

Tuberculosis –

A current topic as well in Germany

Tuberculosis is one of the most common infectious diseases. It is estimated that every year more than 10 million people contract this disease for the first time around the globe, and it causes around 1.5 million deaths annually.

Many people are mainly familiar with tuberculosis from historical works and associate it with images of sanatoriums in the mountains. In Germany the disease has become rare thanks to good health care. Nonetheless, in this country, too, almost 4,000 people are affected by it every year.

The disease

Tuberculosis is a contagious disease which is caused by bacteria. The abbreviation for this disease is TB. The bacteria mainly invade the lungs. Infected individuals exhale germ-containing droplets in their breath – mainly whilst speaking, singing or coughing – which other people may then inhale. However, not everyone who comes into contact with the bacteria becomes sick. The body's own defences fight the pathogens and often render them harmless. Sometimes, the bacteria remain dormant in the body for years. When the immune system is compromised, the bacteria can spread throughout the body. Besides the lungs, they may invade the lymph nodes, bones, the urinary tract or cerebral membranes.

Who falls sick?

The disease breaks out in roughly one in ten people and has to be treated. People in close contact with patients with active tuberculosis and people with a weakened immune system are the ones at highest risk, mainly:

- People living with an HIV infection
- Infants, toddlers and the elderly
- People on long-term medication to suppress their immune system
- People who are drug or alcohol dependent
- Prison inmates

Symptoms

Active TB can develop without the affected person noticing it. It often begins insidiously and symptoms are often non-specific:

- Slight or pronounced cough with or without sputum
- Unintended weight loss
- Fatigue
- Slight temperature
- Night sweats



The symptoms last for weeks. If left untreated, they normally get worse. Because of the associated weight loss, the name given to this disease in the past was “consumption”, meaning it consumed the body.

Tests

If you have symptoms, your doctor will ask detailed questions about pre-existing conditions, medicines, alcohol, drugs and contact with people suffering from tuberculosis. He will then undertake a physical examination. In case of persistent cough, experts recommend a chest x-ray to establish the cause. If tuberculosis is suspected, your medical team will first recommend the following tests:

- Laboratory test to detect pathogens, for example in sputum, body fluids or other tissue
- Chest x-ray or, depending on the affected organ, another imaging test, for instance a CT scan, an MRI or an ultrasound examination
- Blood test

Furthermore, experts recommend offering every tuberculosis patient counselling and an HIV test. If the test is positive, the HIV infection will be treated, too.

At a glance



- Tuberculosis is caused by bacteria. They mostly infect the lungs.
- Often, the body's defences fight the pathogens. If the immune system is compromised, the disease may become active.
- Symptoms include coughing, unintended weight loss, fatigue, a slight temperature or night sweats.
- The tests recommended by experts include an x-ray of the lungs and pathogen detection.
- Tuberculosis normally responds well to treatment with antibiotics. The treatment lasts at least six months.



Tuberculosis must be reported – as must discontinuation of treatment.

Mandatory reporting

Doctors are bound by law to notify tuberculosis requiring treatment to the public health authorities. In the case of active tuberculosis, they will then organise tests for people who have been in close contact with the affected patients. This is called *environmental contact tracing*.

People who have become infected can then receive timely preventive treatment. The goal is to prevent an outbreak and further spread of the disease.

Treatment

In most cases, tuberculosis can be treated successfully. If left untreated, the disease may prove fatal in more than half of all cases. It is more difficult to treat the disease in the case of resistances to medication (see below) but recovery is still possible.

Standard treatment takes at least six months. Affected individuals are prescribed medicines, known as antibiotics, to kill the bacteria. In the first two months, four active ingredients are administered, and then two in the ensuing four months. The first-line active substances to be used are: *isoniazid*, *rifampicin*, *pyrazinamide* and *ethambutol*. Health professionals recommend taking these antibiotics every morning at the same time before eating or drinking anything – if possible 30 minutes before breakfast. If you do not tolerate the antibiotics well, you can also take them after a light, low-fat breakfast. This may make them more digestible.

Treatment-associated problem: Resistances

One problem is that bacteria are becoming increasingly insensitive – *resistant* – to the main medicinal products. *Multi-resistant tuberculosis* (resistance to rifampicin and isoniazid) is more difficult to treat and it is often active for longer. Treatment takes at least 18 months and should only be administered in TB treatment centres.

What you yourself can do

General tips:

- You can protect yourself from infection by keeping your distance from people with a cough. Observe general hygiene rules, too, such as regularly washing your hands.
- If you have a persistent, undiagnosed cough, go and see your doctor.
- Vaccination against tuberculosis is no longer recommended in Germany.

If you have tuberculosis:

- In the beginning you are still contagious despite taking your medicines. You will, therefore, be placed in isolation at home or in a clinic. It's important you wear a face mask that covers your nose and mouth. Only when you are no longer contagious, you will be able to return to your daily life and socialize with other people.
- Take your medicines as prescribed by your doctor – even if you're feeling much better. Otherwise, you could suffer a relapse. A relapse not only means that the disease will last longer but further treatment will also be more difficult.
- Smoking is particularly harmful in the case of pulmonary tuberculosis. If possible, try not to smoke.
- If you are taking the antibiotic ethambutol, you may experience visual disturbances such as disrupted colour vision of red and green, flashes of light or dark spots. If your vision deteriorates during treatment, you must stop taking this medication. It is, therefore, advisable to have eye check-ups every four weeks.
- You can find out more about tuberculosis here: www.dzk-tuberkulose.de.

More information



Sources, methodology and links

The information provided here is based, amongst other things, in the S2k-Guideline "Tuberculosis in adults ([Association of the Scientific Medical Societies] AWMF reg. no. 020-019)" and on recommendations for patients from patients.

Methodology and sources:

→ www.patienten-information.de/kurzinformationen/tuberkulose#methodik

Additional short information on health topics:

→ www.patienten-information.de

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Impressum

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On behalf of:

Bundesärztekammer (BÄK) and
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Email patienteninformation@azq.de

Website www.patienten-information.de
www.azq.de

KBV