

DIAGNOSIS OF TUBERCULOSIS

For a patient with symptoms suspicious of active tuberculosis (TB) disease, a doctor usually orders chest X-ray examination and sputum tests.

Chest X-Ray examination

Active TB can be detected as abnormal shadows on the chest X-ray film. However, it may be difficult to tell active TB from inactive TB or other causes of abnormal shadows. Follow-up investigations, like sputum smear and culture, are often required.

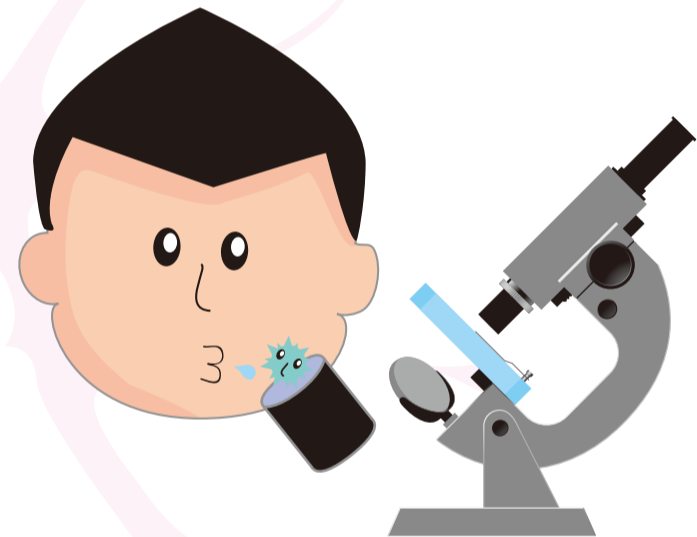


Sputum Tests

Sputum is initially examined under the microscope (sputum smear examination), and then inoculated in culture medium for growth of TB germs (sputum culture).

1. Sputum smear examination

This is a simple and quick laboratory test. Using some special staining technique on a smear of sputum on a glass slide, the TB germ can be seen under the microscope as acid-fast bacilli (AFB). The presence of AFB suggests that the patient has active pulmonary TB, but a negative smear result cannot exclude active TB.



2. Sputum culture

Sputum culture helps confirm active TB disease, but it is only 70-80% sensitive. Sputum culture takes time because the TB germ grows very slowly. A doctor often needs to make a timely clinical decision on the need for anti-TB treatment from clinical and radiographic findings as well as sputum smear results before culture results are available.

Other tests

Sometimes other tests may be required to diagnose TB or exclude other diseases, for example, tuberculin skin testing, bronchoscopic examination, tissue biopsy and computerised tomography scan.

If you have symptoms, please seek medical advice promptly from your doctor.