

FactSheet

Para Su Información

Tuberculosis (TB)

What is Tuberculosis (TB)?

TB is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs. But TB bacteria can attack any part of the body such as the kidney, spine, and brain. If not treated properly, TB disease can be fatal.

What are symptoms of TB?

Symptoms depend on where in the body the TB bacteria are growing. TB bacteria usually grow in the lungs. TB in the lungs may cause symptoms such as:

- A bad cough that lasts two weeks or longer.
- Chest Pain
- Coughing up blood or sputum (phlegm from deep inside the lungs)

Other symptoms of active TB disease are:

- Weakness or fatigue
- Weight loss
- No appetite
- Chills
- Fever
- Sweating at night

How do they test for TB?

The TB skin test is used to find out if you have TB infection. A small amount of testing fluid is injected just under the skin on the under side of the forearm. After 2 or 3 days, you must return to have your skin test read by a health care worker to determine if it was positive or negative. A positive result usually means that you have been infected by someone with active TB disease. If you miss the skin reading, the entire test will have to be given again.

The QuantiFERON®-TB Gold test (QFT-G) is a whole-blood test to aid in diagnosing *Mycobacterium tuberculosis* infection, including latent tuberculosis infection (LTBI) and tuberculosis (TB) disease.

What if I test positive for TB?

If you have a positive reaction to the TB test, the health district will schedule a chest x-ray. A test of the phlegm you cough up may be required after your X-rays are reviewed.

If you have latent TB infection, you may need to take medicine to keep from developing active TB disease.

Who should get tested for TB?

You should get tested for TB if you have any of the following risk factors:

- You have spent time with a person who has, or is suspected to have, active TB disease.
- You have HIV infection or another condition that puts you at high risk for active TB disease.
- You think you might have active TB disease.
- You are from a place where active TB disease is very common (Latin America, Caribbean, Africa, Asia, Eastern Europe and Russia).
- You live or spend time in homeless shelters, migrant farm camps, prison or jail, and some nursing homes.
- You inject illegal drugs.

If you have any of the risk factors and have not been tested for TB, contact your doctor or the TB Clinic at (702) 759-1369.

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How is TB spread?

TB is spread through the air from one person to another. The bacteria are put into the air when a person with active TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

When a person breathes in TB bacteria, the bacteria can settle in the lungs and begin to grow. From there, they can move through the blood to other parts of the body, such as the kidney, spine, and brain.

TB in the lungs or throat can be infectious. This means that the bacteria can be spread to other people. TB in other parts of the body, such as the kidney or spine, is usually not infectious.

People with active TB disease are most likely to spread it to people they spend time with every day, such as family members, friends and coworkers.

People with active TB disease can be treated and cured if they seek medical help. Even better, people with latent TB infection can take medicine so that they will not develop active TB disease.

What is latent TB infection?

In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. The bacteria become inactive, but they remain alive in the body and can become active later. This is called latent TB infection.

People with latent TB infection:

- Have no symptoms
- Don't feel sick
- Can't spread it to others
- Usually have a positive skin test reaction
- Can develop active TB disease if they do not receive treatment for latent TB infection

Many people who have latent TB infection never develop active TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have weak immune systems, the bacteria become active and cause TB disease.

What is active TB disease?

TB bacteria become active if the immune system can't stop them from growing. The active bacteria begin to multiply in the body and cause active TB disease. The bacteria attack the body and destroy tissue. If this occurs in the lungs, the bacteria can actually create a hole in the lung.

Some people develop active TB disease soon after becoming infected, before their immune system can fight the TB bacteria. Other people may get sick later, when their immune system becomes weak for another reason.

Babies and young children often have weak immune systems. People infected with HIV have very weak immune systems. Other people can have weak immune systems, too, especially people with any of these conditions:

- Substance abuse
- Diabetes mellitus
- Silicosis
- Cancer of the head or neck
- Leukemia or Hodgkin's disease
- Severe kidney disease
- Low body weight
- Certain medical treatments (such as corticosteroid treatment or organ transplants)
- Specialized treatment for rheumatoid arthritis or Crohn's disease.

How is active TB disease treated?

Active TB can almost always be cured with medicine, but the medicine must be taken as directed or you risk the bacteria becoming resistant to the medicine. Several medications are used at the same time because there are so many TB bacteria to be killed. TB bacteria die very slowly; it takes at least 6 months for the medicine to kill all of the TB bacteria.

You will probably start feeling better after only a few weeks of treatment. However, the TB bacteria are still alive in your body and if you stop taking the medicine, you will get sick again. You must continue to take your medicine until all the TB bacteria are dead, and you are symptom-free.

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What if I have active TB disease of the lungs or throat?

If you have active TB disease of the lungs or throat, you are probably infectious. You will need to stay home from work or school so you don't spread TB bacteria to other people. When people are in your home, you will need to wear a mask over your mouth and nose to prevent spreading the disease.

After taking the medicine for a few weeks, you will feel better and may no longer be infectious to others. A TB Clinic nurse will tell you when you can return to work or school or visit with friends.

What is multidrug-resistant tuberculosis (MDR TB)?

Multidrug-resistant TB (MDR TB) is TB that is resistant to at least two of the best drugs used to treat TB, isoniazid and rifampicin. These drugs are considered first-line drugs and are used to treat most people with TB disease.

What is extensively drug resistant tuberculosis (XDR TB)?

Extensively drug resistant TB (XDR TB) is a rare type of MDR TB. XDR TB is defined as TB that is resistant to isoniazid and rifampin, plus resistant to any fluoroquinolone and at least one of three injectable second-line drugs (i.e., amikacin, kanamycin or capreomycin).

Because XDR TB is resistant to first-line and second-line drugs, patients are left with treatment options that are much less effective. XDR TB is of special concern for people with HIV infection or other conditions that weaken the immune system. These people are more likely to develop TB disease once they are infected, and also have a higher risk of death once they develop TB.

How does drug resistance happen?

Resistance to anti-TB drugs can occur when these drugs are misused or mismanaged. Examples include when patients do not complete their full course of treatment; when health care providers prescribe the wrong treatment, the wrong dose or length of time for taking the drugs; when the supply of drugs is not always available; or when the drugs are of poor quality.

How can MDR TB be prevented?

The most important way to prevent the spread of MDR TB is to take all medications exactly as prescribed. Never miss a dose or stop treatment early. Tell your doctor if you have trouble taking the medications. If you plan to travel, make sure you have enough medicine to last while away.

Health care providers can help prevent MDR TB by quickly diagnosing cases, following recommended treatment guidelines, monitoring patients' response to treatment, and making sure therapy is completed.

Another way to prevent getting MDR TB is to avoid exposure to known MDR TB patients in closed or crowded places such as hospitals, prisons or homeless shelters. If you work in a health care settings where TB patients are likely to be seen, consult infection control or occupational health experts. Ask about administrative and environmental procedures for preventing exposure to TB. Once those procedures are implemented, additional measures could include using personal respiratory protective devices.

What is directly observed therapy (DOT)?

DOT is a way of helping patients take their medicine for TB. If you get DOT, you will meet with a health care worker every day or several times a week at a place you both agree on, such as the TB clinic, your home or work, or another convenient location. You will take your medicine while the health care worker watches.

Where can I get more information?

The Tuberculosis Treatment & Control Clinic is located in the northeast parking lot of the Ravenholt Public Health Center, 625 Shadow Lane, Las Vegas. Appointments are highly recommended and can be scheduled by calling (702) 759-1370.



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Updated 02-11