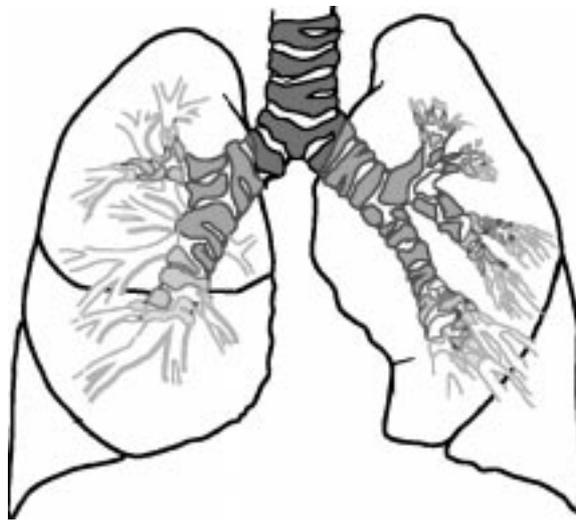




Tuberculosis in my surroundings – what does that mean ?



PUBLIC HEALTH AUTHORITIES
BREMEN





This leaflet wants to give information to all people who have been asked by the public health authorities (Gesundheitsamt) to undergo a special examination.

Tuberculosis is one of the diseases of which the local health authorities quite necessarily have to be informed.

If the public health service has got knowledge of a case of tuberculosis, they have to ensure the beginning of special therapy. They also have to take care of preventing the disease from being transmitted to other persons.

Therefore the public health services have to identify the source of infection.

The public health services are obliged to investigate if somebody is ill from tuberculosis, even if the disease is merely suspected; they also have to act if a dead person was suspected of having had this disease. The individuals who had close contacts with the ill person will then be asked to undergo a special examination. You are obliged by law to follow this order. The examination is free of charge. Costs of transportation are refunded on demand.

We want to explain to you why the public health service has asked you for an examination. But first we want to give you some information about tuberculosis.



What is tuberculosis?

Tuberculosis is an infectious disease. The cause of tuberculosis is the tubercle bacillus. It was discovered by Robert Koch in 1892. The tubercle bacilli can be transmitted from one person to another. Most commonly an ill person suffering from open lung tuberculosis spreads tiny invisible droplets of mucus containing tubercle bacilli when talking, coughing, spitting or sneezing.



Dr. Robert Koch first discovered tubercle bacilli in 1882

So other people who inhale those droplets by chance can become ill, too, this is called an infectious disease. All people in the surroundings of the ill person can possibly be infected. But an infection with tuberculosis bacteria does not quite necessarily mean manifestation of disease. In Germany only 10 % of all people who have been infected actually get tuberculosis. The other 90 % have a natural resistance which is strong enough to overwhelm the tubercle bacilli. Thereafter the majority of people is more or less immunized for further infection. But if an individual is infected by a large number of tubercle bacilli or if the person's natural resistance proves to be too weak, manifest tuberculous disease can develop. Tuberculosis of the lungs is the usual manifestation of the disease.



In lung tuberculosis initially small infiltrates of inflammation arise which you can see as shadows on the chest radiograph. If no adequate therapy is initiated right now, the inflammation will proceed and the infiltrates will grow. Finally the individual has got an „open“ lung tuberculosis. This means that tubercle bacteria can get to the outside, and there is a risk of infection for other people who live in close contact to the ill person.

It takes a long time of treatment until all tubercle bacteria are completely eradicated although the ill person already feels better after a short time of treatment. In this case medical treatment must not be interrupted; otherwise some tubercle bacilli may survive somewhere in the lung tissue. Even many years later bacteria can be reactivated and multiply again. By way of blood they can reach other parts of the body where they can cause further tuberculous inflammation. The consequences can be tuberculosis of the bones, renal and meningeal tuberculosis as well as intestinal tuberculosis. These are called extrapulmonary tuberculosis.



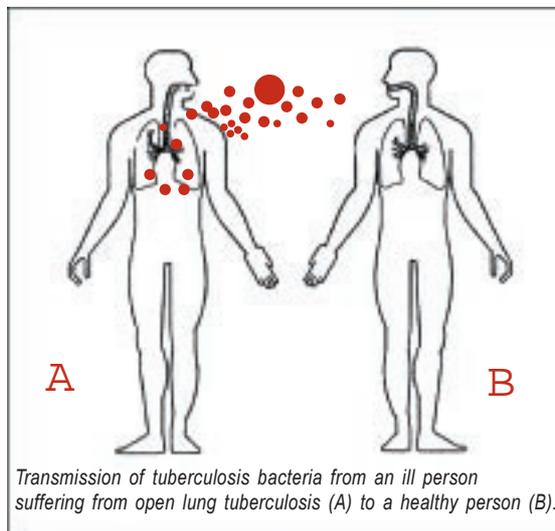
The diagnosis of tuberculosis

In the beginning of the disease symptoms usually are not remarkable or characteristic. The following symptoms might occur, but need not occur: cough, fatigue, night sweat, mild fever, shortness of breath, lack of appetite, weight - loss.

Even with extensive disease some patients may never recognize symptoms. Therefore it is very important to examine all people who live or work in close proximity to the ill person even if there are no obvious signs of the disease.

What is a contact person ?

- A contact person is everybody who lives in the family or in the same household.
- At work colleagues who work in the same room are contact persons too. The contact to workers in a distant part of a large working hall is regarded to be of no importance.
- A contact is close if people are often together in their leisure time, at sports or in the same lodging.
- If the infected person is a teacher or a student everybody in his surroundings at school, at the youth hostel or at a holiday camp has to be examined. All teachers and all students are then regarded to be contact persons.





About the risk of getting an infection for contact persons

The probability of getting an infection depends on a variety of circumstances:

- The frequency of contact. Have you been in permanent contact within a family ? Or did you only have occasional contacts within the neighbourhood?
- The number of bacteria that is discharged to the outside by the ill person by talking, coughing or sneezing.
- The exposure time. For how long have you been together with the diseased person ?
- The behaviour of the patient. For example did he cough frankly into your face ? Or did he try not to cough when people were around ?
- The natural resistance of the contact person.
- The living - conditions of the contact person. Well nourished people living in good housing conditions have a lower risk.

It depends on each individual case how many people in the surroundings of the patient have to be examined. Also the intervalls of examination have to be planned individually. Depending on the intensity of contact at least two up to five examinations have to be done within weeks or months. You can always be sure of being precisely informed about the examination schedule.

What happens during the examination?

The tuberculin - test.

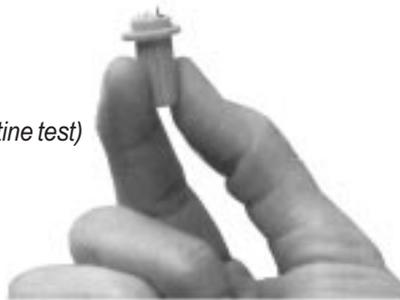
The tuberkulin - test is a simple skin test by which one can see if somebody had been infected with tubercle bacilli. Tuberculin is imprinted into the skin with a kind of punch. The skin test is positive in case of infection. Then you can feel a small nodule on the skin. You must wait three days before you can read the test but you should not wait longer than a week.





A positive tuberculin test does not mean necessarily that the individual is ill with tuberculosis. It only means that once in your life - even many years ago - an infection with tubercle bacilli had occurred.

Tuberculin - test - punch (tine test)



tine test is being imprinted in to the skin of the forearm



Reading of the test not before 72 hours; at last after one week



If the test is positive you have to do x-ray of the lungs.





X - ray of the chest

Chest radiography is very important for the diagnosis of lung tuberculosis; without it one could not find a correct diagnosis. Most often we can see characteristic findings on the chest radiograph; we can also see improvement of lung infiltrates after treatment. We quite simply cannot do without it.

Laboratory examinations

If there is a lung infiltrate on the x - ray film we have to perform some laboratory examinations. If we can find tubercle bacilli in sputum smear, the diagnosis of open lung tuberculosis is proved. Then therapy has to begin immediately.

The aim of all precautions is to interrupt the chain of infection, i.e. the transmission of tuberculosis from an ill person to the healthy people in his surroundings. Therefore we need to find the diagnosis early enough so that we can begin therapy as soon as possible.

Tuberculosis is a disease that we can treat with good success. We usually see complete recovery if we can find the diagnosis at an early stage of disease.

For further information please contact:



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