

TUBERCULOSIS (TB)

What is tuberculosis?

Tuberculosis, or TB, is an infectious disease caused by a bacteria (germ) called *Mycobacterium tuberculosis*. It generally affects the lungs, but can sometimes cause infections in the lymph nodes, the kidneys, the brain or the spine. The germ may infect anyone, at any age.

The general symptoms of TB disease include feeling sick or weak, and having weight loss, fever, and night sweats. The symptoms of TB of the lungs include coughing, chest pain, and coughing up blood. Other symptoms depend on the part of the body that is affected.

Who gets tuberculosis?

Anyone can get TB infection if they inhale air that contains TB germs. People with TB infection, but not TB disease, have the germ that causes TB in their bodies. They are not sick because the germs are inactive or dormant. They cannot spread the germ to others. However, these people may develop TB disease in the future.

People with TB disease are sick from germs that are active in their body. They usually have symptoms of TB. Usually, people with TB disease of the lungs or throat are capable of spreading the disease to others.

How is tuberculosis spread?

TB is spread from person to person through the air. When people with TB disease of the lungs or throat cough or sneeze, they can put TB germs into the air. Other people who breathe in the air containing these germs can become infected. People with TB disease are most likely to spread it to people they spend time with every day, such as family members or coworkers.

How soon after exposure do symptoms appear?

Most people who are exposed to TB germs will develop a positive tuberculin skin test approximately 2-10 weeks after exposure. People who develop a positive tuberculin skin test are infected with TB germs. Ninety percent of these people will never develop TB disease. The risk for developing active TB disease is highest in the first two years after someone develops a positive tuberculin skin test. Some people are more likely than others to develop TB disease if they become infected with TB: people who are infected with the human immunodeficiency virus (HIV), people who were recently exposed to someone with TB disease, and people with certain medical conditions.

How is tuberculosis diagnosed?

The tuberculin skin test is used for finding out whether a person is infected with the TB germ. It does not tell whether a person has TB disease. For the skin test, a small amount of fluid called tuberculin is injected under the skin in the lower part of the arm. Two or three days later, a health care worker looks for a reaction on the arm. Other tests, such as a chest X-ray and an examination of a sample of phlegm (mucous material from the lungs), are needed to see whether the person has TB disease.

What is the treatment for tuberculosis?

People with TB infection, but not TB disease, may be given a drug (or drugs) to prevent them from developing the disease. The most commonly used drug, isoniazid (INH), is taken for 6-9 months. The decision about the use of preventive therapy is based on the person's age, their chances of developing the disease, and health care provider recommendations.

TB disease can be cured by taking several drugs for 6-9 months. It is very important for people who have TB disease to take all of their drugs exactly as prescribed. If they stop taking the drugs too soon, or if they do not take the drugs correctly, the germs that are alive may become resistant to those drugs. TB that is resistant to drugs is harder to treat. In most situations, local health department staff meet regularly with patients who have TB to help them remember to take their medications. This is called directly observed therapy or DOT.

How can tuberculosis be prevented?

If you think you have been around someone who has TB disease, you should go to your health care provider or local health department for a tuberculin skin test. If you are prescribed drugs for TB infection or TB disease, it is very important that you take them all exactly as prescribed. The best way to prevent TB is to completely treat people who have active disease.

There is a vaccine for TB, the bacille Calmette-Guerin or BCG vaccine. It is used in many countries, but it is not used widely in the United States. BCG vaccination does not completely prevent people from getting TB. (People who have been vaccinated with BCG can be given a tuberculin skin test. Contact your local health department for assistance in interpreting the results of such a test.)

Where can I get more information?

- -Your personal physician or health care provider
- -Your local health department, listed in your telephone directory
- -The Utah Department of Health, Bureau of HIV/AIDS, Tuberculosis & Refugee Health (801) 538-6096

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