

Chickenpox

Chickenpox is a very common infectious disease that occurs worldwide and is caused by varicella zoster virus. Most people get chickenpox in childhood. In Slovenia, it affects mainly children up to the age of 9, most often pre-school children. Outbreaks occur mainly in the winter and early spring months, mostly in children attending kindergarten or primary school.

The cause

Varicella Zoster Virus (VZV) is a DNA virus belonging to the herpes virus family.

Incubation period

The incubation period (time from infection to onset of illness) is 10 to 21 days (average 14 to 16 days). It can be shorter in immunocompromised persons and longer, up to 28 days, in persons who have received specific antibodies to chickenpox as a result of exposure.

Transmission

Humans are the only hosts of the virus. The infection is transmitted by infectious droplets, through the air and by close contact. Indirect transmission via freshly contaminated objects with respiratory secretions or skin lesions of the patient is also possible. Infection can also be transmitted from an infected mother to her foetus.

Susceptibility for infection

Most people get the infection in childhood. Those who get chickenpox remain immune for life, but the virus remains dormant in the nervous system, where it can reactivate later in life and cause shingles or herpes zoster.

Symptoms and signs of the disease

Chickenpox is usually a mild illness in otherwise healthy children, recognised by a typical itchy blistering rash that usually first appears on the torso and head and then spreads over the whole body. The rash appears in fits and starts every 1 to 2 days. It may also appear on mucous membranes, genitalia and the conjunctiva of the eye. The illness lasts between 7 and 10 days and may be accompanied by fever and malaise.

Although the course of chickenpox is mostly mild and predictable, about 2% of patients develop complications, such as secondary bacterial infections of the skin and soft tissues, which can leave scars, central nervous system involvement (e.g. brain inflammation), pneumonia, concomitant otitis media, blood infections, and involvement of other organs. New-borns, adults, pregnant women and immunocompromised patients are at higher risk of more severe disease and complications, but due to the high incidence of chickenpox in the preschool years, the highest complication rates are seen in children who are otherwise healthy and have no associated chronic diseases.

About 15% of people who have chickenpox may develop shingles or herpes zoster later in life.

Infectiousness

The disease is highly infectious; 90% of susceptible persons become ill on contact. Patients are infectious 2 days before the rash appears, but are no longer reliably infectious once all the vesicles have developed scabs, which usually occurs 5 days after the rash appears.

Treatment

Treatment is symptomatic. In otherwise healthy people, there is no need for antiviral treatment. If a fever is present, it can be lowered with medicines such as paracetamol. Aspirin is discouraged because it can cause Reye's syndrome. Itching can be relieved by the use of an antihistamine. Washing is recommended, but with lukewarm water and without the use of soaps or shower gels. After washing, do not scrub the body, but simply dab excess water with a towel

Prevention

People who become ill with chickenpox are advised to stay at home until they are no longer infectious (i.e. when all the vesicles have dried up). It is particularly important to avoid pregnant women who have not had chickenpox or have had a chickenpox vaccination, premature or low birth weight new-borns, and anyone with compromised immunity. The best way to prevent chickenpox is vaccination.

Vaccination

The recommended routine vaccination of children (born from February 2024 onwards) against chickenpox started in Slovenia on 1 January 2025. The routine vaccination of children against chickenpox is covered by compulsory health insurance and is carried out with a combined measles, mumps, rubella and chickenpox vaccine (OMRN). Children will receive the first dose of the vaccine between the ages of 11 and 18 months, and the second dose at the age of three years.

In addition to children born from February 2024 onwards, the chickenpox vaccine is recommended for children and adults who have not yet had chickenpox and are in remission from acute leukaemia or for whom high doses of corticosteroids or immunosuppressive drugs are indicated because of kidney disease, severe asthma or other diseases, or before organ transplantation and after haematopoietic stem cell transplantation. Vaccination is also recommended for children whose family members have immunocompromised conditions. The indication for vaccination and the optimal timing of vaccination in these cases is determined by a doctor with the appropriate specialty. Vaccination in these cases is paid for by the compulsory health insurance.

Vaccination is also recommended for all other people who have not yet had chickenpox, especially women of childbearing age. In these cases, vaccination is self-payable.

Chickenpox vaccination is safe and effective. The effectiveness of the vaccination is reflected in a decrease in the incidence of chickenpox, complications, hospitalisations and deaths due to

chickenpox. Data also show a reduced incidence of shingles in vaccinated persons compared to unvaccinated persons.