

# Tuberculosis (TB)

Last Reviewed: August 2018

- ["Tuberculosis"](#) is also available in Portable Document Format (PDF, 19KB, 2pg.)
- [Versión en español](#)
- [Further information on tuberculosis from Wadsworth Mycobacteriology Laboratory website](#)
- [Data and Statistics](#)
- [Informational Brochures](#)
- [Additional Resources for providers](#)

## What is tuberculosis?

Tuberculosis is a bacterial disease usually affecting the lungs (pulmonary TB). Other parts of the body can also be affected, for example lymph nodes, kidneys, bones, joints, etc. (extrapulmonary TB).

## Who gets tuberculosis?

Tuberculosis can affect anyone of any age. Once a person has TB infection but does not appear sick, he or she has a higher chance of developing TB disease if the person has HIV infection, is younger than 5 years old, was infected with TB germs within the last 2 years, has other health problems like diabetes that make it hard for the body to fight germs, abuses alcohol or drugs, or was not treated correctly for TB disease in the past.

## How is tuberculosis spread?

Tuberculosis is spread through the air when a person with untreated TB disease of the lungs coughs, sneezes, laughs, or sings. A person must be in close contact with someone with untreated TB disease of the lungs for a long period of time and needs to breathe in TB germs for infection to occur. TB is NOT spread by sharing silverware or cups, or sharing saliva when kissing someone.

## What is the difference between latent tuberculosis infection and tuberculosis disease?

Latent tuberculosis infection (LTBI) means the person has the TB germs in the body (usually lungs), but he/she is not sick and has no symptoms because the germs are sleeping in the body. In latent TB, the person has a positive TB skin test or TB blood test, a normal chest x-ray, no symptoms of tuberculosis, and no TB germs found in the sputum (phlegm). Tuberculosis disease

is when the person has symptoms, a positive TB skin test or TB blood test, a chest x-ray showing TB disease (if disease is in the lungs), and have TB germs in the sputum (phlegm). In order to spread the TB germs, a person must have TB disease of the lungs or throat. Having latent TB infection is not enough to spread the germ. However, people with latent TB infection may develop TB disease in the future. To prevent developing TB disease, people with latent TB infection should take medicine.

## **What are the symptoms of tuberculosis?**

The symptoms of TB include a low-grade fever, night sweats, weakness or tiredness, and weight loss. If TB is in the lungs, the person may also cough, have chest pain, shortness of breath or might be coughing up blood. Other symptoms depend on the part of the body affected by the TB germs.

## **How soon do symptoms appear?**

Most people infected with the germ that causes TB never develop TB disease. If TB disease does develop, it can occur two to three months after infection or years later. The risk of TB disease lessens as time passes. Treatment can prevent the development of disease.

## **When and for how long is a person able to spread tuberculosis?**

A person with TB disease may be able to spread the TB germs until he/she has been on medicine for several weeks. However, a person with latent TB infection, but not disease, cannot spread the infection to others, since there are no TB germs in the sputum (phlegm).

## **What is the treatment for tuberculosis?**

People with latent TB infection should be seen by a health care provider for treatment, which usually includes taking medication for three to nine months. People with TB disease must take several medications for six months or more. Initial medications include at least four anti-TB drugs, and medications may be altered based on laboratory test results. The exact medication plan must be determined by a health care provider. Directly observed therapy (DOT) programs are recommended for all persons with TB disease to help them complete their treatment.

## **What is Directly Observed Therapy (DOT)?**

DOT is when a person with TB disease meets with a health care worker every day or several times per week. The person with TB disease and the health care worker meet at a place that both agree on. Medicines are taken at this place while the health care worker watches the

person with TB disease. DOT helps in several ways. The health care worker can help the person with TB disease remember to take all his/her medicines and complete treatment. This means the person with TB disease will get well as soon as possible. The health care worker will make sure that the medicines are working as they should. This health care worker will also watch for side effects and answer questions that the person with disease may have about TB.

## **What can be the effect of not being treated for tuberculosis?**

In addition to spreading the disease to others, an untreated person may become severely ill or die.

## **What can be done to prevent the spread of tuberculosis?**

The most important way to stop the spread of tuberculosis is for people with TB disease to cover the mouth and nose when coughing, and to take all the TB medicine exactly as instructed by the health care provider. It is also important that people with latent TB infection be treated so they do not get TB disease later and spread it to others.

## **What is multidrug-resistant tuberculosis (MDR-TB)?**

This refers to the ability of some strains of TB to grow and multiply even in the presence of certain drugs which would normally kill them.

## **What is extensively drug-resistant tuberculosis (XDR-TB)?**

Extensively drug-resistant TB (XDR-TB) is a subset of MDR-TB in which the strains of TB bacteria are resistant to nearly all medicines used to treat TB disease. These strains are very difficult to treat.

## **Who gets MDR-TB?**

People with drug sensitive TB disease may develop drug resistant tuberculosis if they fail to take their TB medications as instructed, as well as people with TB disease who have not been given a treatment plan that works against the TB germs. People with MDR-TB can transmit the drug resistant germs to other people.

## **What is the treatment for multidrug-resistant tuberculosis?**

People with disease due to drug resistant germs, should have a health care provider who is an expert in treating drug resistant TB. People with drug resistant disease must be treated with

special medications which are not as good as the usual medications for TB. Treatment takes much longer than regular TB and drugs have more side effects.

## **What can be done to prevent the spread of MDR-TB?**

Ensuring people with MDR-TB take all their medication and teaching patients to cover their mouth and nose when coughing and sneezing can reduce the risk of spread of MDR-TB. In addition, directly observed therapy should be used to ensure people with drug resistant TB complete their treatment.

Revised: August 2018

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### Additional Resources for Providers

The USPSTF Recommendation for TB screening (September 2016):

<https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/latent-tuberculosis-infection-screening>

CDC resources for Latent TB Infection: <https://www.cdc.gov/tb/publications/lbti/lbtiresources.htm>

ATS/IDSA/CDC Clinical Practice Guidelines: Diagnosis of tuberculosis in adults and children (January 2017): <https://academic.oup.com/cid/article/64/2/111/2811357>

ATS/CDC/IDSA Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis (October 2016): <https://academic.oup.com/cid/article/63/7/e147/2196792>

New York State Department of Health Mycobacteriology website:

<https://www.wadsworth.org/programs/id/mycobact>

APHL/NTCA guidance on use of TB rapid tests in decisions regarding airborne isolation:

[http://www.tbcontrollers.org/docs/resources/NTCA\\_APHL\\_GeneXpert\\_Consensus\\_Statement\\_Final.pdf](http://www.tbcontrollers.org/docs/resources/NTCA_APHL_GeneXpert_Consensus_Statement_Final.pdf)

CDC Tuberculosis Guidelines: <https://www.cdc.gov/tb/publications/guidelines/default.htm>

CDC Tuberculosis website: <https://www.cdc.gov/tb/>