

## Guidelines for students and educational institutions on tuberculosis screening

In Finland, tuberculosis is rare, but globally it is a common communicable disease.

A student arriving from a country with a high or very high incidence of tuberculosis may be infected with and a spreader of tuberculosis without their knowledge.

- Countries with a high or very high incidence of tuberculosis (Finnish Institute for Health and Welfare THL) (<https://thl.fi/documents/533963/1449651/Maaluettelo+17.3.2022.pdf/164619cb-2596-eaea-c6df-bab7c0fdc609?t=1647958003091>)
- A high tuberculosis incidence is  $\geq 50\text{--}149/100\ 000/\text{y}$  (column 1 in the THL document)
- A very high tuberculosis incidence is  $\geq 150/100\ 000/\text{y}$  (column 2 in the THL document)

Finland conducts tuberculosis screening. In this way tuberculosis can be detected in time, and its spread can be prevented. Diagnosis of possible tuberculosis does not affect the right to study or stay in the country.

The Student Health Service informs students about tuberculosis and related screening, when students begin their studies. It is also important that educational institutions inform and remind students about tuberculosis screening. It is particularly important that educational institutions remind students in the healthcare and social welfare sector about tuberculosis screening before they start their on-the-job-training and when embarking on a student exchange programme.

## Groups covered under the screening programme

### 1. Immigrants

Tuberculosis screening will be conducted as soon as possible after immigration for immigrants who meet the following conditions:

- Country of birth or nationality is a country with a very high incidence of tuberculosis ( $\geq 150$  cases / 100 000 inhabitants / year, column 2 in the THL document)
- Stay in Finland probably over 3 months

If a student fulfills the screening criteria, he or she will have an X-ray of the thorax (unless an X-ray has been carried out recently in another context). For persons exhibiting no symptoms, attending the screening is **voluntary**. If there are grounds to suspect pulmonary tuberculosis, based on the symptoms, a thorax X-ray may also be performed irrespective of the student's will.

For pregnant individuals exhibiting no symptoms, the thorax X-ray will be conducted during their final month of pregnancy.

### 2. Employees and students working in operational social services and health care units as well as any task involving care of children under school age

The screenings will target all students working in operational social services and health care units as well as any task involving care of children under school age (also including early childhood education and care for the elderly)

- if the student is born in a country with a very high incidence of tuberculosis ( $>150/100\ 000/\text{year}$ , column 2 in the THL document)

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- has stayed for at least 12 months, or worked in the health care field for at least 3 months, in a country with a very high incidence of tuberculosis (>150/100 000/year, (column 2 in the THL document)
- participated in the care of tuberculosis patients in any country
- had close contact with a patient with infectious pulmonary tuberculosis

If the employee's tasks include caring for new-born babies, the incidence limit on their country of birth or previous work is set lower, to >50/100 000 (column 1 in the THL document).

**Students may not work in operational social services and health care units or in any task involving care of children under school age without clearance.** A student must make contact with the Student Health Service well in advance of the start of on-the-job training.

For the purpose of the check-up, students belonging to the target group will undergo a health check that includes an interview and, if necessary, a thorax X-ray.

A health check is always carried out at the start of new employment, or on-the-job training, if more than 2 years have passed since the previous screening interview.

A health nurse writes a report based on the interview and possible thorax X-ray. A student will collect the report from the Walk-in counselling desk at his/her own Student Health Service. If a student has been referred for a thorax X-ray, he/she will get the report at the Walk-in counselling desk no earlier than the day following the scan. When collecting the report, the student must bring ID with him/her.

For pregnant individuals exhibiting no symptoms, the thorax X-ray will be conducted during their final month of pregnancy. In all other respects, the procedure is the same as for other students.

### 3. Students going abroad to work or study

These screenings target those heading abroad to work or study in the social services and health care field for a period of at least three months in the following countries:

- countries with very high incidence of TB ( $\geq 150$  cases / 100 000 inhabitants / year, column 2 in the THL document)
- Baltic states, Russia, Belarus, or Romania

Those in the target group will be screened on departure and on arrival. Both of these screenings are compulsory. The student to whom the screenings apply must make their own appointment with student health care services.

#### Instructions for the thorax X-ray

The student contacts the Student Health Service for a chest x-ray referral. The thorax X-rays will be administered at the Hatanpää imaging unit. Students may attend a screening X-ray with no referral or prior appointment at the Hatanpää Hospital imaging unit, Hatanpäänkatu 24, Building D, ground floor; Mon-Fri noon to 3 pm.

Those attending the screening should bring this guideline, as well as identification. The family members of students may also attend the screening X-ray if they have not been imaged through a different screening. The imaging study conducted in the course of tuberculosis screening is always free of charge.

If the thorax X-ray is normal, no notification will be sent. If there are anomalies detected in the X-ray, the

student will be contacted and the necessary follow-up arranged.

Note! Even if a thorax X-ray was clear in the past, or now, the disease can still flare up later. If symptoms such as a persistent cough, weight loss, lack of appetite, intermittent fever, coughing up blood, etc. appear, medical attention must be sought.

Map of the Hatanpää Hospital premises ([https://www.tays.fi/fi-FI/Kartat/Tays\\_Hatanpaa/Tays\\_Hatanpaan\\_aluekartta\(86775\)](https://www.tays.fi/fi-FI/Kartat/Tays_Hatanpaa/Tays_Hatanpaan_aluekartta(86775)))

You can find information on which buses go to Hatanpää Hospital from the Tampere regional transport website ([nysse.fi](http://nysse.fi)).

### **Information about tuberculosis**

What are tuberculosis symptoms like?

The most significant symptom of pulmonary tuberculosis is an extended cough, possibly eventually accompanied by mucus, with a duration of more than three weeks. Yellow, brown, or bloody phlegm may be ejected when coughing. As the illness progresses, shortness of breath and chest pain may set in. A person ill with tuberculosis may exhibit fever, weight loss, and intense sweating during night time. They may lose their appetite and their overall condition may deteriorate. There may also be other symptoms depending on which organs are affected.

What is tuberculosis?

Tuberculosis is no one's fault. Tuberculosis is a communicable disease. It is caused by a bacterium called *Mycobacterium tuberculosis*. Tuberculosis most often presents in the lungs, where a focus of inflammation is formed. From there, the bacteria can spread all over the body, including the lymph nodes, the intestines, the skin, or the central nervous system. Tuberculosis may be present both in the lungs and elsewhere in the body at the same time.

How does tuberculosis infection spread?

Tuberculosis is spread from one human to another by airborne infection. The bacteria are usually spread through the air when a person with respiratory tuberculosis disease speaks, sings, coughs, or sneezes. A person in the same room can then breathe in the bacteria to their own lungs. This way, a person who spends extended amounts of time with an infected patient can themselves be infected. The greatest risk of infection is to family members who live in the same home.

Who can become ill with tuberculosis?

Of those infected with tuberculosis, only one in ten actually fall ill. Most prone to the disease are children under 5 years of age, young adults, the elderly, and people with compromised immune systems.

An adult with no foregoing chronic illnesses will most often fall ill within one or two years of infection. However, it is possible for the illness to manifest even decades after the infection.

Therefore, keep in mind the symptoms of tuberculosis.

Where and how are tuberculosis tests conducted?

Examinations of students are initiated in the student health care system. Further studies take place in a hospital setting. When pulmonary tuberculosis is suspected, a chest X-ray is taken, and samples of

coughed-up phlegm studied. A phlegm sample is subjected to a tuberculosis dye test and cultured. If necessary, a quick test can be used to determine if a phlegm sample contains genetic markers of tuberculosis. Sometimes it may be necessary to conduct an endoscopic study of the bronchi or a CT scan of the lungs. When tuberculosis is being diagnosed in a location other than the lungs, various imaging modalities are employed as appropriate. In addition, a tissue sample or pus sample from the affected organ is sought.

How is tuberculosis treated?

The treatment for tuberculosis is medication. At least four medicines are initially used concurrently. The treatment of ordinary tuberculosis will last at least six months. The prognosis of tuberculosis is good, provided it is diagnosed in time and the treatment carried out diligently over the required period. In Finland, treatment provided for tuberculosis is good quality and free of charge.

[Read more about tuberculosis](https://tuberkuloosi.fi/en/) (https://tuberkuloosi.fi/en/)

[Tuberculosis brochure in various languages](https://www.tays.fi/fi-FI/ohjeet/Infektioiden_torjunta/Mikrobikohtaiset_ohjeet/Tiedote_tuberkuloosista_ja_tuberkuloosit(49979)) (https://www.tays.fi/fi-FI/ohjeet/Infektioiden\_torjunta/Mikrobikohtaiset\_ohjeet/Tiedote\_tuberkuloosista\_ja\_tuberkuloosit(49979))