

Fifth disease (Erythema Infectiosum)

Fifth disease (Erythema Infectiosum) is usually a mild rash. It most often affects young children, schoolchildren and rarely individual adults. Individual cases occur in small outbreaks throughout the year, with epidemics usually every 3 to 7 years, mainly in winter and spring.

The cause

The causative agent of fifth disease is parvovirus B19.

Incubation period

The incubation period (i.e. the time from infection to the appearance of the rash) lasts from 4 to 20 days.

Transmission

Parvovirus B19, is transmitted by droplets from oral and upper respiratory secretions, or directly through close person-to-person contact, especially in the family and in kindergartens and schools. Indirect transmission via contaminated surfaces is also possible. Parvovirus B19 can also be transmitted through blood or blood products. An infected pregnant woman can pass the virus to her foetus. The virus is not transmitted in faeces or urine.

Susceptibility to infection

Anyone who has not yet had the disease is susceptible. In most cases, the infection leaves a lifelong immunity.

Symptoms and signs of the disease

More than a quarter of those infected are asymptomatic. In the rest, symptoms usually appear 4 to 14 days after infection. Initial symptoms of fifth disease are usually mild and include fever, runny nose and headache. After a few days of feeling unwell, fever and sweating (this stage is not evident in all patients), a reddish rash appears on the cheeks (resembling a butterfly or slapped cheeks), which may later spread to the trunk and limbs. This rash is typical of fifth disease and is more common in children. The rash may itch, especially on the soles of the feet. The rash can vary in intensity and usually disappears within 7 to 10 days, but may recur for several weeks. Sufferers may also experience joint pain and swelling, which is more common in adults, especially women. The course of the infection is usually more severe in adults than in children.

Complications

In healthy children and adults, the disease is usually mild and resolves within 1 to 2 weeks. Exceptionally, it can cause serious complications in some people. In people with weakened immune systems or various blood diseases, it can cause anaemia or inflammation of various organs.

About half of pregnant women are immune to parvovirus B19, so they usually do not get sick. The disease is usually mild in non-immune pregnant women and poses a low risk to their foetus. Rarely, however, the foetus may develop severe anaemia, foetal hydrops or die. This occurs in less than 5–10% of all cases of parvovirus B19-infected pregnant women and more often in the first half of pregnancy.

Infectiousness

Patients are most infectious a few days before the rash appears, when the person seems to be getting over a normal cold, and before the rash or joint pain and swelling appear. By the time the rash is clearly evident, they are usually no longer infectious to the surrounding area and can return to work, kindergarten or school. Patients with a weakened immune system may be infectious for longer.

Diagnosis

A doctor can only diagnose fifth disease based on a typical rash on the face. A blood test may be done to check for recent infection or immunity to parvovirus B19 in the past.

Treatment

There are no specific drugs and no vaccine against this disease yet.

Prevention of infection

When coming into contact with a patient, the possibility of infection or its spread can best be reduced by strict personal hygiene measures such as frequent and thorough hand washing with soap and water, using your own cutlery and avoiding close contact with the sick person.

Patients should cover their mouth and nose when coughing or sneezing, avoid touching their eyes, nose or mouth, and stay indoors while they are infected.

A pregnant woman who has symptoms of the disease or who has been in close contact with a patient with fifth disease during the period of her skin disease should consult a gynaecologist.