

# Tuberculosis

## What is tuberculosis?

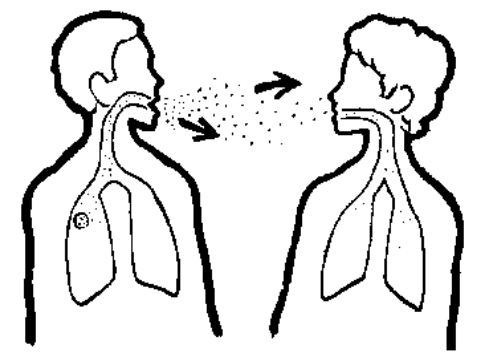
TB is an infectious disease caused by the germ *Mycobacterium tuberculosis*. TB usually affects the lungs but can affect any part of the body

People of all ages, all nationalities and all incomes can get tuberculosis (TB). Each year about 1,500 to 1,600 people in Australia get TB disease. Between 20 and 45 cases are notified in the Northern Territory yearly.

**In almost all instances, TB can be cured.**

## How is it spread?

TB is spread when people who have active untreated TB germs in their lungs or throat, cough, sneeze or speak and send their germs into the air. Other people who breathe these germs into their lungs can become infected. People who breathe in TB germs usually have had close contact with someone who has the disease. TB is not spread by handling objects that the patient has come in contact with e.g. dishes, drinking glasses, sheets or clothing.



## Is TB hereditary?

No. This belief arose because those in closest contact and who share the same air space to cases of TB and most likely to get infected are often family.

## Who does having 'TB infection' mean?

After TB germs enter the body, in most cases, body defences control the germs by building a 'wall' around them, the way a scab forms over a cut. The germs can stay alive inside these walls for years in an 'inactive' or latent state. This is referred to as latent TB infection (LTBI). While TB germs are inactive, they cannot harm the person and **they cannot spread to other people.**

The person is infected but not sick and therefore has no signs or symptoms. They do not have TB. The only way to tell whether the germs are there is by having a Mantoux test (tuberculin skin test) or a special blood test. Inactive TB germs cannot hurt you but, if the body defences are weakened, the 'wall' around the TB germs can become weakened and the germs can multiply and become active making the person sick with TB disease.

## What is TB disease?

TB disease is a serious illness caused by active TB germs. If body defences are weak, it is possible to get TB disease shortly after the germs enter the body. It is also possible for inactive TB germs to become active when body defences are weakened. This may be years later due to ageing, a serious illness, developing diabetes or heavy use of alcohol or drugs. HIV infection, chemotherapy for cancer, steroid medications or other treatments that alter the immune system, such as for severe arthritis, can also weaken the body's defences.

## Signs and symptoms

TB can affect any part of the body but most commonly affects the lungs. People with TB disease may have some or all of the following symptoms:

- persistent cough for more than 2 weeks, (sometimes blood stained sputum)
- fevers
- weight loss
- night sweats
- feeling tired and weak
- loss of appetite
- enlarged glands.

Some people with active TB disease may only have mild symptoms. They may be spreading their germs to others without even knowing that they have TB.

## Can TB patients infect other people?

Only lung or throat TB is infectious. For most patients with lung or throat TB they will stop spreading germs after about 4 weeks of effective treatment. Sputum samples are checked to determine infectiousness. While infectious they remain in hospital to prevent spread of the disease to other people. Once they are no longer infectious they can continue their treatment at home and resume normal activities when they feel well.

Early diagnosis, followed by prompt treatment, helps in preventing spread of the disease.

## What are the tests for TB?

There are a variety of tests, depending on the part of the body affected, but all suspected TB cases should have a chest X-ray.

- A sputum test is requested if a patient has signs and symptoms of TB such as a cough for 2 weeks or greater. A sputum test shows if TB germs are present in the sputum, often first by smear and then their 'identity' is confirmed by culture and further testing. Sometimes it is only the culture weeks later or further molecular tests that makes the diagnosis.
- A chest X-ray can be suggestive of TB and prompts sputum to be collected. Chest X-rays also show the extent of disease and can be followed to show improvement with treatment.
- If patients have disease in certain parts of the body, e.g. lymph nodes, a sample from the tissue will be obtained to look for the TB germ. If TB is suspected in the kidneys urine will be collected to look for TB germs.

## Who should get checked for TB?

- People who have signs and symptoms of TB.
- Recent contacts of people who have active TB disease. This could be a family member, friend or co-worker.
- Those who have a chest X-ray suggestive of active TB.

## Treatment

Most people who have TB will begin treatment by taking at least 4 different types of antibiotics. After several months this may be reduced.

## Is TB curable?

Yes. TB is almost 100% curable.

The TB antibiotics can cure TB if taken for at least 6 months. The tablets are given to the patient by direct supervision usually by a health care worker. The Health Service will provide support to the patient and their family during the treatment.

Sometimes TB germs are resistant to the usual TB antibiotics. When this happens, combinations of other medications are given. Resistant TB is harder to cure and it takes more time to control, but most people with resistant TB can be cured.

## TB screening tests

The Mantoux test or a special TB blood test called an interferon gamma release assay (IGRA) show whether a person has been infected with TB germs. A positive test does not mean that a person has TB disease but means the person has been exposed and reacted to TB germs.

Screening with the Mantoux test (the preferred screening test in the NT) is recommended for:

- contacts of people who have active TB
- people who have lowered immunity due to HIV infection or certain medical conditions
- people who are required to be tested for employment reasons
- students born in high prevalence TB countries as part of a school screening program
- students whose parents were born in high prevalence TB countries as part of a school screening program
- people who are about to undergo organ donation or transplantation
- people travelling to a high-risk TB country to establish a baseline test result.

## Related information

- [Guidelines for the control of Tuberculosis in the Northern Territory](#)
- [Tuberculosis profile page on NT health and resources](#)

## Contact

For more information contact the Public Health Unit's Centre for Disease Control in your region.

The full list of contacts of contacts can be found at [NT Health](#).

Location	Address	Phone	Fax	Email
Darwin	Ground Floor, Building 4 Royal Darwin Hospital Rocklands Drive Tiwi NT 0810	(08) 8922 8044 1800 008 002	(08) 8922 8310	<a href="mailto:CDCSurveillance.DARWIN@nt.gov.au">CDCSurveillance.DARWIN@nt.gov.au</a>
Katherine	O'Keefe House Katherine Hospital Gorge Road Katherine NT 0850	(08) 8973 9049	(08) 8973 9048	<a href="mailto:CDC.Katherine@nt.gov.au">CDC.Katherine@nt.gov.au</a>
Tennant Creek	Schmidt Street Tennant Creek NT 0860	(08) 8962 4259	(08) 8962 4420	<a href="mailto:CDC.Barkly@nt.gov.au">CDC.Barkly@nt.gov.au</a>
Alice Springs	Disease Control Unit Lower Ground Floor Eurilpa House, 25 Todd Street Alice Springs NT 0870	(08) 8951 7540	(08) 8951 7900	<a href="mailto:CDC.alicesprings@nt.gov.au">CDC.alicesprings@nt.gov.au</a>
Nhulunbuy	Corner Mathew Flinders Way and Chesterfield Court Nhulunbuy NT 0880	(08) 8987 0357	(08) 8987 0500	<a href="mailto:CDCGove.DoH@nt.gov.au">CDCGove.DoH@nt.gov.au</a>