

Meningococcal meningitis

Meningococcal meningitis is an acute bacterial illness that starts with sudden fever, headache, nausea, frequent vomiting and stiff neck. It is characterized by the appearance of a rash on the skin in the form of tiny haemorrhages (petechiae). The disease used to have a very high mortality rate, which has been significantly reduced with the use of antibiotics, but is still high (8–15%).

The cause

Meningococcal meningitis is a purulent inflammation of the meninges caused by meningococcus (*Neisseria meningitidis*). In some healthy people, it is found in the mucous membranes of the nasopharynx. It is found in 2% of children under 5 years of age and in 25% of adolescents aged 15–19 years. There are several different groups of *Neisseria meningitidis*, with groups A, B and C causing at least 90% of cases. Group A meningococci are the most epidemic, but also C, Y, W135.

Transmission

The transmission of the pathogen is droplet-borne, which means that it is spread by tiny droplets released from the mouth and nose when sneezing, coughing, or when the droplets travel a distance of up to 1 metre. Therefore, very close, prolonged contact with the patient is the most dangerous for transmission. People who have been in contact with the patient's mouth or nose secretions, e.g. using the same cutlery, utensils, glasses, kissing the patient, are at a higher risk of infection (if they have only kissed in a friendly way - mouth to cheek - the likelihood of transmission is very low, but kissing when the oral mucous membranes are in contact is risky for meningococcal transmission). Healthcare personnel who have had close contact with the patient (resuscitation, artificial respiration, intubation without appropriate personal protective equipment, etc.) are also at higher risk of transmission, as are school and kindergarten classmates with whom the patient has had close social contact and close friends, military collectives, and children and adolescents in dormitories - especially those who sleep in the same room. The main source of infection is usually a healthy carrier, who usually does not get sick himself.

Incubation and the course of the disease

The time from infection to outbreak is 2 to 10 days, usually 3 to 4 days. During this time, meningococci enter the blood and circulate throughout the body. They settle in the meninges of the brain, where they cause purulent inflammation. The disease usually starts very rapidly. The patient's status may deteriorate significantly within a few hours. The temperature rises rapidly to 39 °C or more, with severe headache, vomiting stiff neck and chills. Sometimes the patient is unconscious after just a few hours. A rash may appear on the skin in the form of tiny subdermal haemorrhages. Meningococcal sepsis is a particularly severe form that starts very quickly, with the patient's condition worsening by the hour. Young children and adolescents are most susceptible to infection.

Susceptibility for infection

Susceptibility for the disease is low and decreases with age. People with compromised immunity are particularly susceptible.

Treatment

The disease is serious and requires rapid recognition and appropriate antibiotic treatment. In most cases, hospitalisation is necessary.

Prevention

You can protect yourself against the disease (caused by certain groups of meningococcus) by getting vaccinated.

Additional information

- [Information for close contacts of a person with meningococcal meningitis](#)
- [Notification to the public in the event of invasive meningococcal disease](#)
- [Notification on vaccination](#)
- [Rifampicin](#)
- [Ciprofloxacin](#)
- [Notification to the collective of a person with meningococcal meningitis](#)