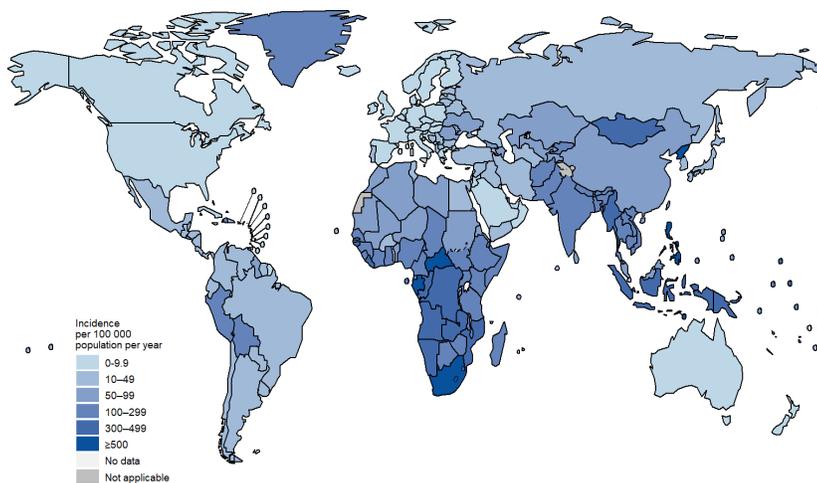


Key TB Facts

The following facts are from the World Health Organization:

- A total of 1.5 million people died from TB in 2020 (including 214 000 people with HIV). Worldwide, TB is the 13th leading cause of death and the second leading infectious killer after COVID-19 (above HIV/AIDS).
- In 2020, an estimated 10 million people fell ill with tuberculosis (TB) worldwide. 5.6 million men, 3.3 million women and 1.1 million children. TB is present in all countries and age groups. But TB is curable and preventable.
- In 2020, 1.1 million children fell ill with TB globally. Child and adolescent TB is often overlooked by health providers and can be difficult to diagnose and treat.
- In 2020, the 30 high TB burden countries accounted for 86% of new TB cases. Eight countries account for two thirds of the total, with India leading the count, followed by China, Indonesia, the Philippines, Pakistan, Nigeria, Bangladesh and South Africa.
- Over 95% of all TB deaths are in developing countries.
- People living with HIV are 18 (Uncertainty interval: 15-21) times more likely to develop active TB disease than people without HIV.
- HIV and TB form a lethal combination, each speeding the other's progress. In 2020, about 215 000 people died of HIV-associated TB. The percentage of notified TB patients who had a documented HIV test result in 2020 was only 73%, up from 70% in 2019. .
- Multi-drug resistant TB (MDR-TB) is present in virtually all countries surveyed.

Estimated TB Prevalence 2022 (WHO)



Tuberculosis is Curable and Preventable

TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.

People infected with TB bacteria have a lifetime risk of falling ill with TB of 10%. However, persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a much higher risk of falling ill.

Types of Tuberculosis

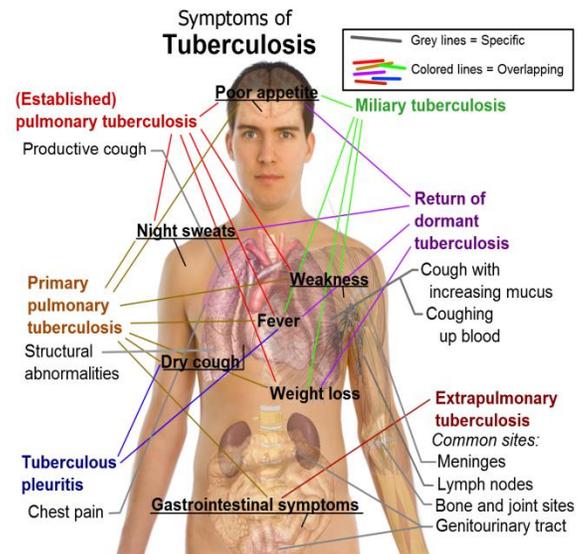
Although your body may harbor the bacteria that cause tuberculosis, your immune system usually can prevent you from becoming sick. For this reason, doctors make a distinction between:

- Latent TB. In this condition, you have a TB infection, but the bacteria remain in your body in an inactive state and cause no symptoms. Latent TB, also called inactive TB or TB infection, isn't contagious. It can turn into active TB, so treatment is important for the person with latent TB and to help control the spread of TB in general. About one-third of the world's population has latent TB.
- Active TB. This condition makes you sick and can spread to others. It can occur in the first few weeks after infection with the TB bacteria, or it might occur years later.

Signs and symptoms of active TB include:

- Coughing that lasts three or more weeks
- Cough with blood
- Chest pain, or pain with breathing or coughing
- Unintentional weight loss
- Fatigue
- Fever
- Night sweats
- Chills
- Loss of appetite

Tuberculosis can also affect other parts of your body, including your kidneys, spine or brain. When TB occurs outside your lungs, signs and symptoms vary according to the organs involved. For example, tuberculosis of the spine may give you back pain, and tuberculosis in your kidneys might cause blood in your urine.



When to seek medical care

See your doctor if you have a fever, unexplained weight loss, drenching night sweats or a persistent cough. These are often signs of TB, but they can also result from other medical problems. Your doctor can perform tests to help determine the cause.

The Centers for Disease Control and Prevention recommends that people who have an increased risk of tuberculosis be screened for latent TB infection. This recommendation includes:

- People with HIV/AIDS
- IV drug users
- Those in contact with infected individuals
- Health care workers who treat people with a high risk of TB
- People living in high-risk areas

Tests for TB

1. Skin Test

The most commonly used diagnostic tool for tuberculosis is a simple skin test, though blood tests are becoming more commonplace. A small amount of a substance called PPD tuberculin is injected just below the skin of your inside forearm. You should feel only a slight needle prick.

Within 48 to 72 hours, a health care professional will check your arm for swelling at the injection site. A hard, raised red bump means you're likely to have TB infection. The size of the bump determines whether the test results are significant.



Positive Result

2. Blood Tests

Blood tests may be used to confirm or rule out latent or active tuberculosis. A blood test may be useful if you're at high risk of TB infection, but have a negative response to the skin test, or if you've recently received the BCG vaccine.

3. Imaging Tests

If you've had a positive skin test, your doctor is likely to order a chest X-ray or a CT scan. This may show white spots in your lungs where your immune system has walled off TB bacteria, or it may reveal changes in your lungs caused by active tuberculosis. CT scans provide more-detailed images than do X-rays.

4. Sputum Tests

If your chest X-ray shows signs of tuberculosis, your doctor may take samples of your sputum — the mucus that comes up when you cough. The samples are tested for TB bacteria.

Sputum samples can also be used to test for drug-resistant strains of TB. This helps your doctor choose the medications that are most likely to work. These tests can take four to eight weeks to be completed.

Treatment

Medications are the cornerstone of tuberculosis treatment. But treating TB takes much longer than treating other types of bacterial infections.

With tuberculosis, you must take antibiotics for at least six to nine months. The exact drugs and length of treatment depend on your age, overall health, possible drug resistance, the form of TB (latent or active) and the infection's location in the body.

Recent research suggests that a shorter term of treatment — four months instead of nine — with combined medication may be effective in keeping latent TB from becoming active TB. With the shorter course of treatment, people are more likely to take all their medication and the risk of side effects is lessened.

Most common TB drugs

If you have latent tuberculosis, you may need to take just one type of TB drug. Active tuberculosis, particularly if it's a drug-resistant strain, will require several drugs at once. The most common medications used to treat tuberculosis include:

- Isoniazid
- Rifampin (Rifadin, Rimactane)
- Ethambutol (Myambutol)
- Pyrazinamide

Drug-resistant TB

Another reason tuberculosis remains a major killer is the increase in drug-resistant strains of the bacterium. Since the first antibiotics were used to fight tuberculosis 60 years ago, some TB germs have developed the ability to survive, and that ability gets passed on to their descendants.

Drug-resistant strains of tuberculosis emerge when an antibiotic fails to kill all of the bacteria it targets. The surviving bacteria become resistant to that particular drug and frequently other antibiotics as well. Some TB bacteria have developed resistance to the most commonly used treatments, such as isoniazid and rifampin.

If you have any questions about this topic, please reach out to CompassionLink at info@compassionlink.org. We will be happy to answer your questions.

Sources:

<https://www.who.int/news-room/fact-sheets/detail/tuberculosis>

<https://www.cdc.gov/tb/default.htm>

<http://www.mayoclinic.org/diseases-conditions/tuberculosis/basics/symptoms>