

[MDR TB a threat to SA](http://www.health24.com/news/Tuberculosis/1-4011,77613.asp)

A rise in multidrug-resistant tuberculosis (MDR TB) is a threat to the country's people and health system, the SA Institute of Race Relations (SAIRR) said on Friday.

* [TB drug-resistance a worry: WHO](http://www.health24.com/news/Tuberculosis/1-4011,77338.asp)
* [A TB germ killer](http://www.health24.com/news/Tuberculosis/1-4011,76717.asp)
* [Sunlight may speed up TB recovery](http://www.health24.com/news/Tuberculosis/1-4011,76450.asp)
* [**More Tuberculosis news**](http://www.health24.com/news/Tuberculosis/1-4011.asp)
* [TB drug could reduce mortality](http://www.health24.com/news/Tuberculosis/1-4011,76894.asp)
* [Screening can miss TB in HIV+](http://www.health24.com/news/Tuberculosis/1-4011,76631.asp)
* [MDR TB at alarming levels](http://www.health24.com/news/Tuberculosis/1-4011,76366.asp)

**Overview**

Tuberculosis (TB) is a chronic infectious disease that usually affects the lungs. TB is mainly spread when someone with TB coughs or sneezes, and someone else breaths in the air-borne bacteria. A person can be infected with the TB organism for years without getting sick or spreading it on to others, but when their immune system weakens for some reason, TB infection can develop into active disease. TB can be cured, but requires rigorous unbroken treatment that lasts for six months – failure to complete the treatment regimen can result in the emergence of drug-resistant strains of TB. As TB is a common opportunistic infection ailing people with HIV, South Africa has a particularly high burden of TB due to its high prevalence of HIV.

* [Description](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_1)
* [Cause](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_3)
* [Course](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_5)
* [When to see a doctor](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_7)
* [Treatment](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_9)
* [Prevalence](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_2)
* [Symptoms](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_4)
* [Risk factors](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_6)
* [Diagnosis](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_8)
* [Prevention](http://www.health24.com/medical/Condition_centres/777-792-3990-3991,11948.asp#art_10)

**Cause**

TB is caused by the bacterium *Mycobacterium tuberculosis*. TB in the lungs or throat can be infectious i.e. the bacteria can be spread to other people. TB in other parts of the body is usually not infectious. TB is spread mainly through the air. When infectious people cough, sneeze, talk, laugh or spit, droplets containing bacteria are sprayed into the air. People nearby may inhale these bacteria and become infected. Bacteria can stay air-borne for a long time, and can remain active in house dust for weeks. However, transmission usually occurs only after substantial exposure to someone with active TB. People with TB disease are most likely to spread it to those they spend time with daily, such as family members and co-workers. You are unlikely to get TB from someone coughing in a public place. You cannot get TB from handshakes, toilet seats, or sharing eating utensils, bedclothes or clothing with people who have TB.

Infection can also be acquired from contact with an infected cow or through drinking contaminated milk. However, this is an extremely rare way of getting TB. Most milk is pasteurized, and dairy herds are usually kept under veterinary control.

**Symptoms**

Symptoms of TB may include the following:

* A cough that starts out dry but later produces sputum (thick liquid from deep inside the lungs) or blood
* Coughing for longer than a month
* Chest pain
* Breathing difficulty e.g. shortness of breath
* Weakness or fatigue
* Loss of weight and appetite
* Chills and fevers (the fever may be low, and may be intermittent)
* Joint pain
* Wheezing
* Rales (additional sounds made to those of normal breathing)
* Excessive sweating, including sweating at night
* Hearing loss
* Diarrhoea
* A persistent lump or lesion
* Clubbing of fingers or toes - the nails become swollen and feel slightly "pulpy".

Some people have mild symptoms or none at all. People may therefore spread bacteria without knowing they have TB.

**Treatment**

**Medicine for Preventive Therapy**

Preventive therapy (PT) against TB involves people at high-risk for infection taking anti-TB drugs to prevent progression to active disease. If you are infected and/or in a high-risk group, you can take medicine to help avoid developing active TB disease. Sometimes people receive PT even with a negative skin test, for example infants, children, and HIV-infected people who have recently spent time with someone with infectious TB disease, as they are at very high risk of developing TB disease soon after infection.

The drug isoniazid, or INH, is usually used for PT. INH kills inactive TB bacteria, and may keep you from developing TB disease if taken as prescribed. Most people take INH for at least six to nine months; children and HIV-infected people for longer.

While taking INH, see your doctor regularly and do not drink alcohol.

If you have a positive tuberculin skin test but have not received PT, you should have routine medical checkups to detect if TB is becoming active, in order to treat it at an early stage. Know the TB disease symptoms, and see a doctor immediately should any develop. It is important to make sure that people do not have active TB before they are given PT. If someone has active TB he or she needs to be treated differently (see below).

**Medicine for Active TB Disease**

People with active TB are usually treated with several anti-TB drugs: this is more effective in killing all the bacteria and preventing them from becoming drug resistant. Daily oral doses are continued for six months. Most commonly used drugs used are:

* Isoniazid (INH)
* Rifampin (RIF)
* Pyrazinamide (PZN)
* Ethambutol (EMB)
* Streptomycin (STR)

The standard treatment regimen involves taking INH, rifampicin, pyrazinamide and ethambutol for two months, and then INH and rifampicin for the next four months.

The drugs listed above sometimes cannot kill atypical TB infections, or drug-resistant strains, and new treatments must be found.

Over 95% of people properly treated for TB are cured. The main reason treatments fail is that people do not take their medications properly. Medicines given to people with TB disease usually stop them from spreading TB bacteria within a few weeks. Most TB patients live at home and can continue normal activities if they take their medicine. TB of the lungs or throat means you are probably infectious and should stay home from work or school. Your doctor will tell you when you can return to work. When you are no longer infectious or feeling sick, you can resume normal activities, but you must continue to take your medication for the prescribed time.