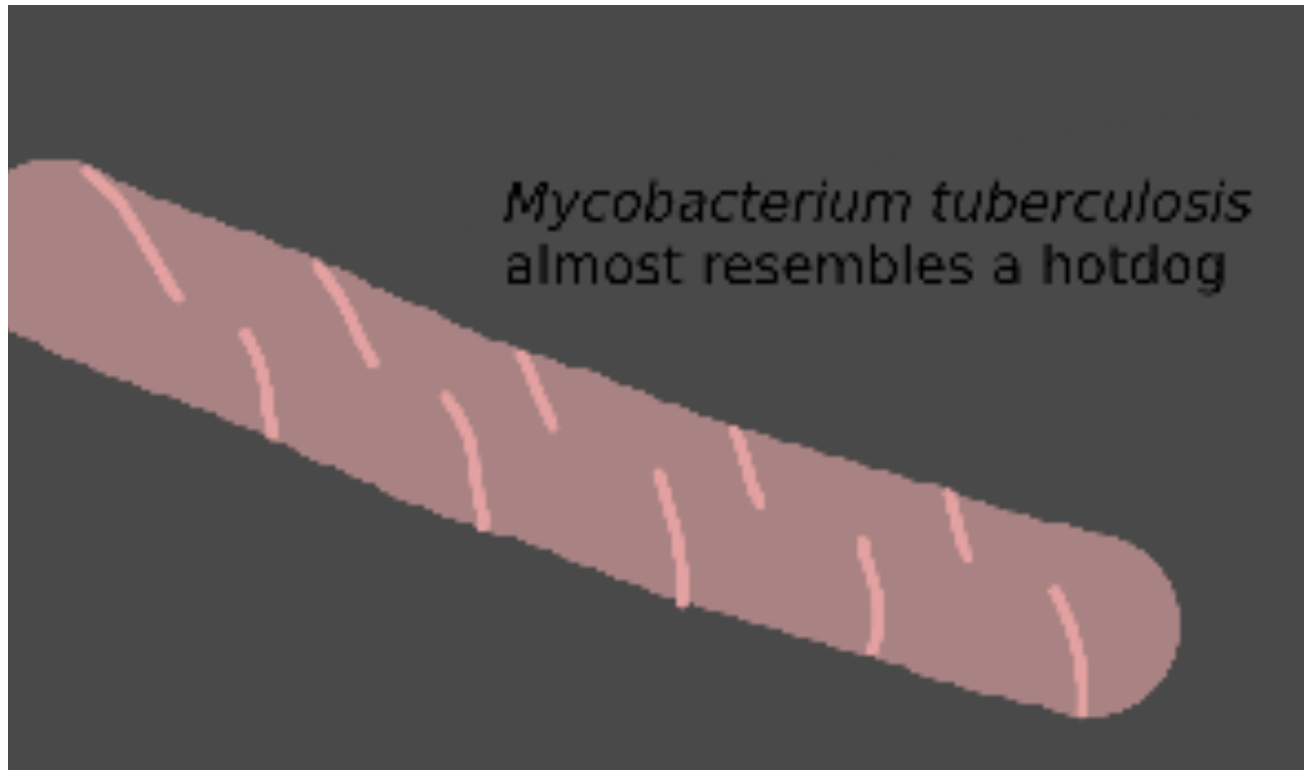


Tuberculosis

by Isis Alexi M. Alcantara

What is **TUBERCULOSIS**?

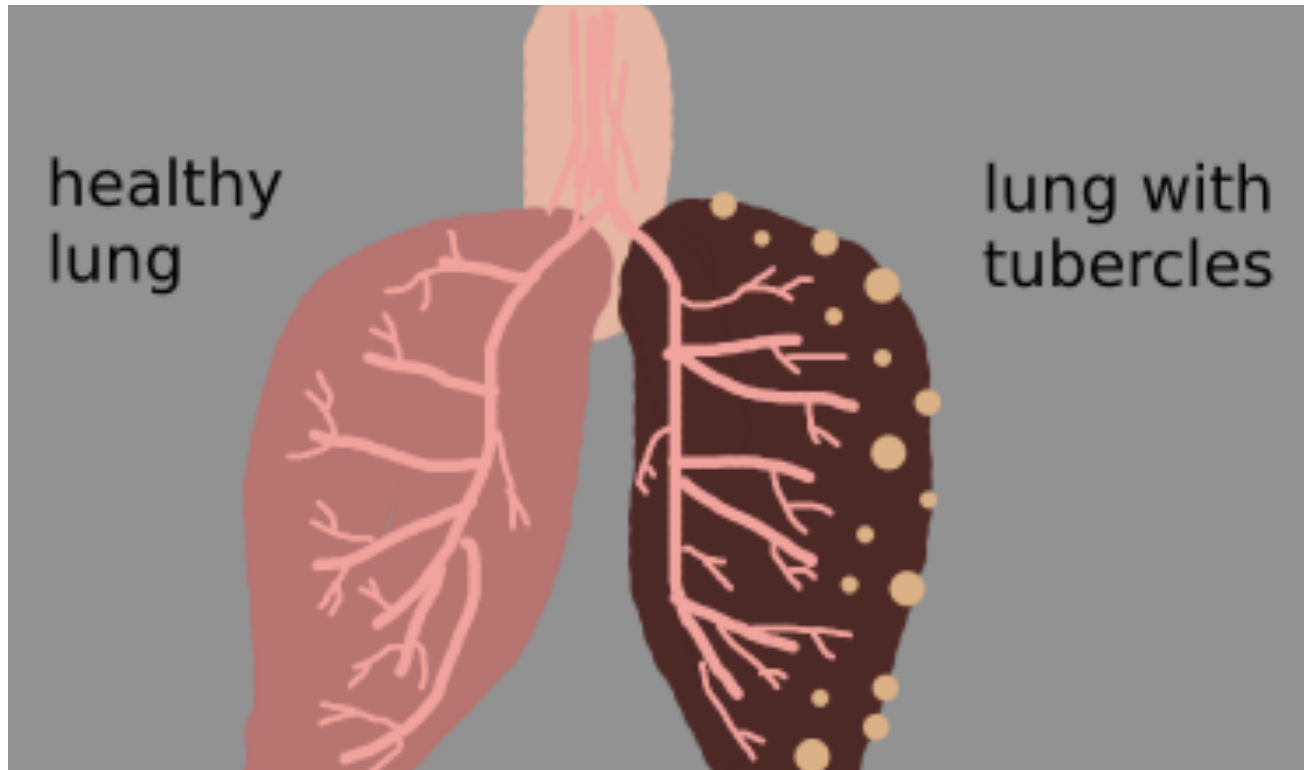


Tuberculosis (often shortened to **TB**) is a respiratory disease caused by the bacteria *Mycobacterium tuberculosis*. It can spread through droplets when somebody with the bacteria coughs, sneezes, or spits phlegm. Most of the time, you need a long exposure to these bacteria before you get infected.

TB is in the top ten causes of death worldwide. According to the World Health Organization (WHO), about 10.4 million had **TB**, while about 2 million people die from it each year. At least one-third of the human population is infected by **TB**.

In 2016, about 600,000 people with **TB** developed *multidrug resistant tuberculosis* (**MDR-TB**). A more serious variant would be the *extensively drug resistant tuberculosis* (**XDR-TB**) which doesn't respond to second-line drugs.

What body parts get affected?



The most common body part that gets affected by **TB** are the lungs. When the bacteria are in the lungs, they trigger a pro-inflammatory response that leads to lump-like lesions called *tubercles* forming.

Bones, joints, urinary tract, and the central nervous system can also be affected, but these cases are known as **extra-pulmonary TB**.

How does someone get **TB**?

As stated previously, a person can catch **TB** through the droplets of bodily fluid of someone with **TB**. If someone with **TB** coughs or sneezes, the droplets of saliva or phlegm can be inhaled causing the inhalee to get infected.



How can you prevent catching **TB**?

Observe good hygiene: wash your hands properly with soap and water

Boost your immunity by eating a balanced diet and taking vitamins

Do not stay near an infected person; if you must, wear protection like masks



Detection of TB



According to the Centers for Disease Control and Prevention (CDC), there are two kinds of tests used to determine if there is TB bacteria in the body.

The first test is the TB skin test (TST). If the test is positive, it only tells that a person has been infected with TB bacteria. It cannot tell if the person with the bacteria has latent TB infection (LTBI) or if it has progressed to the TB disease itself.

The second test is the TB blood test. There are also other ways to see if a person is infected, such as a chest x-ray, which is used to check if the person has the TB disease.

Treatment of TB

According to the American Lung Association (www.lung.org), you will most likely be treated with combinations of different antibacterial medications for about 6 to 12 months if you have an active **TB** disease.

The most common treatment for active **TB** is isoniazid INH in combination with three other drugs: rifampin, pyrazinamide and ethambutol.

The person taking these might start to feel better after a few weeks, but since **TB** takes longer to treat than other bacterial infections, the person must keep taking their prescribed medicine for as long as the doctor says, otherwise they could risk getting sick again.

Sources:

For all the basic information:

Ferriols-Pavico, J., Morales-Ramos, A. C., Bayquen, A. V., Silverio, A. A., & Ramos, J. D. A. (2018). *Exploring Life Through Science Series*

Image of a doctor testing a woman:

The CDC website (www.cdc.gov)

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