Tuberculosis (TB)

Key points

- Tuberculosis (TB) is a disease caused by the bacteria *Mycobacterium tuberculosis*.
- TB most commonly affects a person's lungs, but can also affect other parts of the body. It can cause serious illness.
- TB can be cured with a combination of antibiotics.

How is it spread?

- TB is spread through the air when a person with TB disease of the lungs or throat coughs, sneezes, sings or speaks, sending germs into the air.
- When other people breathe in these germs, they can become infected.
- Most people get TB germs from someone they spend a lot of time with, such as a family member or close friend.
- TB is not spread via household items, such as cutlery, plates, drinking glasses, sheets, clothes or phones, so it is not necessary to disinfect or use separate household items.

What is the difference between TB infection and TB disease?

In most people with TB infection, the body's immune system controls the germs. However the germs may stay alive in a dormant or inactive state. This is called latent TB infection (LTBI).

- While the TB germs are inactive, they cannot do any damage, and a person is not sick.
- For most people, these TB germs will always stay inactive.
- People with latent TB infection are not infectious - they cannot spread TB to others.
- A blood test (interferon gamma release assay - IGRA or QuantiFERON TB Gold-Plus®) or a Tuberculin Skin Test (TST or Mantoux test) can be used to detect latent TB infection.

Active TB disease occurs when TB germs overcome the body’s immune system. Some people may develop TB disease soon after infection, while others develop TB disease many years later when their immune system becomes weakened. Immunity may be affected by ageing, stressful events, drug or alcohol misuse, HIV infection, cancer, or other medical conditions.

- TB disease develops when the dormant TB germs become active and begin to multiply.
- Only about 10 per cent of people with TB infection will ever get TB disease.
- People with active TB disease of the lungs or throat can be infectious to others.
- People with active TB disease in parts of the body other than their lungs or throat (for example, TB in lymph nodes or a bone) are not infectious.
- After two weeks of taking appropriate medication, most people with TB disease will no longer be infectious and can return to normal day-to-day activities.

What are the symptoms?

TB can cause disease in any part of the body, but the lungs are the most common site. People with active TB disease may have some or all of the following symptoms:

- A cough that lasts for more than three weeks, and is not improving
- Coughing up blood-stained sputum
- Fevers and sweating during the night
- Unexplained weight loss or loss of appetite
- Always feeling tired
- Pain or swelling in the affected area (such as a lymph node in the neck or under the jaw).
Who is at risk?
- People who have spent long periods in close contact with a person with infectious TB.
- People who were born, lived, worked or stayed for a long time in an area with a high burden of TB, such as south-east Asia, sub-Saharan Africa and some countries in the Western Pacific.
- Aboriginal and Torres Strait Islander Australians.
- People who have a chronic illness that affects their immune system, including diabetes and HIV.
- People who take medication that affects the immune system, e.g. immunotherapy, corticosteroids or chemotherapy.

How is TB prevented?
- People with infectious TB are kept isolated until they are no longer infectious (usually about two weeks on treatment).
- People diagnosed with latent TB infection may be offered a course of preventive treatment.
- BCG vaccination gives protection against severe forms of TB in young children, and is offered to children under 5 who will be travelling to countries where TB is common; however, BCG vaccine is not routinely given in New South Wales.

How is TB disease diagnosed?
For TB in the lungs:
- A chest x-ray can show whether TB has affected the lungs
- A sputum (or phlegm) test shows whether TB germs are present in coughed-up sputum
- If the person cannot cough up sputum (or phlegm), other tests may be needed.
For TB outside the lungs, tests such as a needle biopsy, wound swab, surgical specimen or urine sample can help to diagnose other types of TB.

How is it treated?
Latent TB infection: the doctor may prescribe a course of tablets (preventive therapy), or follow-up with regular chest x-rays.
TB disease: a doctor will prescribe a combination of antibiotics for at least six months. A nurse will supervise treatment to provide support and education, to check for any side effects, and to ensure treatment is successfully completed.
- People with TB should take all their TB medicines without missing doses or stopping early.
- People with TB can return to normal activities while on treatment when they are no longer infectious.
- People with TB can be cured if they complete their treatment.

What is Multi-Drug Resistant TB (MDR-TB)?
Multi-drug resistant TB (MDR-TB) occurs when TB bacteria are not killed by at least two of the important TB antibiotics (isoniazid and rifampin). Drug resistant TB is spread in the same way as other TB.
- People with MDR-TB require longer antibiotic treatment, for up to 24 months, and sometimes need regular injections (into the vein) for the first 6 to 8 months.
- People with MDR-TB should take all their TB medicines exactly as prescribed until the end of the treatment course, without missing doses or stopping early.

For more information
- Contact your local TB Service or see your family doctor
- A Medicare card or a referral from a doctor is NOT needed to attend a chest clinic.
- All TB investigations and treatments are provided free and confidentially at chest clinics

For further information please call your local Public Health Unit on 1300 066 055 or visit the New South Wales Health website www.health.nsw.gov.au/tuberculosis

Updated May 2019