

Polio (Poliomyelitis)

Polio is a contagious viral disease that affects the nervous system and causes paralysis.

The cause

Polio is caused by three types of poliovirus (1, 2 and 3).

Incubation period

The first signs of disease in the paralytic form most often appear 7–14 days after infection, with a range of 3–35 days also reported.

Transmission

Polioviruses are found in the faeces of infected people. Infection is transmitted by faecal-oral route via dirty hands. The virus enters the body through the mouth and multiplies in the throat and gastrointestinal tract. It then enters the bloodstream and can penetrate certain nerve cells, damaging or destroying them.

Susceptibility for infection

Anyone who has not had the disease or who has not been protected by vaccination is susceptible to polio.

Symptoms and signs of the disease

More than 90% of poliovirus infections are asymptomatic. These children develop immunity to polio and are protected against the disease for life. If the disease develops, it initially manifests as a flu-like condition with fever, headache, sore throat, abdominal pain and soft stools. Paralytic polio starts with mild symptoms and a fever. These signs are followed by severe muscle pain and paralysis of the limbs during the first week of the disease, which can be one- or two-sided. Respiratory muscles may also become paralysed, requiring artificial respiration.

If artificial respiration cannot be provided when the respiratory muscles are paralysed, the disease can be fatal. With insufficient physiotherapy, the paralysis of the limbs may persist.

Infectiousness

People infected with poliovirus are most infectious 7–10 days before and after the onset of symptoms, but polioviruses can still be present in the stool for 3–6 weeks.

Treatment

There is no specific treatment for polio. Supportive treatment at the onset of symptoms includes pain relief and artificial respiration when the patient is in respiratory arrest. Good physiotherapy and sometimes the use of splints or even orthopaedic surgery is needed.

Prevention of infections

The most effective way to prevent polio is to maintain a high vaccination rate in the community. Three doses of vaccine are needed for protection. Polio vaccination is included in the compulsory vaccination programme in Slovenia. This protects young children from the disease already in the first year of life, when they receive three doses of the combined vaccine against diphtheria, tetanus, whooping cough, haemophilus influenzae b, polio and hepatitis B.