

INFORMATION SHEET Tuberculosis (TB)

Tuberculosis is an infectious bacterial disease. It appears most frequently as tuberculosis of the lungs, but may also attack other parts of the body such as the lymph nodes, pleura, uro-genital tract, bones and joints or the digestive tract. Like all bacterial infections, tuberculosis can be cured with antibiotic-based treatment. **However, the course of treatment must be strictly consistent and long-term.**

How is tuberculosis of the lungs communicated?

The disease is communicated by persons suffering from open pulmonary tuberculosis who spread fine droplets of TB bacteria in the air around them whenever they cough, sneeze or talk. These droplets can remain airborne for several hours, and thus enter the pulmonary systems of persons in the same room as the tuberculosis sufferer. The degree of infection risk depends on the duration of contact with the sufferer and on whether contact with the infected sufferer took place within an enclosed space. Risk of infection is low when contact is occasional or takes place in sufficiently ventilated areas. Persons with an impaired immune system are at a higher risk of infection.

How long does the disease take to develop from the time of infection?

Tuberculosis has a lengthy incubation period. The first symptoms of the disease may appear around 12 weeks after infection, and the probability that the disease will occur is at its highest 2-3 years after infection. Latent tuberculosis, however, may not break out until decades later. An impaired immune system will enable the bacteria walled up (encapsulated) by the body to regenerate and become active.

How is the disease diagnosed?

Diagnosis is primarily based on chest X-rays, which show up the tissue changes that are typical of tuberculosis infection. A Mendel-Mantoux tuberculin test may be performed if necessary. Tuberculosis bacteria can also be identified by analysing sputum, bronchial secretions or tissue samples.

How is tuberculosis treated?

Treatment comprises a combination of specific antibiotics aimed at preventing the development of antibiotic resistance. Two months' treatment with 4 drugs are followed by a minimum of a further four months' treatment with 2 -3 effective drugs.

Is there a vaccination that protects against tuberculosis?

In Austria all new born babies received a BCG vaccination against tuberculosis until 1990. However, studies showed that this vaccination provided insufficient protection. Children in Central Europe have an extremely low risk of becoming infected with



tuberculosis. General vaccination is not recommended, since even in small children this would not prevent infection, but merely supply protection against serious generalised forms of tuberculosis. Vaccination may be recommended in individual cases for small children travelling to high-risk areas. The BCG vaccination is not recommended for adults as no protective effect could be proven to date. However, after BCG vaccination, the Mendel-Mantoux tuberculin test can no longer be used to prove TB infection.

How can we protect ourselves against tuberculosis?

The probability of becoming infected with tuberculosis depends on the amount and virulence of the bacteria spread by the sufferer in the course of coughing, sneezing or talking. Persons in contact with tuberculosis sufferers in confined, poorly ventilated spaces are exposed to a high risk of infection.

5 – 10% of all persons infected with tuberculosis develop active tuberculosis during the course of their lives. Sufferers with closed pulmonary tuberculosis or tuberculosis of other organs **cannot** communicate the disease.

To minimize the risk of communicating tuberculosis, sufferers and those in contact with them must undergo treatment laid down by the public health system in accordance with statutory tuberculosis regulations. The medical practitioner in charge of treatment is obliged to report the disease to the public health service. The Austrian Tuberculosis Examination and Counselling Office (Tuberkulose- Untersuchungs- und Beratungsstelle) tracks down the patient's contacts and endeavours to locate the source of contagion. Further care / monitoring of the tuberculosis sufferer are carried out in cooperation with the pulmonary disease specialist responsible. The patient is obliged by law to continue treatment until a cure is effected.

The costs of treatment are borne by the Government.

Glossary:

Bronchi, bronchial tubes: Branches of the trachea that lead into the lungs

Immunity: Insensitivity to a disease

Incubation period: Period between the infection with and outbreak of a disease

Mendel-Mantoux Tuberculin Test: Intracutaneous tuberculin test serving to diagnose tuberculosis infections by means of local induration (thickening of skin)

Pleura: Membrane enveloping each lung

Sputum: Mucus from the lungs

Uro-genital tract: Urinary tract and genital organs