

## Screening for Latent Tuberculosis

The US Preventive Services Task Force (USPSTF) has published updated recommendations on screening for latent tuberculosis infection in adults.

### What Is Latent Tuberculosis?

Tuberculosis is an infection caused by the bacterium *Mycobacterium tuberculosis*. It most commonly affects the lungs, but other parts of the body can be affected as well. Tuberculosis is classified into 2 types: **latent tuberculosis** and **active tuberculosis**. Active tuberculosis is highly contagious and is spread through the air. Symptoms of active tuberculosis include cough (sometimes with blood), fever, and weight loss. Latent tuberculosis differs from active tuberculosis in that it causes no symptoms and cannot be spread to others. This is because the body's immune system has "walled off" the infection in a pocket inside the lung, keeping the bacteria **dormant** ("asleep").

However, latent tuberculosis can "activate" and become active tuberculosis at any time, especially when the body's immune system is weakened. Treating latent tuberculosis with medications can rid the body of the infection before it becomes active tuberculosis.

### What Tests Are Used to Screen for Latent Tuberculosis?

There are 2 types of screening tests for latent tuberculosis. One is the **Mantoux tuberculin skin test**, in which a substance is injected under the skin and a health care worker looks for development of a rash 2 to 3 days later at the injection site. The other test is the **interferon-gamma release assay**, a blood test. Both tests look for immune reactions that indicate a latent infection, not the tuberculosis bacterium itself.

### What Is the Patient Population Under Consideration for Screening for Latent Tuberculosis?

The USPSTF recommendation applies to adults older than 18 years who are at an increased risk of tuberculosis exposure and infection. This includes people who were born in or have lived in countries with high rates of tuberculosis. In the United States, the majority of active tuberculosis infections are found in people from Mexico, the Philippines, Vietnam, India, China, Haiti, and Guatemala. A full updated list of countries with high rates of tuberculosis can be found at <http://www.stoptb.org/countries/tbdata.asp>. Local and state health departments have information about populations at risk in specific communities. In addition, people who live in settings of close contact with others, such as homeless shelters or correctional facilities, are also considered at increased risk of tuberculosis.

Health care workers as well as people who have weakened immune systems (such as those with HIV or those being treated with immunosuppressants or chemotherapy) are also at higher risk of tuberculosis. However, these groups were not specifically evaluated by the USPSTF.

### What Are the Potential Benefits and Harms of Screening for Latent Tuberculosis?

Screening for latent tuberculosis allows for earlier detection and treatment, which can prevent development of active tuberculosis. Although there are no randomized trials directly studying screening vs no screening, there is convincing evidence that treatment of latent tuberculosis is effective in decreasing rates of active tuberculosis as well as death due to tuberculosis. No studies have directly looked at harms of screening, but harms are likely to be small. Potential harms include false-positive results that lead to possible stigma as well as unnecessary treatment. The main potential harm of treatment is toxic effects on the liver.

### How Strong Is the Recommendation to Screen for Latent Tuberculosis?

Given the current evidence, the USPSTF has concluded with moderate certainty that benefits of screening for latent tuberculosis in people who are at increased risk of infection outweigh the potential harms.

### Bottom Line: Current Recommendation for Screening for Latent Tuberculosis

The USPSTF recommends screening for latent tuberculosis in adults at increased risk of infection (called a grade B recommendation).

Screening for Latent Tuberculosis Infection in Adults	
Population	USPSTF recommendation grade
 <p>ASYMPTOMATIC ADULTS 18 YEARS AND OLDER at increased risk for tuberculosis infection</p>	 <p>Recommended</p>

#### FOR MORE INFORMATION

- Centers for Disease Control and Prevention  
<http://www.cdc.gov/tb/publications/factsheets/general/lftbiandactivetb.htm>
- US Preventive Services Task Force  
<http://www.uspreventiveservicestaskforce.org/Page/Document/draft-recommendation-statement144/latent-tuberculosis-infection-screening>

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