

# ACIP Typhoid Fever Vaccine Update

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## Objective

- Update information on typhoid immunization



## Typhoid Immunization

**Recommendations of the Advisory  
Committee on Immunization Practices (ACIP)**

## Typhoid Fever



- **Caused by *Salmonella enterica* serotype Typhi**
  - Humans are only reservoir
- **Usually acquired from contaminated food or water**
- **Incubation period 6–30 days**
- **Insidious onset with increasing fever, malaise, headache, anorexia**
- **Life-threatening complications include septic shock, intestinal hemorrhage and perforation**
- **Treated with fluoroquinolone, beta-lactam, azithromycin, chloramphenicol, or trimethoprim-sulfamethoxazole**
  - Antibiotic resistance common and increasing

## Epidemiology

- **Typhoid fever uncommon in United States**
  - ~400 U.S. cases/year
  - >20 million cases/year worldwide
- **~90% of U.S. cases associated with foreign travel**
  - 75% with travel to South Asia



## Typhoid Vaccines Included in 1994 ACIP Statement

Vaccine	Vaccine type	Mode of administration	No. of doses
Ty21a vaccine	Live, attenuated	Oral	4
Vi capsular polysaccharide vaccine	Subunit	Parenteral	1
Heat-phenol-inactivated vaccine	Inactivated whole-cell	Parenteral	2

## Typhoid Vaccines Available in U.S. in 2014

Vaccine	Vaccine type	Mode of administration	No. of doses	Current status
Ty21a vaccine, Vivotif®	Live, attenuated	Oral	4	Currently marketed in U.S.
Vi capsular polysaccharide vaccine, Typhim Vi®	Subunit	Parenteral	1	Currently marketed in U.S.
Heat-phenol-inactivated vaccine	Inactivated whole-cell	Parenteral	2	Discontinued in 2000

**Available vaccines have estimated efficacy of 45–80%**

## Current ACIP Typhoid Vaccine Recommendations Published 1994

- “Either oral Ty21a or parenteral ViCPS is preferable” to parenteral inactivated vaccine
- Indicated for
  - Travelers to endemic areas ([www.cdc.gov/travel](http://www.cdc.gov/travel))
  - Household contacts of carriers
  - Laboratory workers who work frequently with *Salmonella* serotype Typhi cultures or specimens

## **Planned Updates**

- **No substantial change to vaccine recommendations**
- **Document will include updated information on**
  - Epidemiology
  - Vaccine safety studies
  - Vaccine availability



# Thank you

**For more information please contact Centers for Disease Control and Prevention**

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