



Typhoid Conjugate Vaccine (TCV)

Published On: 04-11-2025

Context

Bangladesh has become the 8th country in the world to introduce the Typhoid Conjugate Vaccine (TCV) into its national immunization programme (2025).

Supported by Gavi, the Vaccine Alliance, WHO, and UNICEF.

Aims to prevent typhoid among millions of children — especially in densely populated, high-risk regions.

About Typhoid Conjugate Vaccine (TCV)

Type: Single-dose, injectable vaccine.

Target: Protects against *Salmonella enterica* serotype Typhi — the bacterium causing typhoid fever.

Mechanism: Triggers immune response by producing antibodies against *S. Typhi*.

Example: Typbar TCV (manufactured by Bharat Biotech, India).

Administration: Can be given to children as young as 6 months of age — offers long-term protection.

Advantages over Earlier Typhoid Vaccines

Feature	Traditional Typhoid Vaccine	Typhoid Conjugate Vaccine (TCV)
Type	Polysaccharide (Vi)	Conjugate (Vi-polysaccharide + protein)
Age group	≥2 years	≥6 months
Doses	Multiple boosters	Single dose
Duration of protection	2–3 years	Up to 10 years
Immune response	Weak in infants	Strong & long-lasting

About Typhoid Fever

Causative Agent: *Salmonella Typhi* (bacterium).

Transmission: Feco-oral route — via contaminated food or water.

Symptoms:

Prolonged high fever

Headache and fatigue

Kamaraj IAS Academy

Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Phone: 044 4353 9988 / 98403 94477 / Whatsapp : 09710729833

Abdominal pain

Constipation or diarrhoea

Loss of appetite and nausea

Public Health Significance

Global burden: ~9 million cases annually; over 110,000 deaths (WHO).

Antimicrobial resistance (AMR): Growing resistance of *S. Typhi* to multiple antibiotics has made vaccination a key preventive measure.

India's Role: India was among the first countries to develop and license TCV (Typbar), highlighting its contribution to global vaccine innovation.