# The Facts About Tuberculosis

Tuberculosis (TB) is an infectious disease caused by the organism mycobacterium tuberculosis. It typically affects the lungs, but may also affect other parts of the body such as the kidneys, bones, or the brain. TB can be spread by infected people who release the bacteria into the air on tiny, invisible droplets by coughing, laughing, sneezing, singing, or speaking. It can also be spread by infected tissue during autopsy, mortuary operations, and certain laboratory work.

Because it can be fatal, diagnosis and treatment of TB is not only important for the health of the individual, it is also important for preventing the spread of TB.

## WHO IS AT RISK?

Anyone can be exposed to TB. However, most people infected with TB will never develop active TB disease because the body’s immune system keeps the bacteria under control and inactive. Certain work situations are at higher risk for exposure to TB such as clinics, hospitals, and settings in which home-based health care and emergency medical services are provided, nursing homes, correctional facilities, homeless shelters, drug treatment centers, and other places that serve clients who are at risk for being infected with TB. Also at risk are people coming from countries with high TB rates and those whose bodies are less able to fight off infections, such as the elderly and people with HIV and AIDS.

## HOW IS TB SPREAD?

TB is spread from person to person through the air. It cannot be spread by touching drinking glasses, bed linens, or doorknobs. When a person with infectious TB disease coughs, sneezes, speaks or sings, microscopic droplets containing mycobacterium tuberculosis may be expelled into the air. The TB droplet travels through the air from person to person most commonly in confined, poorly ventilated spaces. The droplets can remain suspended in the

air for several hours. Another person inhaling the droplets may become infected with TB. The longer the exposure and the more contagious the diseased person, the more likely the exposed person will become infected.

## LATENT TB INFECTION (INACTIVE)

A person who has been exposed to and infected with TB but who has not developed the TB disease has a condition called latent TB infection (LTBI) that has no symptoms.

Latent TB infection means the tuberculosis bacteria is in the body but inactive and cannot be spread to others. Although many people are infected with LTBI, very few develop TB disease at some point in their lives. For people with weakened immune systems, however, the risk of developing TB disease can greatly increase.

## TB DISEASE (ACTIVE)

Persons with “TB disease” have active tuberculosis bacteria multiplying in their body that can be spread to other people. Those who have TB disease almost always have symptoms. Symptoms may include:

- **Persistent cough (3 weeks or longer)**
- **Bloody sputum**
- **Weight loss or loss of appetite**
- **Fever**
- **Night sweats**

TB disease can almost always be cured, but it may be fatal if not treated properly.

## TB TESTING AND DIAGNOSIS

The only way to know if you have TB is to get a TB skin test. A TB skin test will show if the tuberculosis bacteria is in your body. Your health care professional places a small amount of solution under the skin with a needle to see if a reaction occurs. Within 2-3 days after the test, you will be asked to return to the

healthcare professional so that the skin test results can be evaluated. Be sure to keep this appointment.

In some cases, a second test may be done to confirm results.

A “negative” TB skin test result indicates you probably do not have the tuberculosis bacteria in your body.

A “positive” TB skin test result means that you may have been infected with the tuberculosis bacteria and may have either TB infection or TB disease. Additional tests such as chest x-rays will determine which type of TB bacteria you have contracted. After evaluating your test results, your healthcare professional will advise appropriate treatment.

If an employee is diagnosed with TB, the supervisor should ensure that the employee does not return to work until cleared to do so by a healthcare professional/provider.

## TREATMENT FOR LATENT TB INFECTION

TB will not go away on its own. Prescribed medication usually cures TB, but, only if all medication is taken and all instructions are followed—even after symptoms have stopped. This usually keeps TB infection from developing into TB disease. If medication is stopped before using the full prescription, you could develop a form of TB that is resistant to subsequent medication and is harder to cure (drug-resistant TB).

## TREATMENT FOR TB DISEASE

Treatment of TB disease sometimes requires more than one prescribed medication. Personal evaluation and testing will help your health-care professional determine which medications are right for you. Treatment may last many months. Taking all the medication as prescribed normally cures the disease. If medication is stopped before using the full prescription, your symptoms may come back and could develop a form of TB that is resistant to subsequent medication and is harder to cure (drug-resistant TB).

# TB PREVENTION AND CONTROL

So, how can you protect yourself from contracting TB? Tuberculosis is a threat to your health, but you can do something to keep this disease in check. Stay healthy, get plenty of rest, see your doctor for regular checkups, and get periodically tested for TB if you're at risk for exposure. If you have a TB infection or TB disease, go for follow-up exams. Exams help to make sure any medication you use is working and see if the status of your TB has changed. Taking all of your medication as prescribed is the way to cure TB.

TB infection control programs should be established for clinics, hospitals, and settings in which home-based health-care and emergency medical services are provided. Nursing homes, correctional facilities, homeless shelters, drug treatment centers, and other places that serve clients who are at risk for being infected with TB should also develop TB infection control programs. Studies suggest that administrative controls, such as early identification, diagnosis, isolation, and complete TB treatment are the best defenses against exposure. Engineering controls, such as good ventilation with fresh air and personal respiratory protection tailored to the level of a person's risk are also helpful. Additionally, in California we now have the Aerosol Transmissible Diseases (ATD) standard that requires a written program for the control of TB and other ATDs.