

Tuberculosis (or BCG) vaccination

This leaflet is about the BCG vaccination. BCG vaccine is offered to your child to protect him or her from tuberculosis.

What is BCG vaccine?

BCG vaccine contains living, weakened tuberculosis bacteria. The bacteria in the vaccine help the child's body develop protection (immunity) against tuberculosis. BCG vaccine protects small children from the serious forms of tuberculosis. These are cerebral meningitis and generalized tuberculosis. With the latter, tuberculosis spreads in small pockets throughout the body.

What is tuberculosis?

Tuberculosis is a serious infectious disease. It is caused by tuberculosis bacteria. Tuberculosis generally manifests itself in the lungs. However, it can also appear in other parts of the body, such as bones, lymph follicles, the brain and the kidneys. Tuberculosis can usually be cured, but recovery takes a long time.

How can you catch tuberculosis?

Tuberculosis is spread via the sputum of a person suffering from tuberculosis. When the infected person coughs, he emits tuberculosis bacteria into the air around him. If a healthy person breathes in the bacteria, he may become infected. Pockets of infection form in his lungs, from which the bacteria can also spread to other parts of the body. Usually tuberculosis only develops if you spend a long time in the company of someone who has the disease. However, small children are at greater risk than others of becoming infected. One in ten people infected with tuberculosis develop the disease.

Why is my child offered the BCG vaccine?

In Finland, the BCG vaccine is offered to all newborn children whose risk of becoming infected is great. A child's risk of developing tuberculosis is increased if

- the child's mother, father, brothers or sisters, or person with whom he/she lives has at one time been diagnosed as having tuberculosis
- the child himself, his/her mother, father, brothers or sisters, or person with whom the child lives was born in a country with high rates of tuberculosis
- the child will, during the first year of his/her life, spend more than one month in a country with high rates of tuberculosis.

Tuberculosis is widespread throughout almost all of Africa and Asia, the greater part of South America, in Russia, in the Baltic countries.

How is the vaccine administered?

From the beginning of September 2006, the BCG vaccine will be given in the left upper arm. The upper arm is the established site for vaccination throughout the world, although previously vaccinations have also been given in the left thigh in Finland.

Are there any adverse effects from the vaccine?

The BCG vaccine produces a pimple at the site of vaccination and often slightly enlarges the lymph nodes in the surrounding area. The pimple bursts and discharges after a few weeks, leaving a scar. This is a normal reaction to the vaccination.

The BCG vaccine which had been in use for a long time in Finland had to be discontinued in 2002, owing to the manufacturer ceasing production. It has been discovered that the new vaccine causes more side effects than the previous product. The vaccine now in use in Finland is, however, the only BCG vaccine available in Europe.

The BCG vaccine has caused abscesses on the groin lymph nodes in 1-2 children out of each 1,000 vaccinated. Lymph node abscesses generally appear 3-7 months after vaccination. This does not demand special treatment nor does it increase the risk of more serious harm. When vaccination is in the upper arm, such rarely occurring lymph node abscesses develop in the armpit or in the hollow above the collar bone.

The more serious adverse effects of BCG vaccination are remote infections arising far from the site of vaccination. These include bone inflammation, joint inflammation, skin infection and generalized BCG infection. These more serious conditions have been diagnosed in 14 children out of each 100,000 vaccinated.

Remote infections are usually treated using tuberculosis medication. A small percentage of joint and bone inflammation caused by BCG vaccination may remain as permanent functional disorders. Remote infections appear on average 14 months after vaccination.

How can I weigh the benefits and disadvantages of BCG vaccination for my child?

A child belonging to the risk group is 10-15 times more likely to contract tuberculosis than other children. For this child there is clearly greater benefit than disadvantage in vaccination. Experts also recommend that children belonging to the risk group are given the BCG vaccine. Vaccination is, however, voluntary.