

Tuberculosis (TB) is an infectious disease usually caused by *Mycobacterium tuberculosis* (MTB) bacteria. Tuberculosis generally affects the lungs, but can also affect other parts of the body. [Most infections show no symptoms, in which case it is known as latent tuberculosis. About 10% of latent infections progress to active disease which, if left untreated, kills about half of those affected. Typical symptoms of active TB are a chronic cough with blood-containing mucus, fever, night sweats, and weight loss. It was historically called consumption due to the weight loss. Infection of other organs can cause a wide range of symptoms. Tuberculosis is spread from one person to the next through the air when people who have active TB in their lungs cough, spit, speak, or sneeze. People with latent TB do not spread the disease. Active infection occurs more often in people with HIV/AIDS and in those who smoke. Diagnosis of active TB is based on chest X-rays, as well as microscopic examination and culture of body fluids. Diagnosis of latent TB relies on the tuberculin skin test or blood tests.

If a tuberculosis infection does become active, it most commonly involves the lungs (in about 90% of cases). Symptoms may include chest pain and a prolonged cough producing sputum. About 25% of people may not have any symptoms (i.e. they remain "asymptomatic"). Occasionally, people may cough up blood in small amounts, and in very rare cases, the infection may erode into the pulmonary artery or a Rasmussen's aneurysm, resulting in massive bleeding. Tuberculosis may become a chronic illness and cause extensive scarring in the upper lobes of the lungs. The upper lung lobes are more frequently affected by tuberculosis than the lower ones. The reason for this difference is not clear. It may be due to either better air flow,[14] or poor lymph drainage within the upper lungs.<sup>1</sup>

In the present book, fifteen typical literatures about pulmonary tuberculosis published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on pulmonary tuberculosis. We hope this book can demonstrate advances in pulmonary tuberculosis as well as give references to the researchers, students and other related people.

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<sup>1</sup> <https://en.wikipedia.org/wiki/tuberculosis>