

## The Difference Between Latent TB Infection and Active TB Disease

### What Is TB?

Tuberculosis (TB) is a disease caused by a germ called *Mycobacterium tuberculosis* that is spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. When a person with infectious TB coughs or sneezes, droplet nuclei containing *M. tuberculosis* are expelled into the air. If another person inhales air containing these droplet nuclei, he or she may become infected. However, not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: latent TB infection and active TB disease – both of which are treatable and curable.

### What Is Latent TB Infection?

Persons with latent TB infection do not feel sick and do not have any symptoms, but usually have a positive reaction to the tuberculin skin test. They are infected with *M. tuberculosis*, but do not have active TB disease. **Those with latent TB infection are not infectious and cannot spread TB infection to others.**

However, persons with latent TB infection may develop active TB disease at some time in the future. About 10% of infected persons will develop active TB disease at some time in their lives, but the risk is considerably higher in the first two years of infection and for persons whose immune systems are weak, especially those with HIV infection. Persons with latent TB infection should be given treatment to prevent the infection from progressing to disease.

### A person with latent TB infection (LTBI)

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|---|
| - Has inactive TB bacteria in his/her body                      |
| - Does not feel sick and is not infectious                      |
| - Cannot spread TB bacteria to others                           |
| - Needs treatment for latent TB infection to prevent TB disease |

### What Is Active TB Disease?

In some people, TB bacteria overcome the defenses of the immune system and begin to multiply, resulting in the progression from latent TB infection to active TB disease. Some people develop active TB disease soon after infection, while others develop active TB disease later when their immune system becomes weak.

The general symptoms of active TB disease include

- Unexplained weight loss
- Loss of appetite
- Night sweats
- Fever
- Fatigue
- Chills

The symptoms of TB of the lungs include

- Coughing for  $\geq 3$  weeks
- Hemoptysis
- Chest pain

Other symptoms depend on the part of the body that is affected.

**Those with active TB disease are considered infectious and can spread TB bacteria to others.**

If TB disease is suspected, persons should be referred for a complete medical evaluation. If it is determined that a person has active TB disease, therapy is given to cure it. TB disease is a serious condition and can lead to death if not treated.

<b>A person with active TB disease</b>
- Has active TB bacteria in his/her body
- Feels sick and experiences symptoms such as coughing, fever, and weight loss
- May spread TB bacteria to others
- Needs treatment to cure active TB disease

**Additional Information**

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CDC. Targeted tuberculin testing and treatment of latent tuberculosis infection. *MMWR* 2000; 49 (No. RR-6).

[www.cdc.gov/mmwr/preview/mmwrhtml/rr4906a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4906a1.htm)