

Understanding Tuberculosis



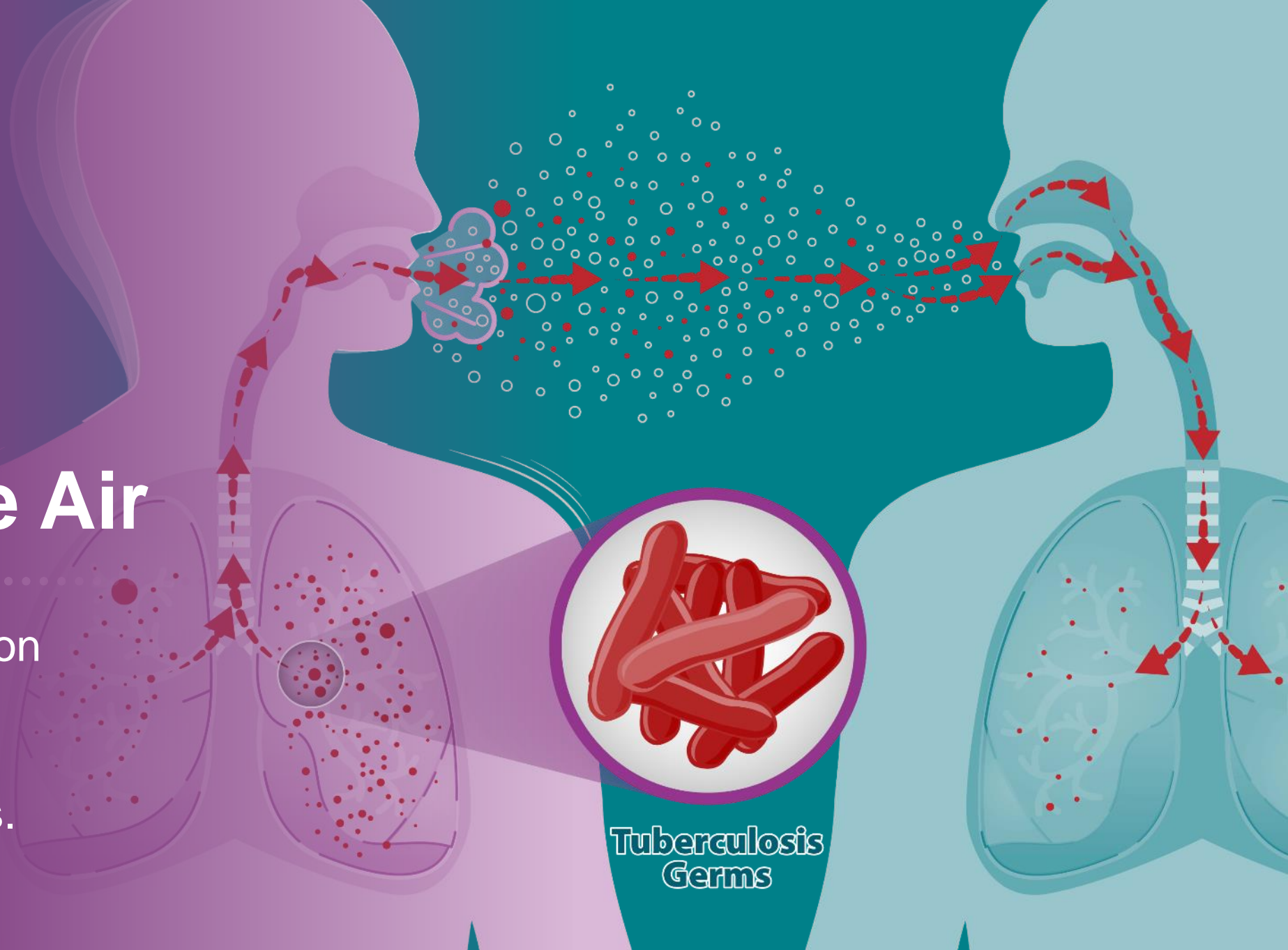
What is Tuberculosis (TB)?

- TB is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs
- TB is an important global infectious disease. In 2022:
 - In the United States, there were 8,331 people diagnosed and reported to CDC with TB disease
 - Globally, there were an estimated 10.6 million people with TB disease
- Safe and affordable treatments are available to prevent and cure TB



TB Spreads Through the Air

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TB spreads from person to person especially when someone with contagious TB coughs.



TB is NOT Spread by



Sharing
toothbrushes



Saliva from
kissing



Shaking
someone's hand



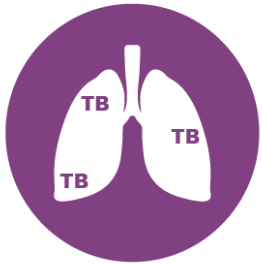
Touching bed
linens or toilets



Sharing food,
drink, or utensils



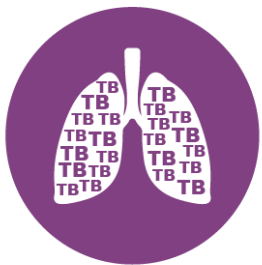
A Helpful Distinction to Make



Latent TB Infection (LTBI)

- People with latent (sleeping or dormant) TB infection have only a few TB bacteria that are alive but not active. These people:
 - Do not have any symptoms, and cannot spread TB bacteria to others
 - Can have LTBI for years or decades but may progress to TB disease
 - Up to 13 million people in the US have latent TB infection

TB Disease



- When those latent TB bacteria become active and multiply, it means that the latent TB infection has progressed to TB disease



Untreated Latent TB Infection Can Progress to TB Disease

- If a person's immune system can't stop TB bacteria from growing, they become active (multiply); this is called TB disease
- Most people diagnosed with TB disease in the US become sick after living with latent TB infection for years
- Treatment is >90% effective to prevent LTBI from progressing to TB disease



Distinguishing LTBI and TB



Person with Latent TB Infection

Has a few TB bacteria in his/her body that are alive but not multiplying

Cannot spread TB bacteria to others

Does not feel sick

Usually has a positive test for LTBI

Should consider treatment to prevent the LTBI from progressing to TB disease



Person with TB Disease

Has a large number of active TB bacteria in his/her body

May spread TB bacteria to others

May feel sick and have symptoms, especially unexplained coughing

Usually has positive test for LTBI

Needs treatment for TB disease

Possible TB Disease Symptoms



Night Sweats



Fever



Chills



Weakness
or fatigue



Weight loss



No appetite



Cough lasting
longer than
3 weeks



Pain in
the chest



Coughing up
blood or sputum
(phlegm from inside
the lungs)

Public Health Workers are Responsible for Finding TB Contacts

- A TB contact is person who has been exposed to someone with contagious TB disease
- Contacts can include family members, roommates or housemates, close friends, coworkers, classmates, and others
- The NH DHHS is now conducting a “contact investigation” by inviting those who have been close to this person with TB for LTBI testing



Two Types of Tests Can Be Used to Diagnose TB Infection

TB BLOOD TEST



Also known as an Interferon-Gamma Release Assay (IGRA)

OR

TB SKIN TEST



Also known as a PPD or tuberculin skin test (TST)



If test is **positive**, tests are done to make sure LTBI is not progressing to TB disease:



Medical examination



Chest x-ray

TB Blood Test

Blood is drawn and sent to a lab for analysis



Positive blood test: A person *likely* has been infected with TB bacteria. That infection may have been a result of this contact or even before from exposure to another TB patient



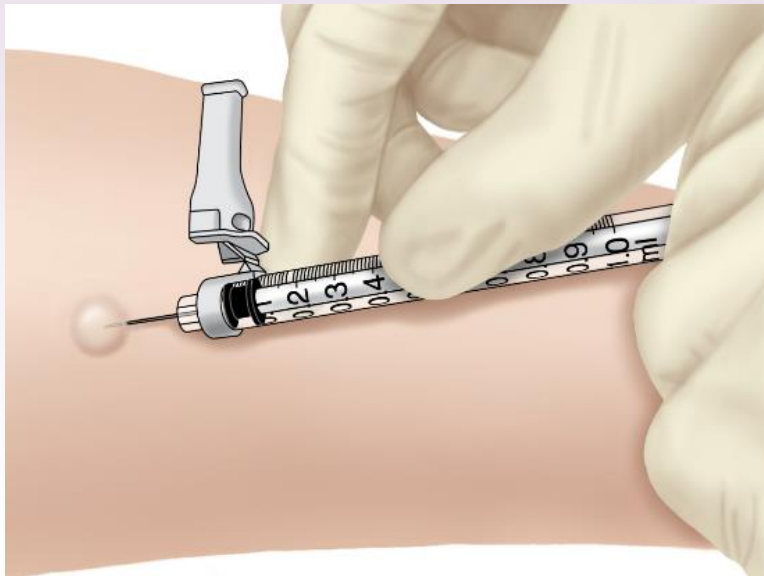
Negative blood test: A person is unlikely to have been infected and have either latent TB infection or TB disease



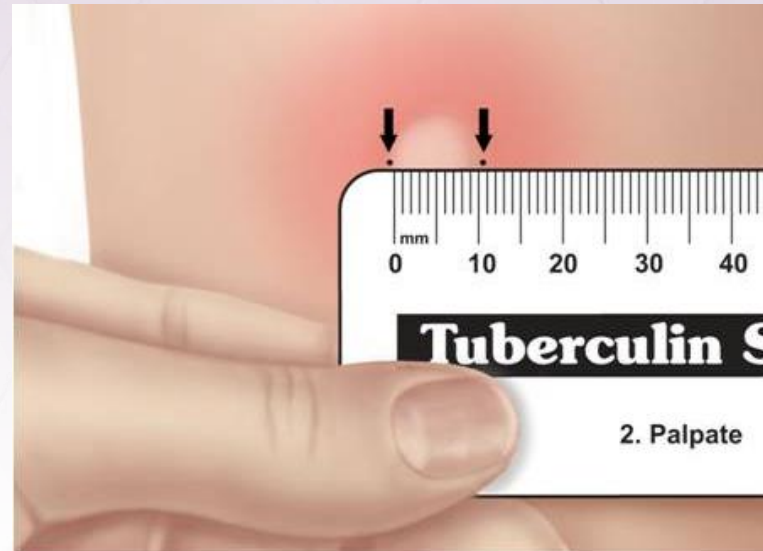
TB Skin Test

The TB skin test, also called the Mantoux tuberculin skin test (TST), requires two visits with a healthcare provider

On the **first visit**, a test is **placed**.



On the **second visit**, the test is **read**.



TB Blood Tests Are Preferred for People Who have Received the TB Vaccine (BCG)

- There is a TB vaccine (BCG) which is given newborns in countries with a lot of TB
 - TB vaccine is not given in the US
- Having received the TB vaccine may make the TB skin test hard to interpret
- The TB vaccine does not affect TB blood test results
- TB blood tests give more accurate results in people who have received the TB vaccine



Treatment for Latent TB Infection Can Prevent Progressing to TB Disease

- TB bacteria in a person with latent TB infection are inactive, so the person does not feel sick
 - Those TB bacteria can become active, multiply, and make the person sick with TB disease
 - About 10% of people with latent TB infection and a normal immune system will someday progress to TB disease
- People with latent TB infection
 - Should take medicine to prevent progressing to TB disease, even though they don't feel sick



LTBI and TB Disease are Treatable

Compared to treatment for TB disease, treatment for LTBI is:



Shorter.



Less costly.



Has fewer side effects.



Resources



CDC TB website:

www.cdc.gov/tb/



State & Local TB Control Offices:

www.cdc.gov/tb/links/tboffices.htm



Find TB Resources:

<https://findtbresources.cdc.gov>



Facebook:

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Twitter:

www.twitter.com/cdc_tb

