

## Tuberculosis in the Workplace

When an employee is diagnosed with tuberculosis (TB), usually the physician or laboratory will report this finding to the health department. If there is concern about TB in the workplace, the employer should call the local or state health department and request assistance.

The health department has many years experience with TB in the workplace and usually provides prompt assistance.

The health department will take the lead and is responsible for assessing the workplace and deciding if TB screening is necessary (often done with a skin test) and who to test. They will work with the employer to notify the employees and take charge of any further investigation. Employees with a positive skin test may be screened further, including use of a chest x-ray. Sputum specimens may be obtained for microscopic examination and for culture and drug sensitivity testing. A "fingerprint" test of employees can isolate the bacteria causing tuberculosis and may be able to determine whether the strains are related among employees, and help assess whether transmission occurred in the workplace.

The rate of multi-drug resistant tuberculosis and extensively drug-resistant tuberculosis is increasing in many areas of the world making both prophylaxis and treatment more difficult. Currently, few precautions are in place for people traveling. The World Health Organization, the United States government and others are seeking to notify and screen passengers when they learn of a fellow passenger with active tuberculosis having been on a recent flight.

### General Tuberculosis Information from the CDC (Last Updated: July 2007)

#### What is TB?

Tuberculosis (TB) is a disease caused by germs that are 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, kidneys or spine. A person with TB can die if they do not receive treatment.

#### What are the symptoms?

The general symptoms of the disease include feelings of sickness or weakness, weight loss, fever, and night sweats.

The symptoms of TB disease of the lungs also include coughing, chest pain, and coughing up blood. Symptoms of TB disease in other parts of the body depend on the area affected.

#### How is tuberculosis spread?

Infectious germs circulate in the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. These germs can stay in the air for several hours depending on the environment. Persons who breathe in the air containing the germs can become infected; this is called latent TB infection.

#### What is the difference between latent TB infection and TB disease?

People with *latent TB infection* have TB germs in their bodies, but they are not sick because the germs are not active. These people do not have symptoms of TB disease and they cannot spread the germs to others. However, they may develop TB disease in the future. They are often prescribed treatment to prevent them from developing TB disease.

People with TB disease are sick from TB germs that are active, meaning that they are multiplying and destroying tissue in their body. They usually have symptoms of TB disease.

People with TB disease of the lungs or throat are capable of spreading germs to others. They are prescribed drugs that can treat TB disease.

**What should I do if I have spent time with someone with latent TB infection?**

A person with latent TB infection cannot spread germs to other people. You do not need to be tested if you have spent time with someone with latent TB infection.

However, if you have spent time with someone with TB disease or someone with symptoms of TB, you should be tested.

**What should I do if I have been exposed to someone with TB disease?**

People with TB disease are most likely to spread the germs to people they spend time with every day, such as family members or coworkers. **If you have been around someone who has TB disease, you should go to your doctor or your local health department for tests.**

**How do you get tested?**

There are two tests that can be used to help detect TB infection. The Mantoux tuberculin skin test is performed by injecting a small amount of fluid (called tuberculin) into the skin in the lower part of the arm. A person given the tuberculin skin test must return within 48 to 72 hours to have a trained health care worker look for a reaction on the arm. A second test is the QuantiFERON®-TB Gold test which measures how the patient's immune system reacts to the germs that cause TB.

**What does a positive tuberculin skin test or QuantiFERON®-TB Gold test mean?**

A positive tuberculin skin test or QuantiFERON®-TB Gold test only tells that a person has been infected with TB germs. It does not tell whether or not the person has progressed to TB disease. Other tests, such as a chest x-ray and a sample of sputum, are needed to see whether the person has TB disease.

**What is Bacille Calmette-Guérin (BCG)?**

BCG is a vaccine for TB disease. It is used in many countries, but it is not generally recommended in the United States. BCG vaccination does not completely prevent people from getting TB. It may also cause a false positive tuberculin skin test. However, persons who have been vaccinated with BCG can be given a tuberculin skin test or QuantiFERON®-TB Gold test.

**Why is latent TB infection treated?**

If you have latent TB infection but not TB disease, your doctor may want you to take a drug to kill the TB germs and prevent you from developing the disease. The decision about taking treatment for latent infection will be based on your chances of developing TB disease. Some people are more likely than others to develop TB disease once they have TB infection. This includes people with HIV infection, persons recently exposed to someone with TB disease, and people with certain medical conditions.

**How is TB disease treated?**

TB disease can be treated by taking several drugs for 6-12 months. It is very important that people who have TB disease finish the medicine and take the drugs exactly as prescribed. If they stop taking the drugs too soon, they can become sick again; if they do not take the drugs correctly, the germs that are still alive may become resistant to those drugs. TB that is resistant to drugs is harder and more expensive to treat. In some situations the staff of the local health department meets regularly with patients who have TB to watch them take their medications. This is called directly observed therapy (DOT) which helps the patient complete treatment in the least amount of time.