
Tuberculosis (TB)

Description: TB is an infectious disease caused by a bacterium called *Mycobacterium tuberculosis* complex. TB usually attacks the lungs, but can attack almost any part of the body. It is important to understand the difference between TB infection and TB disease.

1. TB infection (latent TB infection) means that a person has the TB bacteria in his body, but is not sick and has no symptoms. They cannot spread TB to others.
2. Active TB disease means the person is sick and may have any or all of the following symptoms: a cough that will not go away, feeling tired all the time, unexplained weight loss, loss of appetite, fever, coughing up blood and night sweats. Children do not always have the same symptoms as adults and are frequently diagnosed with X-rays and laboratory testing.

Latent TB Infection: It is estimated that 10-15 million people in the United States are infected with *Mycobacteria tuberculosis*. This means the TB germs are in the body, but the immune system is keeping the bacteria under control. The only way to detect TB infection in persons who do not have active TB disease is with the TB skin test. This test is administered by injecting a small amount of testing solution between the layers of the skin, usually on the forearm. A trained health care worker will read the test in 48-72 hours. If there is a firm swelling around the injection site, the swelling is measured to determine if the test is positive. If the test is positive, further testing (usually a chest X-ray) is done to make sure active disease is not present.

A person with latent TB infection can take medicine to prevent the development of active tuberculosis. A medicine called isoniazid is usually prescribed for nine-12 months. Because of their age, infants and young children with latent TB infection are known to have been infected recently and are at a high risk for progressing to TB disease and should be evaluated for treatment regardless of skin test results.

A person diagnosed with latent TB infection cannot spread the infection to others, and poses no immediate risk to the children or co-workers.

Active TB Disease: A person with active TB disease will usually have X-ray, laboratory tests and a thorough medical history. If the person is infectious (able to spread the disease to others) specific procedures must be followed to ensure that others do not become infected.

How it is Spread: It is spread person to person through the air. When a person with TB coughs or sneezes, respiratory secretions are expelled into the air and can remain there for several hours. Transmission occurs when another person inhales air containing these droplets. Touching toys, dishes, floors or furniture cannot spread TB.

Incubation: 2-12 weeks is needed after a person is infected with the TB bacillus before the infected person will react positively to the TB skin test. After this initial infection, the risk of progressing to active disease is greatest during the two years following infection. In infants, TB is most likely to disseminate. Therefore, prompt and vigorous treatment should be started as soon as the diagnosis is suspected.

How Long Can a Person Pass the Infection to Others? As long as live organisms are present in the respiratory secretions.

Responsibilities of Parents and Caregivers:

- Notify the local health department. (See the ODH Communicable Disease Chart)
- Exclude a person with TB until the TB authority approves that the person is safe to return to the child care setting.
- Consult with the local health department about the need for and length of precautions about respiratory secretions.
- Persons who are beginning work as a child care provider should have a TB skin test. (See the section on immunizations for information on TB screening.)
- Well children should not be kept out of a child care if they only have a positive skin test result.

Control:

- In the United States, TB testing should be done only in groups for which rates of TB are higher than for the general population. These groups include foreign-born persons from areas that have high rates of TB and some medically underserved, low-income populations. However, overall TB infection in United States-born children under 5 years of age is rare. Therefore, TB skin testing of all children in child care centers is not useful.

Some programs (e.g., Head Start) require children to have a TB skin test before they can attend. A child with a positive TB skin test should be seen by a doctor to rule out active disease and to be evaluated for medication to prevent active tuberculosis.

Treatment: Active TB disease is treated with several medications, which must be taken for a minimum of six months. Usually a person will become non-infectious after several weeks of treatment and may resume normal activities. The physician and the local TB authority must determine when a person is able to return to the facility.