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Tuberculosis

Tuberculosis (TB) is caused by germs (bacteria) that are spread through the air. TB usually affects the lungs. But it can also affect other parts of the body such as the brain, kidneys, or spine. Not everyone infected with TB bacteria gets sick. There are two types of TB infection: latent TB infection and active disease.

Latent Tuberculosis Infection

Most people who become infected with TB germs are able to fight them. The TB germs remain alive but under control. These people have latent TB infection. They are not sick, because the TB germs aren't active. People with latent TB infection:

- Don't have TB disease
- Don't have symptoms
- Can't spread the bacteria to others
- Can be treated to prevent them from developing TB disease

Tuberculosis Disease

TB germs are active in TB disease. They grow and attack the body. This usually happens in the lungs. They can actually damage the lung. Active TB germs in the lungs can be passed to others. The germs get into the air when an infected person coughs or sneezes. Other people may breathe in these germs and become infected.

A person with TB disease:

- Has symptoms (see sidebar)
- Usually has a positive TB skin test or TB blood test
- May have an abnormal chest x-ray or positive sputum smear or culture
- Needs to receive treatment with special medicines just for TB

Risk for Tuberculosis Disease

Many people with latent TB infection never develop TB disease. But some people aren't able to fight the TB germs. The germs become active and cause TB disease. People have a higher chance of getting TB disease if they¹:

- Have HIV infection
- Were infected with TB germs in the last 2 years
- Are a child younger than 5 years of age



Tuberculosis Disease Is Not Spread By:

- Shaking hands
- Sharing food or drink
- Touching bed linens or toilet seats
- Sharing toothbrushes
- Kissing

Symptoms of Tuberculosis Disease

Most people with TB disease have 1 or more of these general symptoms:

- Feeling weak or tired
- Weight loss
- Loss of appetite
- Chills or fever
- Night sweats

Symptoms of TB disease in the lungs include:

- Coughing for 3 weeks or longer
- Chest pain
- Coughing up blood

Sometimes TB affects other parts of the body. In these cases, the symptoms depend on where the infection is.

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- Are elderly
- Take some types of medications
- Have other health problems that make it hard for the body to fight disease (eg, diabetes and certain types of cancer)
- Are underweight
- Smoke cigarettes
- Abuse alcohol and/or drugs

People Who Should Get Tested

Doctors may order a TB test for people listed above. They may also order a TB test for people who have a greater risk of being infected. This includes people who²:

- Have had close contact with someone who has TB disease
- Have symptoms of TB disease
- Are from a country where TB disease is very common^a
- Live or work where TB disease is more common (eg, homeless shelter, jail, nursing home)
- Are in healthcare and work closely with those who are at increased risk of TB disease
- Are infants, children, or adolescents exposed to adults who are at increased risk of TB

^a Includes most countries in Latin America, the Caribbean, Africa, Asia, Eastern Europe, and Russia.

Tuberculosis Testing

Two kinds of tests are used: the TB skin test and the TB blood test. In the TB skin test, a small amount of test fluid is injected into the skin on the lower part of your arm. You must revisit a trained healthcare worker 2 to 3 days later. He/she will 'read' the test by looking for a small bump on your arm. It's a sign of a positive reaction.

A TB blood test uses a blood sample. It measures your immune system's reaction to TB germs. No return visit is needed.

Both tests can detect latent TB infection and active disease. A positive result means TB germs may be present. Further testing is needed to know for sure. A negative result means that TB germs are probably *not* present. But some people with TB might have a negative result. This is true with either test. Neither test can be used to:

- Tell the difference between latent TB infection and TB disease
- Tell if a person will develop TB disease

What You Can Do

If you think you may have latent TB infection or TB disease, contact your doctor. You should also contact your doctor if you were exposed to someone with TB disease. Together you can discuss your options for:

- Testing
- Treatment, if necessary

References

1. Morbidity and Mortality Weekly Report. Updated guidelines for using interferon gamma release assays to detect *Mycobacterium tuberculosis* infection—United States, 2010. cdc.gov/mmwr/PDF/rr/rr5905.pdf. Published June 2010. Accessed October 20, 2015.
2. Centers for Disease Control and Prevention. Questions and answers about tuberculosis 2014. cdc.gov/tb/publications/faqs/pdfs/qa.pdf. Accessed October 20, 2015.