

# Aussies find TB cure

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## Tuberculosis



**SYDNEY:** Scientists here said yesterday they had discovered a drug which could cure tuberculosis at its non-infectious stage and could be the first major breakthrough on the disease in 50 years.

Bacteriologist Nick West said researchers at the Centenary Institute had developed a drug which could essentially combat the disease before it takes hold, potentially saving millions of lives around the world.

"We have investigated a protein that is essential for TB to survive and we have had some success in developing a drug that will inhibit this protein," said West.

"Our goal over the coming months is to find out the full extent of this drug's potential."

West said it would be the first time in history that dormant or asymptomatic, non-infectious TB would be able to be treated, potentially stemming a deadly tide of infection which claimed two million lives every year.

"Unfortunately, the antibiotics we use to fight TB aren't effective against latent TB and can only be used when the disease becomes active," he explained.

"This is a major problem as one out of 10 people who have latent TB will develop the active disease, becoming sick and contagious."

"If we can figure out a way to treat TB when it's in a latent stage, then we could save millions of lives throughout the world," West added.

If successful, the drug would be the first new treatment for TB since 1962, according to the institute.

One third of the world's population, or two billion people, are estimated to be infected with TB, with the disease growing fastest in Southeast Asia.

Lethal multidrug-resistant strains of the disease were becoming a serious threat to global health, infecting almost half a million people in 2008, of whom one-third died, the World Health Organisation warned last week.

Almost half the drug-resistant cases were estimated to have occurred in India and China, the WHO said, with an extensively drug-resistant form, found in 58 countries, "virtually untreatable". — AFP

Some 9.4 million people contracted TB in 2008, and 1.8 million people died of the disease

▶ Caused by bacteria that spreads through air and breathed into lungs

▶ Contagious but curable

Approx. 2 billion people are infected with TB bacteria (one in 10 infected develops active TB)

### Stages

▶ **Infection** — Bacteria is alive but body's immune system prevents it from spreading

Person is not sick, not contagious

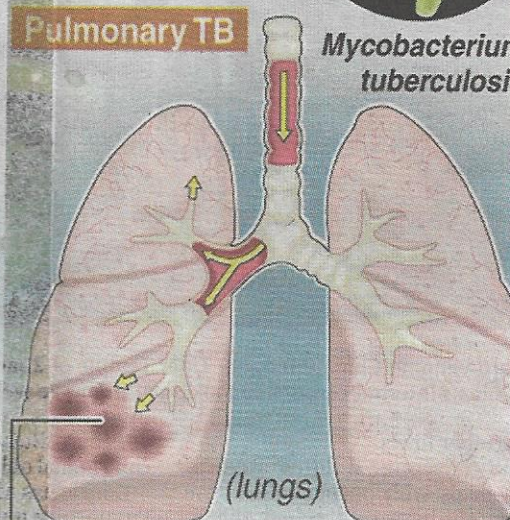
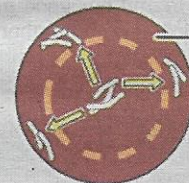
▶ **Active disease** — If immune system is weak, bacteria becomes active and multiplies, damages lung tissues

Person may feel sick, may be contagious

A skin test shows if body is TB-infected



Bacteria



Affected

Normal

### Extrapulmonary TB

▶ Affects the brain, eyes, lymph nodes, throat, spine, bones, skin and kidneys

### Multidrug - resistant TB

▶ Thwarts major antibiotics used to treat TB

▶ Caused mainly by misuse of antibiotics, poor quality of drugs, failure to complete full drug treatment

▶ 440,000 people infected worldwide in 2008, a third of them died