

Tuberculosis – including symptoms, treatment and prevention



Tuberculosis (TB) is an infection caused by a bacterium *Mycobacterium tuberculosis*.

TB usually infects the lungs. TB can also infect other parts of the body, including the kidneys, spine and brain. Not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: TB Disease and latent TB infection.



Tuberculosis is a notifiable condition¹

What is the difference between TB Disease and latent TB infection?

TB disease occurs when TB bacteria become active. The active bacteria begin to grow and start to damage the lungs or other parts of the body.

Some people develop TB disease soon after infection, while others develop TB disease later when their immune system becomes weak and they progress from latent TB to TB disease.

Latent TB is when the bacteria in the body are “asleep” and this means the person has the TB bacteria in his/her body but is not sick, does not have symptoms and cannot spread the infection.

Tuberculosis may last for a lifetime as an infection, never developing into disease.

How infection is spread

TB disease

When a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings, the bacteria get into the air. Persons who breathe in the air containing these TB germs can become infected. Early treatment can prevent TB from spreading to other people.

Anyone who has come into contact with a person who has TB of the lungs or throat is at risk for getting TB infection, which may later develop into TB disease. This is more likely to happen in people with weakened immune systems. It is not possible to catch TB disease or latent TB infection from drinking glasses, cutlery, crockery, sheets, clothes or the telephone.

Latent TB infection

People with latent TB infection cannot pass the infection onto other people

Signs and symptoms

TB disease

Symptoms of TB depend on where in the body the TB bacteria is growing.

TB disease in the lungs may cause:

- > a bad cough that lasts longer than two weeks
- > pain in the chest
- > coughing up blood or phlegm.

Other symptoms of TB disease may be:

- > weakness or fatigue
- > weight loss
- > no appetite
- > chills

- > fever
- > sweating at night.

Latent TB infection

Latent TB has no symptoms.

Diagnosis

TB Disease

The diagnosis of TB disease is made with medical assessment and help of various tests.

A chest x-ray is done to look for any damage to the lungs.

It is confirmed when Mycobacterium tuberculosis is grown from sputum and or fluid from the lungs.

TB in other parts of the body is confirmed on growing the bacteria from the site of disease. This could be from urine, gastric fluids, blood or body tissue.

Latent TB infection

Tests to diagnose latent tuberculosis include:

- > Tuberculin skin test (Mantoux test). A small amount of purified protein – taken from dead TB bacteria – is injected under the top layer of the skin, on the forearm. A small lump may form at the injection site over the next few days and you will need to return to your doctor or nurse 3 days later to have this assessed. The size of your lump – measured in millimetres – will indicate whether or not you have a latent TB infection.
- > “Quantiferon” TB Test – a blood test which is an alternative to the skin test.

Sometimes repeat testing is needed to check if TB exposure has caused the infection.

Incubation period

(time between becoming infected and developing symptoms)

Many people with TB infection never develop TB disease.

TB disease

- > Some people develop TB disease soon after becoming infected (within weeks), before their immune system can fight the TB bacteria.

Latent TB

- > People who have latent TB may get sick years later, when their immune system becomes weakened for another reason and they progress from latent TB to TB disease.

Infectious period

(time during which an infected person can infect others)

TB disease

- > People with TB disease in the lungs or throat who have persistent coughing, coughing up blood, breathing problems, or flu-like symptoms can be infectious.
- > People with symptomatic TB in the lungs or throat may be infectious until they have taken their TB medications for at least two weeks.

Latent TB infection

- > People with latent TB infection are not contagious.

Treatment

SA Tuberculosis Services is responsible for monitoring the follow-up and treatment of all cases of TB disease in South Australia.

Clinicians should notify SA Tuberculosis Services of any person suspected of having TB.

TB disease

For active TB, you will be prescribed a combination of targeted antibiotics which you must take for at least 6 months or more, as directed by your doctor.

Latent TB infection

For latent TB infection, your doctor can prescribe tablets to reduce the risk of you developing TB disease.

Prevention

People with TB disease of the lungs or throat must not attend childcare, preschool, school and/or work until treatment has been given and a medical certificate is received from the medical officers treating the TB.

When a person is diagnosed with TB disease, the SA Tuberculosis Service will offer TB screening to family and close contacts. Early and proper treatment prevents TB from spreading to other people. Bacille Calmette-Guerin (BCG) vaccination is an effective vaccine in reducing the risk of TB meningitis and widespread disease in children aged less than 5 years in countries of high TB prevalence. However, it has limited usage in countries where the incidence of TB is low and is not recommended for general use in Australia as its overall usefulness is low.

The vaccine may be recommended for:

- > Aboriginal and Torres Strait Islander babies living in some parts of Australia
- > babies who will be living in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands
- > children, especially those aged under 5, who are travelling to parts of the world where there is TB
- > babies whose parents or carers have TB
- > young children who are exposed to leprosy at home (BCG can also prevent leprosy), which is rare in Australia.

Useful links

SA Health website

<https://sahealth.sa.gov.au>

- > [Immunisation program](#)
- > [Notifiable conditions – what to you know when you have one](#)
- > [SA Tuberculosis](#)

You've Got What

<https://www.sahealth.sa.gov.au/YouveGotWhat>

- > [Exclusions period from childcare, preschool, school and work](#)

1 – In South Australia the law requires doctors and laboratories to report some infections or diseases to SA Health. These infections or diseases are commonly referred to as 'notifiable conditions'.

You've Got What? Tuberculosis

Communicable Disease Control Branch

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The SA Health Disclaimer for this resource is located at www.sahealth.sa.gov.au/youvegotwhat

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This document has been reviewed and endorsed by SQCAG* for consumers and the community – June 2023

*SA Health Safety and Quality Community Advisory Group



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