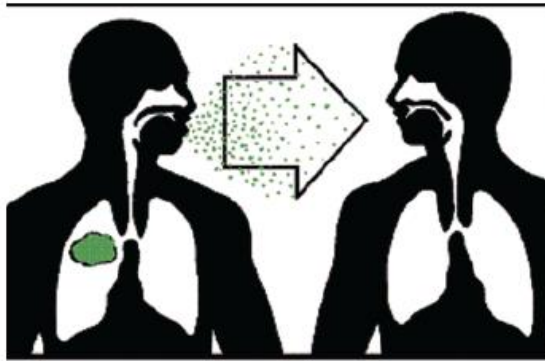


# TUBERCULOSIS



### About TB

Tuberculosis, also known as TB, is a disease caused by bacteria or germs called mycobacterium tuberculosis. The bacteria can attack any part of the body, but usually attack the lungs. TB spreads through the air, which is why it spreads in overcrowded spaces. To get TB, all you have to do is to breathe.

Anyone can be infected with TB, but with the right treatment it can be cured. More than one third of the world's population is infected with TB<sup>2</sup>. Of those infected, one in every 10 will become sick with TB in his or her lifetime<sup>2</sup>. If left untreated, TB can lead to serious illness and in some cases, death. Every sixty seconds, three people die from TB. In 2009, 400 000 South Africans were known to be infected with TB and a further 490 000 were diagnosed with it in that year<sup>1</sup>.

### How is TB spread?

TB is contagious. Like the common cold, it spreads through the air. When infectious people cough, sneeze, talk or spit, they spray TB bacteria into the air. A person needs only to inhale a few of these bacteria to be infected.

### If I have TB, how can I prevent it spreading to others?

If you have been diagnosed with TB, it's important that you try to help prevent the spread of disease by

- taking TB medication as prescribed by your doctor. You must complete the course or this can lead to multidrug resistant TB.
- covering your mouth when you cough.

### Are you at greater risk of developing TB if you have HIV?

If you are HIV positive you are up to 50 times more likely to develop TB than those who are not infected, as your immunity is weaker<sup>2</sup>.

### How do I know if I have TB?

You may not feel ill or show any symptoms if your immune system can keep the bacteria under control. But if your immune system is weakened, the chances of becoming sick are greater. TB can infect any part of the body, but most often it attacks the lungs. Symptoms of TB lung infection include:

- night sweats
- fever
- coughing for more than two weeks
- weight loss
- loss of appetite
- coughing up blood

### What should I do if I think I have TB?

If you think you have TB or have been in contact with someone who has it, see a doctor as soon as possible. Your doctor will advise you on the type of tests you should have, to find out whether or not you have TB.

No screening test exists for TB. Patients are tested if they show symptoms and if they have had contact with someone with TB. If children have had close contact with anyone who has TB, this warrants prevention treatment (prophylaxis) as prescribed by a doctor.

### Why is it important to find out if I have TB?

It's important to find out if you have TB as soon as possible so you can start treatment. If left untreated, TB can damage your lungs, other organs and can even kill you. Each person with symptomatic TB can infect about 10 to 15 people a year.

### How is TB diagnosed?

Many methods are used to diagnose TB, including a chest x-ray or sputum (phelm) examination. Sputum comes from a deep cough from the lungs. Depending on the method, the test results can take anything from 24 hours to three months to process.

### How is TB treated?

In most cases, your doctor will prescribe antibiotics for you to take for at least six months. The exact drugs and length of treatment depend on your overall health, possible drug resistance and the location of the disease in the body.

### Is TB curable?

Yes, with the right treatment, it can be cured. About 36 million people have been cured of TB over the past 15 years through Directly Observed Treatment, Short course (DOTS)<sup>2</sup>. Endorsed by the World Health Organisation, this programme helps to ensure the right drugs are taken at the right time for the full length of treatment. Since the launch of DOTS in 1994, the number of people being cured has increased regularly and up to 8 million TB deaths have been prevented<sup>2</sup>.

### What is Lancet doing to help fight TB?

Lancet is committed to fighting TB by providing rapid TB diagnostic methods, including one endorsed by the WHO. We have upgraded our TB laboratories to ensure safer working environments for staff.

In 2010, Lancet launched the Cepheid GeneXpert MTB/RIF, a best in class rapid TB tests . Endorsed by the WHO, this test can provide an accurate, diagnosis of TB within 24 hours on receipt of the sample at the laboratory . It can also be used to test for MDR-TB.





Lancet has also recently upgraded its TB laboratory facilities to a Pathogen 3 (P3) status. The new lab can reduce workloads and provide doctors with results more quickly, so they can start treatment as soon as possible.

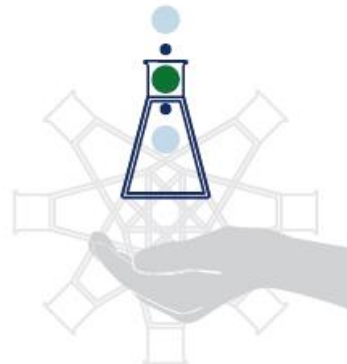
#### What is multi-drug resistant TB or MDR/XDR TB?

TB can become resistant to therapy. When people don't take their prescribed treatment or don't finish their course, this leads to the development of multidrug resistant TB (MDR-TB). MDR-TB takes longer to treat and can only be cured with second-line drugs. These are more expensive and have more side effects<sup>2</sup>.

Extensively drug-resistant TB (XDR-TB) occurs when resistance to second-line drugs develops. XDR-TB is difficult and sometimes impossible to cure<sup>2</sup>. In 2012 the WHO recorded that MDR strains of TB are at their highest levels ever.

#### References:

1. <http://www.who.int/features/factfiles/tuberculosis/en/index.html>
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3. [http://extranet.who.int/sree/Reports?op=Replet&name=%2FWHOHQ%2FSTB\\_TME%2FPublic%2FTBCountryProfile&ISO2=ZA&outpe=html](http://extranet.who.int/sree/Reports?op=Replet&name=%2FWHOHQ%2FSTB_TME%2FPublic%2FTBCountryProfile&ISO2=ZA&outpe=html)
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#### HEAD OFFICE

Lancet Corner, Ground Floor, Cnr Menton and Stanley Roads,  
Richmond, Johannesburg, South-Africa  
(011) 358 0800  
24-hour emergency service

#### PRETORIA MAIN LABORATORY

1st Floor Pencia Building, 509 Pretorius Street, Arcadia,  
South-Africa  
(012) 483 0100

#### DURBAN MAIN LABORATORY

102 Lancet Medical Centre, 102 Ismail Meer Street, Durban,  
South Africa  
(031) 308 6500

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