



# CDC Messages and Resources:

## U.S. Preventive Services Task Force Recommendation on Latent Tuberculosis Infection

The U.S. Preventive Services Task Force published a new [recommendation](#) to test for latent TB infection in populations at increased risk. The TB community has a unique opportunity to use the announcement of this recommendation to draw attention to latent TB infection and educate the public, health care providers, at-risk populations, and policy makers on the importance of targeted testing and treatment for latent TB infection.

The information below may be helpful in communication activities to inform and educate partners, stakeholders, and media about the importance of expanded latent TB infection testing and treatment in eliminating TB in the United States. Included are:

- [Key CDC Messages](#)
- [Supporting Messages](#)
- [Latent TB Infection Facts](#)
- [CDC Resources](#)
- [Additional Resources](#)
- [Helpful Links](#)

Additional information and materials are available online: <http://www.cdc.gov/tb>.

### Key CDC Messages:

- Eliminating tuberculosis (TB) in the United States requires expanding testing and treatment of latent TB infection.
- The Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF) recommend testing populations that are at increased risk for TB infection.
- Clinicians, health care agencies, and community organizations, especially those serving at-risk populations, have a critical role in TB elimination.

### Supporting Messages:

#### **Eliminating tuberculosis (TB) in the United States requires expanding testing and treatment of latent TB infection.**

- Up to 13 million people in the U.S. are estimated to have latent tuberculosis (TB) infection.
- Latent TB infection is a condition in which a person is infected with the TB bacteria, but does not currently have active TB disease and cannot spread TB to others. However, if these bacteria become active and multiply, latent TB infection can turn into TB disease.
- Without treatment, on average 1 in 10 people with latent TB infection will develop TB disease. For some people, that risk is higher.
  - Some people are at much higher risk for developing TB disease once infected (e.g., HIV-infected persons, diabetics, smokers, drug abusers, anyone on immune suppressing drugs).
  - The greatest risk for progression from latent TB infection to TB disease occurs within the first 2 years after infection.
  - Identifying and treating infected persons can greatly reduce the risk of progression to TB disease.
- More than 85% of U.S. TB cases are believed to be associated with longstanding, untreated latent TB infection.



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- Testing and treating people at-risk for latent TB infection is the most effective way to prevent TB disease.
  - A TB blood test or a TB skin test can detect TB infection.
  - Increased use of shorter regimens will help patients to complete treatment.
- Modeling studies suggest that the United States can only reach its goal of TB elimination if the strategy includes a major increase in LTBI testing and treatment. Offering LTBI screening and treatment to foreign-born persons would provide the greatest impact on reducing future cases of TB disease.

**The Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF) recommend testing populations that are at increased risk for TB infection.**

- Anyone can get TB. However, some people have a higher risk of getting infected with TB bacteria. The CDC supports the USPSTF recommendation to test certain high-risk groups for TB infection. These groups include:
  - People born in or who frequently travel to countries where TB disease is common, including Mexico, the Philippines, Vietnam, India, China, Haiti, and Guatemala, or other countries with high rates of TB. (*Of note, people born in Canada, Australia, New Zealand, or Western and Northern European countries are not considered at high risk for TB infection, unless they spent time in a country with a high rate of TB.*)
  - People who currently, or used to, live in large group settings, such as homeless shelters or prisons and jails where TB is more common.
- CDC also recommends testing for TB infection for other high-risk groups. These groups include:
  - Health care workers and others who work in places at high risk for TB transmission, such as hospitals, homeless shelters, correctional facilities, nursing homes, and residential homes for those with HIV.
  - Someone who has spent time with a person who has infectious TB disease.
- Others with weaker immune systems, such as those with certain health conditions or taking certain medications, have a higher risk of developing TB disease once infected. Testing for TB infection should be part of their regular medical care.
  - Health problems that increase a person’s risk of developing TB disease once infected include:
 

<ul style="list-style-type: none"> <li>▪ HIV</li> <li>▪ Substance abuse (such as smoking, alcohol abuse, or injection drug use)</li> <li>▪ Silicosis</li> <li>▪ Diabetes mellitus</li> <li>▪ Severe kidney disease</li> <li>▪ Low body weight</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organ transplants</li> <li>▪ Head and neck cancer</li> <li>▪ Medical treatments such as corticosteroids or organ transplant</li> <li>▪ Specialized treatment for rheumatoid arthritis or Crohn’s disease</li> </ul>
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- **Children, especially those under age 5, have a higher risk of developing TB disease once infected. Therefore, testing for TB infection in children is important if they are in one of the risk groups noted above.**

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**Clinicians, health care agencies, and community organizations, especially those serving at-risk populations, have a critical role in TB elimination.**

- The USPSTF recommendation provides an opportunity for private health care providers to offer testing for latent TB infection to persons who previously may not have been included in public health or employee testing programs.
- CDC works with partners to promote communication and engagement with affected communities and the health care providers serving these communities.
- CDC and state and local TB control programs can provide guidance, educational resources, and training on latent TB infection testing and treatment.

### Latent TB Infection Facts:

#### TB Basics

- TB is caused by a bacterium called *Mycobacterium tuberculosis*.
  - The bacteria usually attack the lungs, but TB bacteria can attack and damage any part of the body such as the kidney, spine, and brain.
- TB is spread through the air from one person to another.
  - TB bacteria are put into the air when a person with TB disease of the lungs or throat coughs, speaks, or sings. People nearby may breathe in these bacteria and become infected.
  - TB is not spread by shaking someone's hand, sharing food or drink, touching bed linens or toilet seats, sharing toothbrushes, or kissing.
- There are two forms of TB: latent TB infection and TB disease.
  - People with latent TB infection don't feel sick, don't have symptoms, and can't spread TB bacteria to others. Without treatment, they are at risk for developing TB disease.
  - People with TB disease feel sick, have signs and symptoms, and may spread TB bacteria to others.
  - Symptoms of TB disease may include a bad cough that lasts 3 weeks or longer, chest pain, weight loss, and night sweats.
- People who think they were exposed to someone with TB disease should contact their health care provider or the local health department to see if testing is needed.

#### Latent TB Infection in the United States

- Up to 13 million people in the United States are estimated to have latent tuberculosis (TB) infection
  - While TB disease is a nationally notifiable disease, latent tuberculosis infection (LTBI) is not reported to CDC.
  - Despite declines of TB disease in the United States, there has been no significant change in the rate of latent TB infection over the last decade.
- The percentage of people with latent TB infection is lower among persons born in the United States, as compared with persons born in most other countries.

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- More than 85% of U.S. TB cases are believed to be associated with longstanding, untreated latent TB infection.

#### Tuberculosis in the United States

- In 2015, a total of 9,557 TB cases were reported in the United States.
  - In 2015, 66% of reported TB cases in the United States occurred in foreign-born persons.
  - TB in the United States is most common among persons who were born in other countries.
    - These persons often develop TB disease many years after arriving in the United States because of reactivation of latent TB infection that occurred in their home countries.
  - More than 85% of U.S. TB cases are believed to be associated with longstanding untreated latent TB infection.
- After two decades of annual declines, TB incidence in the United States has stalled at approximately 3.0 cases per 100,000 persons.

#### Testing for TB Infection

- There are two kinds of tests that are used to determine if a person has been infected with TB bacteria: the TB blood test and TB skin test.
  - TB Blood Test (Interferon Gamma Release Assays – IGRAs)
    - TB blood tests (sometimes called IGRAs) use a blood sample to find TB infection. The tests measure the response of TB proteins when they are mixed with a small amount of blood. Only one visit is required to draw blood for the test.
    - TB blood tests are the preferred method of TB testing for people 5 years of age and older who have received the BCG vaccine.
    - A positive reaction usually means TB infection. More tests are needed to rule out TB disease.
  - TB Skin Tests (TST):
    - With a TB skin test, a health care provider injects a small amount of testing fluid (called tuberculin or PPD) into the skin on the lower part of the arm.
    - After 2 or 3 days, the skin test reaction must be examined by a trained health care worker. The health care worker measures any swelling where the tuberculin was injected to determine if the reaction to the test is positive or negative.
- A positive reaction to a TB blood test (IGRA) or TB skin test (TST) usually means TB infection. More tests are needed to rule out TB disease.
- A diagnosis of latent TB infection is made if a person has a positive TB blood test (IGRA) or TB skin test (TST) result and a medical exam does not indicate TB disease.

#### Latent TB Infection Treatment

- There are four treatment regimens available for the treatment of latent TB infection.
  - These four regimens use the drugs isoniazid, rifapentine, or rifampin.
  - Treatment for latent TB infection can take 3 to 9 months, depending on the regimen.
  - Shorter treatment regimens can help patients complete treatment faster and with fewer side effects.
- CDC resources can help health care providers choose the appropriate regimen for patients.
  - One recent advancement in latent TB infection treatment options is a shorter regimen that combines isoniazid and rifapentine, and is administered once weekly for 12 weeks.
    - This regimen is recommended to be delivered using directly observed treatment (DOT). DOT is usually done by a health care worker, to monitor for any side effects, and to make sure patients take all the medication.
    - This regimen is recommended for otherwise-healthy people 12 years or older.
      - This regimen is not recommended for children younger than 2, people living with HIV taking antiretroviral treatment, or pregnant women.
  - A daily 4-month rifampin regimen can be considered for persons who cannot tolerate isoniazid or who have been exposed to isoniazid-resistant TB.
  - There are two isoniazid regimen options: a 9-month or 6-month daily regimen.
    - The 9-month regimen is preferred because it is the most effective.
    - The 9 month regimen is the preferred treatment regimen for children ages 2-11, people living with HIV taking antiretroviral treatment, and pregnant women.
    - Clinicians should make sure that patients complete at least 6 months of isoniazid to treat latent TB infection.
- Treating latent TB infection is less costly than treating TB disease.
  - It costs about \$500 to treat someone with latent TB infection. Treating a typical case of TB disease costs about \$18,000.

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### CDC Resources:

- **Online:**

- Division of TB Elimination Website:
  - <http://www.cdc.gov/tb> (English)
  - <http://www.cdc.gov/tb/esp/> (Spanish)
- Twitter: [@CDC\\_TB](#)
- Facebook: [@CDCTB](#)
- Mobile app for Health Care Providers: [Latent Tuberculosis Infection: Guide for Diagnosis and Treatment](#)
- Selected CDC TB content available for [syndication](#)
- [Prevention Through Health Care](#) Website

- **Fact Sheets (Web and PDF):**

- [The Difference Between Latent TB Infection and TB Disease](#) (available in [Spanish](#))
- [TB – General Information](#) (available in [Spanish](#))
- [Testing for Tuberculosis \(TB\)](#) (available in [Spanish](#))
- [Interferon-Gamma Release Assays \(IGRAs\) – Blood Tests for TB Infection Fact Sheet](#)
- [Tuberculin Skin Testing Fact Sheet](#) (available in [Spanish](#))
- [Targeted Tuberculosis Testing and Interpreting Tuberculin Skin Test Results](#)
- [Treatment Options for Latent Tuberculosis Infection](#)
- [Treatment of Latent Tuberculosis Infection: Maximizing Adherence](#)
- What You Need to Know About Your Medicine for Latent Tuberculosis (TB) Infection Fact Sheet Series (PDF):
  - [Isoniazid and Rifapentine-specific Regimen](#) (available in [Spanish](#))
  - [Rifampin-specific Regimen](#) (available in [Spanish](#))
  - [Isoniazid-specific Regimen](#) (available in [Spanish](#))

- **Graphics:**

- Take on Latent TB Infection:
  - [Infographic](#) (pdf and web)
  - [Social Media Graphics](#) (jpg)
- TB Disease: Only the Tip of the Iceberg:
  - [Infographic](#) (8.5 x 11 and 11 x 17)
  - [Social Media Graphics](#) (jpg)
  - [Web Buttons](#)

- **Pamphlets:**

- [Questions and Answers about Tuberculosis](#)
- [12-Dose Regimen for Latent TB Infection-Patient Education Brochure](#)

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### U.S. Preventive Services Task Force Recommendation on Latent Tuberculosis Infection

- **Guidelines:**
  - [Latent Tuberculosis Infection: A Guide for Primary Health Care Providers](#)
  - [Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection](#)
- **Training:**
  - [TB 101 for Health Care Workers](#) (available in [Spanish](#))
  - [Interactive Core Curriculum on Tuberculosis: What the Clinician Should Know](#)
  - [Self-Study Modules on Tuberculosis](#)
  - [Targeted Tuberculosis \(TB\) Testing and Treatment of Latent TB Infection](#) (slide set)

#### Additional Resources:

- [U.S. Preventive Services Task Force Resources](#)
- [Journal of the American Medical Association Resources](#)
- [Bright Futures Recommendations for Pediatric Preventive Health Care](#)

#### Helpful Links:

- [State TB Control Programs](#)
- [Find TB Resources](#) is a worldwide library of online resources, training, and educational materials and resources about TB.
- CDC funds five [Regional Training and Medical Consultation Centers](#) to provide training, technical assistance, and medical consultation to TB programs and medical providers.
- The [TB Education and Training Network](#) brings TB professionals together to network, share resources, and build education and training skills.
- [National Prevention Information Network](#)