

# Tuberculosis Disease

Version 2 – April 2013

## What is tuberculosis (TB)?

Tuberculosis (TB) is a bacterial infection that can affect almost any part of the body. TB is most common in the lungs, a form called pulmonary tuberculosis.

TB is well-controlled in Queensland. However, TB still exists in all countries, so new cases do occur. TB can be a serious disease if it is not diagnosed and treated properly. It can be cured by medications if taken as prescribed by your doctor.

## How is TB spread?

TB is spread by bacteria in tiny airborne droplets that can be inhaled when someone with active TB coughs, sneezes, laughs or speaks. TB is not spread by touching objects, so using separate household items (such as cutlery, glasses, or sheets) is not needed. TB does not run in families. It can affect people of all ages and any ethnic origin.

## How does the body fight TB?

A healthy immune system may kill TB immediately. If the body does not overcome the bacteria, they usually lodge in the lungs, but sometimes spread to other parts of the body. As soon as TB reaches the lungs, the body begins to fight it. Usually the fight is successful, and the immune system is able to stop the bacteria from spreading.

However, for some people, TB may develop. TB that may have been dormant can reactivate years later, and the infection can spread to different parts of the body. Healed infections can also become active again. This can happen when the body's defences are weakened, such as during periods of stress, acute viral infections, HIV infection, illnesses such as diabetes, or immunosuppressive therapy for cancer or other illnesses requiring steroids, radiotherapy or cytotoxic medication. If this happens, TB treatment is crucial.

## What are the warning signs of TB?

TB rarely begins with striking symptoms, and sometimes the disease can progress for weeks or months before TB is suspected. Ongoing symptoms such as a cough that lasts for more than two to three weeks, as well as blood-stained sputum, often feature in TB. Other symptoms may include unexplained weight loss and fatigue, night sweats, recurring pains in the chest, or pain and swelling in the affected areas when TB is outside the lungs. These symptoms may not be due to TB, but should be a warning to see a doctor.

## How is TB diagnosed?

Tests for TB may include a medical history, physical examination, tuberculin skin test, chest x-ray and sputum test. Sputum tests are sent to the laboratory and may take several weeks, because TB is usually slow growing.

The tuberculin skin test (Mantoux test) is mainly used to determine exposure to infection, not TB disease. Sometimes having more than one test at various intervals is needed to determine exposure to infection.

TB in other sites of the body apart from the chest can be found by specific pathology tests, x-rays and/or clinical assessment by a doctor.

## What is the treatment for TB?

TB is treated with medications for at least six months, but they may have to be prescribed for much longer. Once a person is non-infectious, normally soon after the treatment starts, they can usually go back to normal activities, but treatment must continue. Occasionally, some treatment may be required in hospital, and time spent in hospital varies. Often all the treatment can be given outside hospital, but keeping to the treatment plan is important even if symptoms improve. This ensures the disease is cured and stops it from coming back. Uncomplicated TB is easy to treat in the early stages, but it may be more difficult if the disease is advanced.

TB can be cured for most people, provided medication is taken exactly as prescribed without interruption and under the direction of the treating doctor. For further information, please refer to Fact Sheet 2 'Tuberculosis Medication' at [www.health.qld.gov.au/chrsp/tuberculosis/factsheets.asp](http://www.health.qld.gov.au/chrsp/tuberculosis/factsheets.asp)

## How can TB be prevented?

The most important way to prevent TB is to reduce the source of the bacteria by diagnosing and treating people who have TB. Reducing the number of people with infectious TB in the community reduces the chance of exposure for everyone. Public health control of TB depends on:

- screening people for TB infection and active disease
- providing rapid testing
- prescribing appropriate medication
- using physical measures to reduce bacteria in the air
- isolating people who may be highly infectious
- screening healthcare facility workers for TB infection and disease
- promptly investigating and controlling outbreaks.

People with symptoms suggesting TB should quickly seek a medical check-up to ensure early diagnosis. People with TB disease can help prevent infecting others by keeping to their prescribed treatment, even if they are feeling well. People with TB should also use simple hygiene, such as covering their mouth while coughing or sneezing. After completing effective treatment, re-activation of the disease is unusual.

Medications may be prescribed for infected people (without disease) in order to prevent TB disease developing. Treatment for latent TB infection is usually a single medication to be taken regularly, usually for a period of up to six months.

## What screening and follow-up is advised for contacts?

Depending on how infectious the person with TB is, as well as environmental factors and levels of interaction, the family or household, close friends and colleagues should have TB screening as soon as possible. If you think you have been in contact with someone diagnosed with TB, contact your closest TB Control Unit (where screening is free of charge) during office hours, or go to your doctor, even if you feel well.

The screening and follow-up for a TB contact may include:

- tuberculin skin test (Mantoux test)
- Quantiferon TB-Gold Test (blood test)
- chest x-ray
- BCG vaccination
- treatment for latent TB infection.

## Further information

Location	Telephone	Location	Telephone
Metro South Clinical TB Service Princess Alexandra Hospital ( <i>Brisbane</i> )	3176 4166	<i>Cairns</i> TB Control Unit Cairns Base Hospital	4226 6240
<i>Rockhampton</i> TB Control Unit Rockhampton Base Hospital	4920 6211	<i>Townsville</i> TB Control Unit Townsville General Hospital	4433 2860
<i>Toowoomba</i> TB Control Unit Toowoomba Hospital	4616 6446		