



U.S. Preventive Services Task Force Recommendation Statement: Screening for Latent Tuberculosis Infection (LTBI) in Adults

Centers for Disease Control and Prevention

Division of Tuberculosis Elimination

September 2016

Background: An Opportunity for Outreach

The U.S. Preventive Services Task Force (USPSTF) published a new recommendation to test for latent tuberculosis (TB) infection (LTBI) in populations at increased risk.

The TB community has a unique opportunity to use the announcement of this recommendation to draw attention to LTBI and educate the public, health care providers, at-risk populations, and policy makers on the importance of targeted testing and treatment for LTBI.



LTBI in the United States

- Up to 13 million people in the United States are estimated to have LTBI.
 - While TB disease is a nationally notifiable disease, 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 LTBI over the last decade.
- People who have latent TB infection were exposed to TB in the past.
- More than 85% of U.S. TB cases are believed to be associated with longstanding untreated LTBI.



Addressing LTBI to Accelerate TB Elimination

- DTBE has a central role in encouraging the expansion of LTBI testing and treatment in the United States.
- DTBE partners with state and local TB control programs to provide guidance, educational resources, and training on latent TB infection testing and treatment.
 - DTBE needs new strategies to expand partnerships and reach new audiences.
- Targeted testing and treatment of persons at greatest risk for TB is the most effective way to further reduce the number of new TB cases in the United States.



U.S. Preventive Services Task Force (USPSTF)

The Patient Protection and Affordable Care Act ("ACA") March 23, 2010 Goals:

- Providing more Americans with access to affordable health insurance
 - In 2013 approximately 44 million Americans were without health insurance (about 16% of the population).
 - At end of open enrollment in 2014, fewer than 13% of Americans were uninsured. By 2015 the uninsured rate had fallen below 10%
- Improving the quality of health care and health insurance
- Regulating the health insurance industry
- Reducing health care spending in the US



ACA and the U.S. Preventive Services Task Force

- Under ACA, preventive services with a USPSTF Grade of A or B are covered without cost-sharing (e.g., copayment or deductible) by many health insurance plans or policies
- Plans subject to this requirement (i.e. “non-grandfathered” plans) must comply within the first plan year that begins one year after the September 6, 2016 USPSTF recommendation
 - For example, plan years that begin January 1st will have to comply by January 1, 2018 at the latest



USPSTF

- The USPSTF is an independent, volunteer panel of national experts in prevention and evidence-based medicine.
- The primary goal of the USPSTF is to develop and disseminate evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications.
- Recommendations are developed based on rigorous review of existing peer-reviewed evidence, and evaluation of benefits and harms.
- Recommendations address only services offered in the primary care setting or services referred by a primary care clinician.
- Recommendations apply only to people who have no signs or symptoms of the specific disease or condition that the screening, counseling, or preventive medication targets.
- Recommendations are available online and in peer-reviewed literature.
 - <http://www.uspreventiveservicestaskforce.org/BrowseRec/Index/browse-recommendations>

USPSTF

- Every USPSTF recommendation is assigned a letter grade
- These grades are based on the strength of the evidence on a specific preventive service

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

<http://www.uspreventiveservicestaskforce.org/uspstf/grades.htm>

History of USPSTF LTBI recommendations

- 1996: USPSTF recommended (Grade A) LTBI screening of high-risk persons.
- 2002: USPSTF deferred to CDC LTBI testing recommendations to avoid duplication of other Federal Agency efforts. (no USPSTF Grade)

For current recommendation

- 2013: CDC and the Agency for Healthcare Research and Quality signed an interagency agreement to initiate a review.
- 2014: USPSTF posted LTBI Research Plan for 30-day public comment period.
- 2016: USPSTF posted Recommendation and Evidence Review for 30-day public comment period.
- 2016: USPSTF published final Recommendation



Questions Considered for USPSTF Recommendation

- Benefits of screening
 - *Does screening for the disease result in decreased incidence?*
 - *Does screening result in reduced mortality or morbidity?*
 - *Are screening tests accurate and reliable?*
 - *Are sequential screening strategies accurate and reliable?*
- Risks of screening
 - *Are there harms to screening or the diagnostic work-up?*
- Benefits of treatment
 - *Does LTBI treatment reduce transmission of TB and mortality?*
- Risks of treatment
 - *Are there harms associated with treatment of LTBI?*



2016 USPSTF Recommendation

2016 Recommendation

The USPSTF recommends screening for LTBI in populations that are at increased risk (B recommendation)

Population	Recommendation	Grade (What's This?)
Adults who are at increased risk for tuberculosis	The USPSTF recommends screening for latent tuberculosis infection (LTBI) in populations that are at increased risk.	B

*B Recommendation = USPSTF recommends this service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.



2016 USPSTF Recommendation

- This recommendation applies to asymptomatic adults ≥ 18 years of age who are at increased risk for TB and are seen in primary care settings.
 - Born in, or former residents of, countries with increased tuberculosis prevalence (*e.g., Mexico, Philippines, Vietnam, India, China, Haiti, Guatemala*); or
 - Currently live in, or have lived in, high-risk congregate settings (*e.g., homeless shelters, long-term care facilities, correctional facilities*).
- It does not apply to adults with symptoms of TB disease or children and adolescents (children and adolescents screening addressed in Bright Futures).




Additional Populations at Risk for LTBI

- The recommendation does not address the additional need for LTBI testing in other high-risk populations.
- CDC recommends the following populations continue to be tested for LTBI as part of other screening efforts:
 - Persons with immunosuppression: TB testing is included in standards of care for disease or medical management for HIV/AIDS, immunosuppressive medications, and silicosis.
 - Persons who are contacts of persons with active TB disease: TB testing is conducted as part of public health programs.
 - Health care workers and workers in high-risk congregate settings: TB testing is conducted as part of employee health programs.



Bright Futures: TB Testing for Children

- Bright Futures is a national health promotion and prevention initiative, led by the American Academy of Pediatrics and supported by the Maternal and Child Health Bureau, Health Resources and Services Administration.
- Bright Futures recommends TB testing for children at high-risk, and many health plans are required to cover the service under the Patient Protection and Affordable Care Act (ACA) at no-cost.

 Bright Futures Medical Screening Reference Table 12 Month Visit			
Selective Screening	Medical History Risk Factors	Risk Assessment ^a	Action if Risk Assessment Is Positive
Tuberculosis		<ul style="list-style-type: none">• Was your child born in a country at high risk for tuberculosis (countries other than the United States, Canada, Australia, New Zealand, or Western Europe)?• Has your child traveled (had contact with resident populations) for longer than 1 week to a country at high risk for tuberculosis?• Has a family member or contact had tuberculosis or a positive tuberculin skin test?• Is your child infected with HIV?	Tuberculin skin test

Additional Related Guidelines

- American Thoracic Society and CDC Statement: Targeted tuberculin testing and treatment of latent tuberculosis infection. [MMWR Recomm Rep. 2000;49\(RR06\):1-54](#)
- Guidelines for the investigation of contacts of persons with infectious tuberculosis. [MMWR Recomm Rep. 2005;54\(RR-15\):1-47](#)
- Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care settings, 2005. [MMWR Recomm Rep. 2005;54\(RR-17\):1-141](#)
- Occupational Safety and Health Administration. Enforcement Procedures and Scheduling for Occupational Exposure to Tuberculosis. [Directive No. CPL 02-02-078](#)



Public Health Implications of USPSTF Recommendation for LTBI Screening

Strategic Implications of LTBI Recommendation

- USPSTF recommendation can serve as a catalyst for increasing focus on LTBI targeted testing and treatment, particularly in persons who reside in, but were born outside of, the United States.
- The recommendation is a critical tool for moving TB elimination efforts forward by addressing the reservoir of LTBI.



Impact to Medicare and Medicaid

- For LTBI screening without cost-sharing to be available to Medicare beneficiaries, the Centers for Medicare and Medicaid Services must first complete a Medicare National Coverage Determination.
- LTBI screening may not be available without cost-sharing to traditional Medicaid beneficiaries.
- LTBI screening may be available to Medicaid beneficiaries enrolled in alternative benefit plans.



Implications of USPSTF LTBI Recommendation for Clinical Practice

USPSTF LTBI Recommendation: Implications for Clinical Practice (1)

- TB prevention and control has traditionally been a function of state and local public health departments.
- However, many people at high risk for TB infection and TB disease who need to be tested and treated receive care from private healthcare providers and community health centers.
- The USPSTF recommendation expands opportunities for additional public and private health care providers to prevent and control TB.
- Providers should consult with their local or state health departments for populations at risk in their communities based on local demographic patterns.



USPSTF LTBI Recommendation: Implications for Clinical Practice (2)

- In the near future, many health plans should cover LTBI screening without cost-sharing for at-risk asymptomatic adults age ≥ 18 years in the following groups when using a provider within the health plan's network:
 - Persons born in, or former residents of, countries with increased TB prevalence
 - Persons who currently live in, or have lived in, high-risk congregate settings
- Other adults assumed to be at risk for LTBI may incur cost of co-pays, co-insurance, or deductibles for LTBI screening (depending on type of health coverage and setting in which screening is provided).



In Summary

- TB cannot be eliminated in the United States without increased efforts to test and treat LTBI.
- The USPSTF recommends screening for LTBI in adult populations that are at increased risk (B recommendation).
- USPSTF recommendation is a catalyst for increasing focus on LTBI targeted testing and treatment.
- The USPSTF recommendation expands opportunities for private health care providers to play a critical role in TB control and prevention.



DTBE's Communication Plan for USPSTF Recommendation

Overview



- Communication Objectives
- Communication Strategy
- Key Messages
- Communication Resources
- Communication Activities
- Next Steps



Overall DTBE Communication Objectives

- Communicate USPSTF recommendation and related policies to stakeholders
- Amplify communication activities from USPSTF and other partner activities
- Reinforce CDC latent TB infection guidelines and recommendations
- Provide links to latent TB infection resources, education materials, and training to help partners incorporate the recommendation into practice



DTBE's Communication Strategy

DTBE plans a multilayered approach with messages and materials tailored specifically for each audience.

- Reach public health care organizations and providers.
- Reach private health care organizations and providers serving high risk populations.
- Reach-high risk populations and organizations serving these populations.



Public Health Care Organizations and Providers

- Objective: Provide information and education about the USPSTF recommendation and direct providers to CDC latent TB infection resources.

<http://www.cdc.gov/tb/publications/ltni/ltniresources.htm>

- Target Audiences:
 - Primary: TB Stakeholders (NTCA, Stop TB USA, ATS, IDSA, Results, testing companies)
 - Secondary: Health care providers (Community Health Centers, Bureau of Primary Care Providers, Medical Associations), Public Health Associations, Health advocacy groups



Private Health Care Organizations and Providers Serving High Risk Populations

- Objective: Promote testing for TB infection for at-risk populations as a preventive service covered under the ACA.
- Target Audiences: healthcare providers, professional medical associations (especially those which primarily treat at-risk patients), community health centers
- Channels/strategies: association newsletters/blogs/website content; Medscape & other health care provider social network (Hippocrates, Sermo, etc.); social media, Twitter chat(s) with professional associations; toolkits for health departments to conduct outreach



High Risk Populations and Organizations Serving These Populations

- Objective: Encourage at-risk patients to ask their health care providers about latent TB infection testing.
- Target Audiences: people with untreated latent TB infection at risk for developing disease, community organizations and service providers that work with these populations
- Channels/strategies: traditional media, social media, provider education, poster/flyers in provider offices/clinics, CBOs, Health Insurance company newsletters



Latent TB Infection Messages and Resources

Key Messages

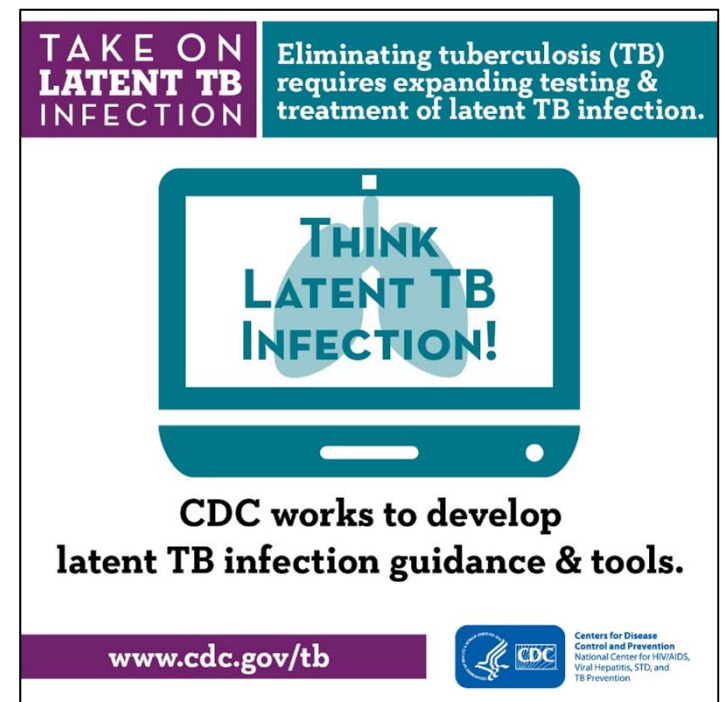
- Eliminating tuberculosis (TB) in the United States requires expanding testing and treatment of latent TB infection.
- The Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF) recommend testing populations that are at increased risk for TB infection.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



DTBE Resources

DTBE is highlighting latent TB infection resources including:

- Latent TB infection guidance
- Latent TB Infection infographics
- Fact Sheets
- Training



LTBI Resources Online Hub

- One-stop shop for resources, materials, and links to latent TB infection and USPSTF materials

The screenshot shows the CDC's LTBI Resources Online Hub. At the top is the CDC logo and the text "Centers for Disease Control and Prevention" with the tagline "CDC 24/7: Saving Lives. Protecting People™". A search bar is on the right. Below the header is a "CDC A-Z INDEX" dropdown. The main content area is titled "Tuberculosis (TB)". On the left is a sidebar menu with expandable sections: Tuberculosis, Basic TB Facts, Personal Stories, Testing & Diagnosis, Treatment, Drug-Resistant TB, Research, Infection Control, TB in Specific Populations, Laboratory Information, Data & Statistics, Professional Resources & Tools, Publications & Products, Events, World TB Day, Links, and About Us. The main content area features a "Latent Tuberculosis Infection Resources" section with social media icons (Facebook, Twitter, YouTube) and a large banner image with the text "LATENT TB INFECTION" showing two men in a clinical setting. Below the banner are two columns of resources: "Targeted Testing Recommendations" and "CDC Resources for USPSTF Recommendations". The "Targeted Testing Recommendations" column includes "CDC Guidance" with links to "Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection", "Latent Tuberculosis Infection: A Guide for Primary Health Care Providers", "LTBI: Guide for Diagnosis and Treatment Mobile Application for Health Care Providers", and "Targeted Tuberculosis (TB) Testing and Treatment of Latent TB Infection (slide set)". The "CDC Resources for USPSTF Recommendations" column includes "CDC Messages and Resources", "USPSTF LTBI Recommendation: Statement from Dr. Phillip LoBue, Director, CDC's Division of Tuberculosis Elimination", "Matte Articles" (with links to "Health Care Providers Critical in Expanded Effort to End TB in the U.S. (Health Care Providers)" and "Ending Tuberculosis Requires Focus on Prevention (General Public)"), and "USPSTF Recommendation Statement: Screening for Latent Tuberculosis Infection (LTBI) in Adults (slide set)".

<http://www.cdc.gov/tb/publications/lbti/lbiresources.htm>

CDC Latent TB Infection Key Messages and Resources

- Use as talking points and references for more information
- Messages focus on:
 - Risk factors for latent TB infection
 - Difference between latent TB infection and TB disease
 - Testing for TB infection
 - Treatment for latent TB infection

LATENT TB INFECTION

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.

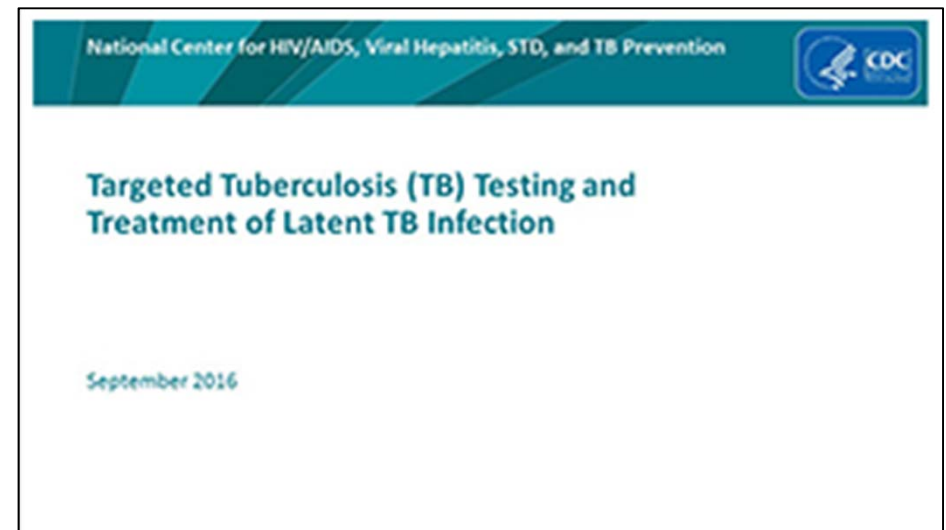
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National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of Tuberculosis Elimination



Targeted Tuberculosis (TB) Testing and Treatment of Latent TB Infection Slide Set

- Download and customize for outreach and education activities
- Contains information on:
 - Risk factors
 - Testing and test selection
 - Diagnosis and treatment regimens
 - Case studies



Matte Articles for General and Clinical Audiences

- Matte articles are ready-to-print articles that can be used in any publication
- Matte articles can be used in online and print media, bulletins, newsletters, and web features
- Partners can customize articles with location specific data, local subject-matter experts, and links for further information

Audience: Health Care Providers (for trade/health care provider focused publications)
Word count: 508 (not including title)
Topic: Latent TB Infection

[Health Care Providers] Critical in Expanded Effort to End TB in the U.S.

Audience: General Public
Word count: 458 (not including title)
Topic: Latent TB Infection

Ending Tuberculosis Requires Focus on Prevention

A new recommendation from the United States Preventive Services Task Force may make it easier to get tested for tuberculosis (TB) infection, which could help prevent future cases of TB disease.

TB was once the leading cause of death in the United States, but has faded from the memories of most Americans thanks to medical advances and public health efforts. But many people still suffer from this devastating disease, and it remains the leading infectious disease killer in the world.

"We need a new, expanded approach to eliminate TB in the United States," says [Dr. Philip LoBue, Director of the Division of Tuberculosis Elimination at the U.S. Centers for Disease Control and Prevention (CDC)]. "A major part of this approach is preventing people with latent TB infection from ever developing TB disease."

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. CDC estimates that up to 13 million people in the U.S. have latent TB infection, and without treatment, approximately one in ten of these people will develop TB disease.

It's hard to predict who will develop TB disease and who will not, but some people have a higher risk. CDC and the United States Preventive Services Task Force recommend screening for latent TB infection in populations at increased risk.

You should talk to your doctor about getting a TB blood test or TB skin test if:

- You had close contact with someone with TB disease;
- You are from, or often visit a part of the world where TB is common;
- You spend time in places where TB is more common, like hospitals, long-term care facilities, correctional facilities, or homeless shelters; and/or
- You have HIV, diabetes, or other health problems that make it harder for your body to fight disease.

A TB blood test or a TB skin test can find infection, and there are several options available for treating latent TB infection. [LoBue] says [CDC] is working to educate health care professionals on new options that make testing and treatment easier for patients. Treatment for latent TB infection is 90 percent effective in preventing future cases of TB disease, and is much easier and less expensive than treating someone with TB disease.

[LoBue] acknowledges the complexities of TB are challenging, but remains optimistic. "We're fortunate to have strong public health programs that work to prevent TB disease. But we won't be satisfied until we end TB for good."

[For more information on tuberculosis and latent tuberculosis infection, contact your health care provider, your state TB control program, or visit www.cdc.gov/tb/]

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Centers for Disease Control and Prevention

September 2016

ction of public health departments. who need to be tested and treated receive centers. The United States Preventive it may make it easier for those at risk to get system.

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hiazid and rifampentine given once weekly for mpletion rates with less liver toxicity, as leting treatment for latent TB infection can

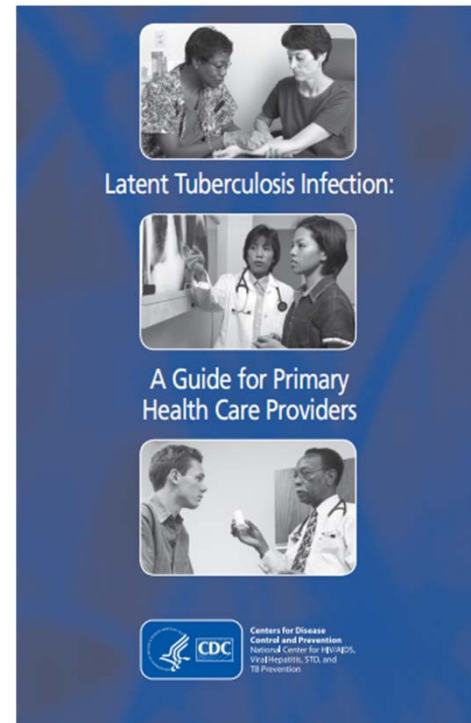
y firmly establishing testing for latent TB risk, [health care providers] can help ensure event them from progressing to TB disease."

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September 2016

Latent TB Infection Resources for Clinicians

- [Latent TB Infection: A Guide for Primary Health Care Providers](#)
- Mobile app for Health Care Providers: [Latent TB Infection: Guide for Diagnosis and Treatment](#)
- Medscape Expert Commentary (*coming soon*)



More: www.cdc.gov/tb/education/provider_educational_materials.htm

Latent TB Infection Infographics, Graphics & Web Buttons

TAKE ON LATENT TB INFECTION

Up to 13 million people in the U.S. have latent tuberculosis (TB) infection.

Latent TB Infection
Latent TB infection means TB germs are in the body, but not enough to cause sickness or spread germs to others.

TB Disease
If TB germs become active & multiply, latent TB infection can turn into TB disease.

1 in 10
Without treatment, 1 in 10 people with latent TB infection will develop TB disease.

PEOPLE WHO SHOULD BE TESTED FOR TB INFECTION INCLUDE:

- Contacts of people with TB disease.
- People from countries where TB disease is common.
- People with health problems that make it hard to fight TB disease.
- HOSPITALS, SHELTERS, CORRECTIONAL FACILITIES: People who spend time in places where TB is more common.

TREATING LATENT TB INFECTION PREVENTS TB DISEASE.

TB SKIN TEST
A skin test or blood test can find TB infection.

TB BLOOD TEST
Shorter regimens help patients finish treatment.

1 dose 1 time per week 12 weeks

\$17,000 TO TREAT TB DISEASE
\$500 TO TREAT LATENT TB INFECTION
Treating latent TB infection is less costly than treating disease.

ELIMINATING TB REQUIRES EXPANDING TESTING & TREATMENT OF LATENT TB INFECTION. CDC WORKS TO:

- Engage Affected Communities & Medical Providers.
- Promote Effective Testing & Treatment Options.
- Develop New Guidance & Tools.

To learn more about latent TB infection: www.cdc.gov/tb

MARCH, 2016

CDC
Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Tuberculosis (TB) Disease: Only the Tip of the Iceberg

There are two types of TB conditions: TB disease and latent TB infection.

People with **TB disease** are sick from active TB germs. They usually have symptoms and may spread TB germs to others.

People with **latent TB infection** do not feel sick, do not have symptoms, and cannot spread TB germs to others.

But, if their TB germs become active, they can develop **TB disease**.

Millions of people in the U.S. have **latent TB infection**. Without treatment, they are at risk for developing **TB disease**.

To learn more about TB, visit www.cdc.gov/tb

CDC
U.S. Department of Health and Human Services
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

LATENT TB INFECTION

LEARN MORE

LATENT TB INFECTION

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LATENT TB INFECTION

LEARN MORE

Fact Sheets and Patient Education Materials

TB Elimination The Difference Between Latent TB Infection and 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 TB bacteria 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 TB disease.

What is Latent TB Infection?
Persons with latent TB infection do not feel sick and do not have any symptoms. They are infected with TB bacteria, but do not have TB disease. The only sign of TB infection is a positive reaction to the tuberculin skin test or TB blood test. **Persons with latent TB infection are not infectious and cannot spread TB infection to others.**

Overall, without treatment, about 1 to 10% of infected persons will develop TB disease at some time in their lives. About half of those people who develop TB disease will die within the first two years of infection. For persons whose immune systems are weak, especially those with HIV infection, the risk of developing TB disease is considerably higher than for persons with normal immune systems.

Of special concern are persons infected by someone with extensively drug-resistant TB (XDR TB) who later develop TB disease: these persons will have XDR TB, not regular TB disease.

A person with latent TB infection


- Usually has a skin test or blood test result indicating TB infection
- Has a normal chest x-ray and a negative sputum test
- Has TB bacteria in his/her body that are alive, but inactive
- Does not feel sick
- Cannot spread TB bacteria to others
- Needs treatment for latent TB infection to prevent TB disease; however, if exposed and infected by a person with multidrug-resistant TB (MDR TB) or extensively drug-resistant TB (XDR TB), preventive treatment may not be an option.

What is 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 TB disease. Some people develop TB disease soon after infection, while others develop TB disease later when their immune system becomes weak.

The general symptoms of TB disease include:

- Unexplained weight loss
- Loss of appetite
- Night sweats
- Fatigue
- Cough


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 Centers for Disease Control and Prevention
National Center for HIV/AIDS, Dermatology, and STDs
Division of Tuberculosis Elimination

Questions and Answers About Tuberculosis

TB

2014

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Tuberculosis (TB) Facts

Testing for TB

What is TB?
"TB" is short for a disease called tuberculosis. TB is spread through the air from one person to another. TB germs are passed through the air when someone who is sick with TB disease of the lungs or throat coughs, sneezes, laughs, sings, or sneezes. Anyone near the sick person with TB disease can breathe TB germs into their lungs.

TB germs can live in your body without making you sick. This is called **latent TB infection**. This means you have only inactive (sleeping) TB germs in your body. The inactive germs cannot be passed on to anyone else. However, if these germs wake up and become active in your body and multiply, you will get sick with TB disease.

When TB germs are active (multiplying) in your body, this is called **TB disease**. These germs usually attack the lungs. They can also attack other parts of the body, such as the kidneys, brain, or spine. **TB disease** will make you sick. People with TB disease may spread the germs to people they spend time with every day.

How do I know if I have been infected with TB germs?
If you have been around someone who has TB disease, you should go to your doctor or your local health department for tests.

There are two tests that can be used to help detect TB infection: a TB skin test or a TB blood test. The skin test is used most often. A small needle is used to put some testing material, called tuberculin, under the skin. In 3-5 days, you return to the health care worker who will check to see if there is a reaction to the test. In some cases, a TB blood test is used to test for TB infection. This blood test measures how a person's immune system reacts to the germs that cause TB.

To tell if someone has TB disease, other tests such as chest x-ray and a sample of sputum (phlegm that is coughed up from deep in the lungs) may be needed.

Tell your health care worker if you have ever had a "positive" reaction to a TB skin test or TB blood test, or if you have been treated with TB drugs in the past.

 TB skin test

 TB blood test

 TB drugs

<http://www.cdc.gov/tb>

 Centers for Disease Control and Prevention
National Center for HIV/AIDS, Dermatology, and STDs
Division of Tuberculosis Elimination

What You Need to Know About Your Medicine for Latent Tuberculosis (TB) Infection

ISONIAZID and RIFAPENTINE

You have been given medicine to treat your latent TB infection. You do not have TB disease and cannot spread TB to others. This medicine will help you **prevent** getting TB disease.

Remember to Keep Your Weekly Visits:
You will meet with a health care worker weekly to take your medicines. This plan is called directly observed therapy (DOT). DOT can help you in several ways:

- The health care worker helps you to remember to take your medicines.
- You will complete your treatment as soon as possible.
- The health care worker will make sure you are not having problems with the medicines.
- During your weekly meetings, this person can answer your questions. You can also talk about any concerns you have.

While on This Medicine:

- Tell your doctor or nurse if you have questions or concerns with the medicine.
- Go to weekly visits.
- Discuss any alcohol use with your doctor. Alcohol use may cause side effects.
- Tell your doctor about all other medicines you are taking.
- Be sure to tell your other doctor that you are being treated for latent TB infection.
- Some people find that the medicines affect their loss when taken with food.

Latent TB Infection Medicine Schedule:
(Persons follow the appropriate day and number of pills)

Medicine	Schedule	Day	Number of pills (strength and days)
Isoniazid & Rifapentine	Once weekly	MTWTFSS	1 (500 mg / 150 mg) (2 weeks)

Your doctor may have you take isoniazid 500 mg with your medicines.

Notes:
Name of my doctor: _____
Name of my clinic: _____
Telephone number of my clinic: _____


Watch for these Possible Problems:

STOP AND call your TB doctor or nurse right away if you have any of the problems below:

- Loss of appetite, or no appetite for food
- Loss of weight or muscle, or weakness
- Fever
- Head or body aches
- Nausea or vomiting
- Yellowed skin or light stools
- Easy bruising or bleeding
- Rash or itching
- Following, dizziness, or vision
- Severe weakness or dizziness
- Tingling or numbness in your hands or feet
- Diarrhea

NOTE: It is normal if you notice, when you take these medicines, that your mouth tastes bitter. Tell your doctor these things become worse.

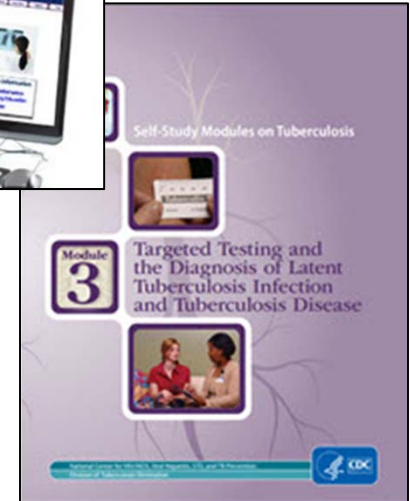
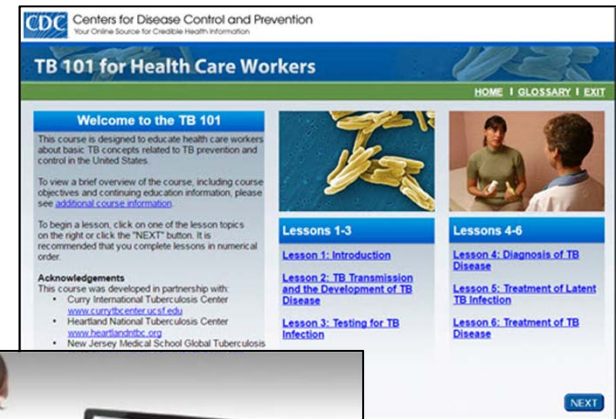
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 Centers for Disease Control and Prevention
National Center for HIV/AIDS, Dermatology, and STDs
Division of Tuberculosis Elimination

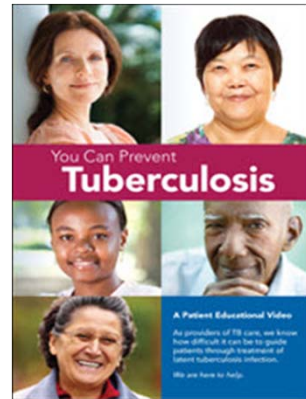
More: www.cdc.gov/tb/education/patient_edmaterials.htm

Training Resources

- [TB 101 for Health Care Workers](#)
(available in [Spanish](#))
- [Interactive Core Curriculum on TB: What the Clinician Should Know](#)
- [Self-Study Modules](#)
- [Find TB Resources](#)
- [Regional Training and Medical Consultation Centers](#)



RTM CC&TB Educational Products



California Tuberculosis Risk Assessment

Use this tool to identify appropriate adults for latent TB infection (LTBI) testing.

- The testing should only be done in persons who previously tested negative, and have no risk factors since the last assessment.
- For TB symptoms or observed chest x-ray consistent with active TB disease. • Excludes for active TB disease.

Testing for active TB disease with a chest x-ray, symptom review, and confirmed negative TB test results and history and epidemiologic testing. A negative tuberculin skin test or interferon gamma release assay does not rule out active TB disease.

Check appropriate risk factor boxes below.

LTBI testing is recommended if any of the 3 issues below are checked. If CTB test result is positive and active TB disease is ruled out, LTBI treatment is recommended.

☐ **Foreign-born person from a country with an elevated TB rate**

- Includes countries other than the United States, Canada, Australia, New Zealand, or Western and North European countries.
- If resources require prioritization within this group, prioritize patients with at least one medical risk for progression listed on this sheet for test.
- Interferon Gamma Release Assay is preferred over Tuberculin Skin Test for foreign born persons.

☐ **Immunosuppression, current or planned**

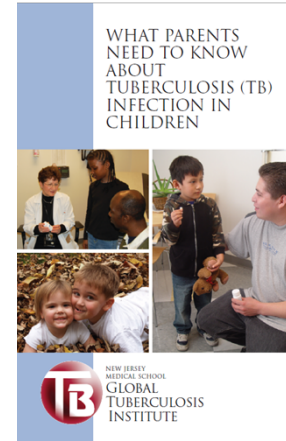
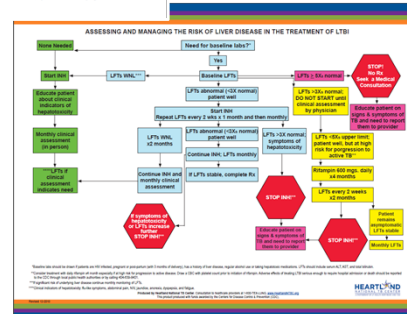
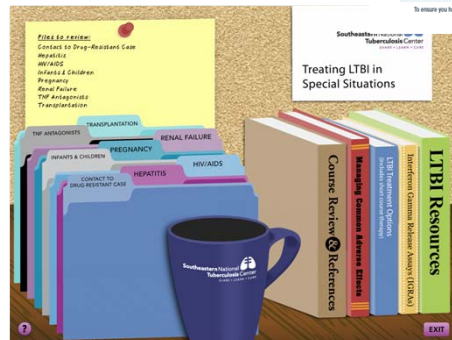
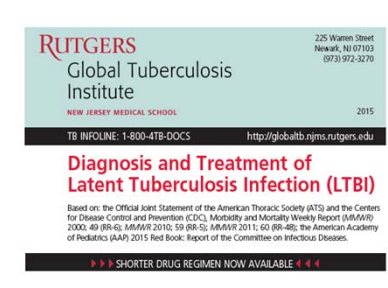
• HIV infection, organ transplant recipient, treated with TNF alpha antagonist (e.g., infliximab, etanercept, adalimumab) independent of prednisone at 10 mg/day for 14 months or other immunosuppressive medication.

☐ **Close contact to someone with infectious TB disease at any time**

See the California Tuberculosis Risk Assessment Fact Sheet for more information about using this tool.

Provider: _____ Patient Name: _____
 Assessment Date: _____ Date of Birth: _____ (Please check box to update)

To ensure you have the most current version, go to the PCH000000 page on cdc.org | Dec 2015



DTBE Communication Activities



- Traditional media: Statement from Dr. LoBue
- Partner emails (Dear Colleague, GovDelivery)
- CDC Newsletters (TB Notes, Connections)
- Social Media: DTBE Facebook and Twitter
- Outreach to TB stakeholders and professional associations (NTCA, RTMCCs)
- Amplification of USPSTF messages



Traditional Media Coverage

ScienceDaily

Screening for latent tuberculosis infection recommended for those at increased risk

Healio

USPSTF recommends screening for latent tuberculosis infection in adults at increased risk

Medscape Multispecialty ▾

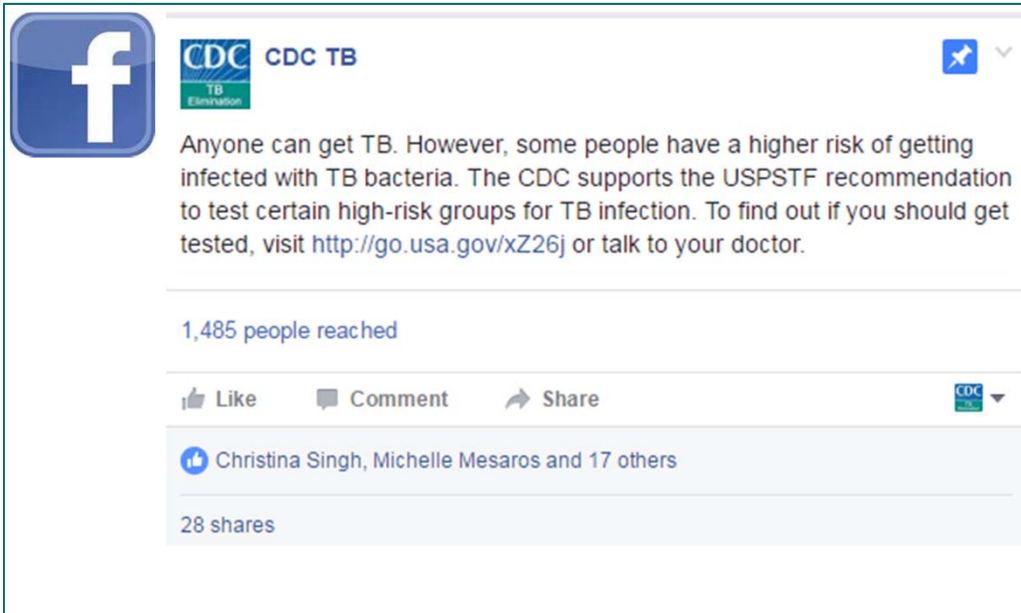
USPSTF: Screen At-risk Adults for Latent TB

MEDPAGETODAY

Expand Screening for Latent TB: USPSTF

— Task force argues benefit would be at least moderate and could be substantial

Social Media Coverage



Facebook post from CDC TB. The post text reads: "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. To find out if you should get tested, visit <http://go.usa.gov/xZ26j> or talk to your doctor." The post shows 1,485 people reached, 1 like, 0 comments, and 28 shares. The user profile picture is the CDC TB logo.

LinkedIn

Centers for Disease Control and Prevention Eliminating TB in the US requires expanding testing and treatment of latent TB infection in high-risk groups. A new USPSTF recommendation to test at-risk populations, along with better testing and treatment options can help prevent TB disease. For more information, visit: <http://bit.ly/2bUoMBD>



Like (40) • Comment (1) • Share • 1 day ago

Amy Sullivan, Khulud Khudur, MPH +38

Dr Pankaj Rajneesh Budhiraja Appreciate the efforts .
1 day ago



Dr. Jono Mermin @DrMerminCDC · Sep 7

New! USPSTF Latent #Tuberculosis Screening Recommendation: Please read this statement from @cdc_TB's Dr. Lobue: go.usa.gov/xZjSH #TB

Retweets: 4, Likes: 1



Dr. Tom Frieden @DrFriedenCDC · Sep 6

CDC supports new #USPSTF recommendation to test at-risk populations for TB infection. bit.ly/2bUoMBD

Retweets: 29, Likes: 17

Next Steps

- Continue to promote targeted testing and treatment of latent TB infection through CDC communication channels.
- Continue to provide resources to partners and stakeholders can use to promote targeted testing and treatment of latent TB infection through their communication channels.
- Listen to partners to learn what additional activities or materials should be developed.
- Conduct outreach to medical and public health professionals to inform and educate on latent TB infection.



And remember:

It's a marathon...



...not a sprint!



Questions?

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

