

Polio: What you need to know

Poliomyelitis (or polio) is caused by a virus that spreads easily from person to person. The virus invades the nervous system and mainly affects nerves in the spinal cord or brain. In its most severe form, polio can quickly lead to paralysis, trouble breathing, and sometimes death. A full series of vaccinations against polio given in early childhood provides life-long protection.

How does polio spread?

The virus lives in an infected person's throat and intestines. An infected person can spread the virus to others immediately before and up to 2 weeks after symptoms appear.

The virus is transmitted person-to-person mainly by faecal material (which can be an invisible particle) passing into the mouth, or from contaminated water or food. It can also spread through droplets from a sneeze or cough of an infected person.



Symptoms

Initial symptoms are fever, fatigue, headache, vomiting, stiffness of the neck and pain in the limbs. One in 200-1000 infections leads to irreversible paralysis (usually in the legs). Among those paralysed, 5–10% die when their breathing muscles stop working. Polio mainly affects children under 5 years of age. However, anyone of any age who is unvaccinated can contract the disease and suffer serious symptoms.

Prevention through vaccination

Once a person is infected, there is no cure for polio, it can only be prevented through vaccination before the infection happens. There are two vaccines available: oral polio vaccine and inactivated polio vaccine. Both are effective, safe, and used globally, to ensure the best possible protection to populations worldwide.

The first dose of polio vaccine is given in the first weeks of a child's life. Each additional dose in this primary series further strengthens a child's immunity against polio. Booster doses are given in the following years to sustain this high level of protection. Completing the full schedule of vaccinations according to national recommendations is essential to ensure continuous and life-long protection against the disease.



Is polio still a threat?

In the late 19th and early 20th centuries, frequent epidemics made polio one of the most feared diseases in the world. Thanks to vaccination and improved sanitary conditions polio has been largely controlled worldwide. The WHO European Region has been free of endemic transmission of wild poliovirus since 2002. Only one of the three types of wild poliovirus remains in the world, and it is circulating in only two countries (Afghanistan and Pakistan). However, circulating vaccine-derived

polioviruses have been detected in sewage and in people in several countries in recent years, including in the WHO European Region.

Viruses easily cross over country borders, which means that until polio is eradicated globally in all its forms, it remains a threat to the unvaccinated in every country. If a population is fully immunized against polio, it will be protected against the spread of both wild and vaccine-derived strains of poliovirus.

Eradication

Once polio is eradicated, the world can celebrate the delivery of a major global public good that will benefit all people equally, no matter where they live. Success will mean that no child or adult will ever again suffer the terrible effects of lifelong paralysis or death from polio. To reach this goal immunization programmes everywhere must continue to reach all children with life-saving polio vaccines.

