll in the TAKE 4 text reminder program, travelers can text "TRAVEL" to 1-833-207-3377 on the day of their first dose. They will receive a text every other day reminding them to take their next dose and to refrigerate the remaining capsules.\*

\*The information requested will be used by Bavarian Nordic to send text message reminders. Message and data rates may apply. This is a recurring program that includes a number of messages over the course of 7 days. At any time during the program, patients may text "HELP" for assistance or "STOP" to discontinue receiving messages.