

# CDC Messages and Resources:

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

The Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF) [recommend](#) testing people who are at increased risk for tuberculosis (TB) infection. Clinicians, health care agencies, and community organizations, especially those serving populations at risk for TB disease, have a critical role in TB elimination.

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](#)

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

### Key CDC Messages

- Eliminating TB in the United States requires expanding testing and treatment of latent TB infection.
- The CDC and the USPSTF recommend testing populations that are at increased risk for TB infection.
- Clinicians, health care agencies, and community organizations, especially those serving populations at increased risk, have a critical role in TB elimination.

### Supporting Messages

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

- Up to 13 million people in the United States are estimated to have latent TB infection.
- Latent TB infection is a condition in which a person is infected with the TB bacteria (*M. tuberculosis*) but does not currently have TB disease. People with latent TB infection do not have signs and symptoms of TB disease and cannot spread TB bacteria to others. However, if these bacteria become active and multiply, latent TB infection can develop into TB disease.
- Without treatment, about 5–10% of people with latent TB infection will develop TB disease. For some people, that risk is higher.
  - Some people with weaker immune systems, such as those with certain health conditions or who take certain medications, have a higher risk of developing TB disease once infected.
  - The greatest risk for progression from latent TB infection to TB disease occurs within the first 2 years after infection.
  - Identifying and treating people with latent TB infection can greatly reduce the risk of progression to TB disease.
- More than 80% of U.S. TB cases are believed to be associated with longstanding, untreated latent TB infection.
- 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.
  - TB blood tests are the preferred method of TB testing for people 5 years of age and older who have received the [bacille Calmette-Guérin \(BCG\) vaccine](#).

## CDC Messages and Resources:

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

- CDC and the National Tuberculosis Controllers Association (NTCA) preferentially recommend short-course, rifamycin-based, 3- or 4-month latent TB infection treatment regimens over 6- or 9-month isoniazid (INH) monotherapy (6H or 9H, respectively).
  - Short-course regimens include three months of once-weekly INH plus rifapentine (RPT) (3HP), four months of daily rifampin (RIF) (4R), and three months of daily INH plus RIF (3HR).
  - Short-course latent TB infection treatments are effective, are safe, and have higher completion rates than longer treatments.
- Modeling studies suggest that the United States can only reach its goal of TB elimination if the strategy includes a major increase in latent TB infection testing and treatment. Offering latent TB infection screening and treatment to non-U.S.-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. CDC supports the USPSTF recommendation to test people who are at increased risk for TB infection, including:
  - People born in or who frequently travel to countries where TB disease is common. (*In general, 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, live or used to live in large group settings where TB is more common, such as homeless shelters, correctional facilities, or detention centers.
- CDC also recommends testing for TB infection for:
  - [Health care workers](#) and others who work in places at high risk for TB transmission, such as hospitals, homeless shelters, correctional facilities, detention centers, and nursing homes. For TB regulations in your area, please contact your [state or local TB control program](#).
  - Anyone 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 infection</li> <li>▪ Recent infection with <i>M. tuberculosis</i> (within the last 2 years)</li> <li>▪ History of untreated or inadequately treated TB disease</li> <li>▪ Medical treatments that suppress the immune system (such as tumor necrosis factor-alpha (TNF) antagonists, corticosteroids, or drug therapy following organ transplants)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Silicosis; chronic renal failure; leukemia; or cancer of the head, neck, or lung</li> <li>▪ A gastrectomy or jejunioileal bypass</li> <li>▪ Diabetes mellitus</li> <li>▪ Low body weight (&lt;90% of ideal body weight)</li> <li>▪ Substance use (such as injection drug use)</li> </ul>
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- Children, especially those younger than 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.

## CDC Messages and Resources:

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

**Clinicians, health care agencies, and community organizations, especially those serving populations at risk for TB disease, 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 might not have been tested as part of public health, employee, or school enrollment testing programs.
- Testing for TB infection should be a routine and integral part of health care for patients with increased risk for TB. Health care providers are encouraged to use TB blood tests to screen for TB infection.
- 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 and TB Disease Facts

##### TB Basics

- [TB is caused by bacteria 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.
  - When a person with TB disease of the lungs or throat coughs, speaks, or sings, TB bacteria can get into the air. People nearby might 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.
  - Two TB-related conditions exist: [latent TB infection and TB disease](#).
- People with latent TB infection do not feel sick, do not have symptoms, and cannot 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 can spread TB bacteria to others.
  - Symptoms of TB disease may include a bad cough that lasts 3 weeks or longer, chest pain, coughing up blood or sputum (phlegm from deep inside the lungs), 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 TB infection.](#)
  - While TB disease is a nationally notifiable disease, reporting latent tuberculosis infection to CDC is optional
- CDC estimates suggest that despite declines of TB disease in the United States, no significant change in the proportion of the population with latent TB infection has been observed.
- 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.
- More than 80% of U.S. TB cases are believed to be associated with longstanding, untreated latent TB infection.

## CDC Messages and Resources:

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#### TB in the United States

- [In 2021, a total of 7,882 TB cases were reported in the United States.](#)
- In 2021, 71.4% of reported TB cases in the United States occurred among non-U.S.–born persons.
  - A disproportionate number of U.S. TB cases continue to affect people born outside of the United States, largely because of progression to TB disease from longstanding latent TB infection probably acquired before arriving in the United States.
  - The most common countries of birth among non-U.S.–born persons with TB remained similar to previous years and included Mexico (18.7%), the Philippines (12.3%), India (10.2%), Vietnam (7.5%), and China (5.6%).
- More than 80% of U.S. TB cases are believed to be associated with longstanding untreated latent TB infection.
- In 2021, about 88% of the TB cases reported in the United States were in racial and ethnic minority groups.
  - Asian persons continued to represent the largest proportion of persons with TB (36.0%), followed by Hispanic persons (30.6%), Black or African American persons (18.0%), and White persons (11.2%).
- The United States continues to have one of the lowest TB case rates in the world.
  - In 2020, the annual rate of decline was substantially greater than in previous years, probably because of factors associated with the COVID-19 pandemic, including a combination of TB underdiagnosis and a true reduction in incidence.
  - TB incidence partially rebounded in 2021, which might be explained by the effects of the COVID-19 pandemic shifting over time.
  - The effects of the COVID-19 pandemic on TB epidemiology are complex and will probably persist for many years.
  - Still, too many people suffer from TB disease and our progress is too slow to eliminate TB in this century.
- The TB elimination threshold is <1 case per 1,000,000 population, which is approximately 330 cases per year for the current U.S. population.
- Ending TB will require a dual approach of maintaining and strengthening current TB control priorities, while increasing efforts to identify and treat latent TB infection in populations at risk for TB disease.

#### 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 blood draw visit is required 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.
  - [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

### Testing for TB Infection (continued)

- 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 [several treatment regimens](#) available for the treatment of latent TB infection.
  - These [regimens use the drugs INH, RPT, or RIF](#).
  - Treatment for latent TB infection can take 3 to 9 months, depending on the regimen.
- While all regimens are effective, [short-course, rifamycin-based, 3- or 4-month regimens are the preferred treatment options](#) for latent TB infection.
  - Short-course latent TB infection treatment regimens are effective, are safe, and have higher completion rates than longer 6- to 9-month INH monotherapy.
  - Shorter, rifamycin-based treatment regimens generally have a lower risk of hepatotoxicity than longer 6 to 9 months of INH monotherapy.
  - If short-course treatment is not an option (for example, due to drug interactions with rifamycins), 6- or 9- months of daily INH are effective latent TB infection treatment regimens.
- CDC resources can [help health care providers choose the appropriate regimen](#) for patients.
  - [Three months of once-weekly INH plus RPT regimen \(3HP\)](#)
    - 3HP is recommended for people older than 2 years of age, including people with HIV/AIDS who are taking antiretroviral medications that have acceptable drug-drug interactions with RPT.
    - 3HP is not recommended for children younger than 2 years of age, people with HIV/AIDS who are taking antiretroviral medications with clinically significant or unknown drug interactions with once-weekly RPT, people presumed to be infected with INH- or RIF-resistant *M. tuberculosis*, or pregnant people or people expecting to become pregnant during the 3-month regimen.
  - [Four months of daily RIF regimen \(4R\)](#)
    - 4R is recommended for HIV-negative adults and children of all ages.
    - 4R is especially recommended for people who cannot tolerate INH or who have been exposed to INH-resistant TB.
  - [Three months of daily INH and RIF regimen \(3HR\)](#)
    - 3HR is recommended for adults and children of all ages, including HIV-negative and HIV-positive patients as drug interactions allow.
  - Six or nine months of daily INH regimens (6H or 9H)
    - 6H is strongly recommended for recommended for HIV-negative adults and children of all ages and is a treatment option for HIV-positive adults and children of all ages.
    - 9H is another treatment option for both HIV-negative and HIV-positive adults and children of all ages.
- Treating latent TB infection is much less costly than treating TB disease.

# CDC Messages and Resources:

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### CDC Resources

#### Online

- Division of TB Elimination Website:
  - <https://www.cdc.gov/tb> (English)
  - <https://www.cdc.gov/tb/esp/> (Spanish)
- Twitter: [@CDC\\_TB](#)
- Facebook: [@CDCTB](#)
- [Think. Test. Treat TB Campaign](#)
- Selected CDC TB content available for [syndication](#)
- [Prevention Through Health Care](#) Website

Additional CDC education and training materials may be viewed and downloaded online at the [patient & general public materials website](#).

[Find TB Resources](#) is a worldwide library of online resources, training, and educational materials and resources about TB.

Select materials are available in print and can be ordered from the [CDC-INFO On Demand publications system](#).

### Highlighted CDC Educational Materials

#### Online Resources

- [Latent TB Infection Online Resource Hub](#)
- [Introduction to Tuberculosis](#)
- [TB 101 for Health Care Workers](#)

#### Print Resources

- [Latent Tuberculosis Infection: A Guide for Primary Health Care Providers](#)
- [Latent TB Infection: Summary of U.S. Recommendations](#)
- [Patient Education Materials Series \(available in multiple languages\)](#)
- [Questions and Answers About Tuberculosis \(available in multiple languages\)](#)
- [Core Curriculum on Tuberculosis: What the Clinician Should Know](#)

#### Videos

- [5 Things to Know about TB](#)
- [TB Personal Stories](#)

### TB Centers of Excellence for Training, Education, and Medical Consultation

The CDC's Division of Tuberculosis Elimination funds four [TB Centers of Excellence for Training, Education, and Medical Consultation \(TB COEs\)](#). To view all of the educational materials developed by the TB COEs, visit the [TB COE's Products website](#).

### Additional Resources

- [TB Elimination Alliance](#)
- [U.S. Preventive Services Task Force Resources](#)
- [Journal of the American Medical Association Resources](#)
- [Bright Futures Recommendations for Pediatric Preventive Health Care](#)
- [State TB Control Programs](#)
- [TB Education and Training Network](#)
- [World Health Organization](#)