

What is the Widal Test?

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About Widal Test:

- It is a test done for **diagnosing typhoid** fever.
 - Typhoid fever, also **known as enteric fever**, is a **bacterial infection** caused by the bacterium **Salmonella Typhi**, and it is commonly **spread through contaminated food or water**.
 - A person with typhoid fever will experience symptoms like fatigue, high fever, headache, diarrhoea or constipation, abdominal pain, weight loss, and red spots.
 - These **symptoms mimic those of malaria, dengue, influenza**, and typhus, to name a few, **making it difficult to diagnose** without proper testing.
- As with other infections, our **immune system produces antibodies** in the blood against the bacteria, causing enteric fever.
- The widal test is a **serological test** that **detects antibodies** against the bacteria **in a patient's blood sample**, indicating whether or not they have been infected with the bacteria.

- It is used to **help diagnose a current or recent infection** or to **determine if an individual has had a previous typhoid infection**.
 - It's a **point-of-care test** and doesn't need special skills or infrastructure.
 - Developed in the late 1800s by a French physician, it is **no longer used in many countries** because of its flaws. The **World Health Organization (WHO)** has said that due to the various factors that can influence the results of a Widal test, it is **best not to rely too much on this test**.
 - **Limitations:**
 - A **single positive Widal test report doesn't necessarily mean a typhoid infection** is present, and a **negative report doesn't confirm the disease's absence**.
 - **To diagnose an active infection**, clinicians **must test at least two serum samples** taken at **least 7-14 days apart**, so that they may detect a change in the concentrations of the antibodies. But getting two samples is **rarely feasible and time-consuming**.
 - **In areas with a high and continuous typhoid burden, certain levels of antibodies** against the bacteria **may already be present** in the blood. Without knowing the baseline cut-off, it isn't possible to correctly interpret the test.
 - The **reagents used** in the Widal test to reveal the presence of various antibodies **can cross-react with antibodies produced against infections by other bacteria, viruses** or parasites, or even in typhoid-vaccinated individuals, **leading to false positives**.
 - **Prior antibiotic therapy** can **also affect antibody levels** and yield a false negative.
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Q1: What is the World Health Organization (WHO)?

It is a specialized agency of the United Nations which was established in 1948, that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable – so everyone, everywhere can attain the highest level of health.

Source: [How the Widal test is clouding India's sense of its typhoid problem | Explained](#)

Source: <https://vajiramandravi.com/current-affairs/widal-test/>

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