

Key aspects briefly summarized

- Polio is a vaccine-preventable viral disease of the nervous system that is acquired mainly through the consumption of food or water contaminated by feces.
- The infection with the polio virus can affect children and adults and may lead to permanent limb or respiratory muscle paralysis and death.
- An effective, well-tolerated vaccine is available! Check if booster doses are recommended for the travel destination (on top of completed basic vaccination schedule).

Disease

Poliomyelitis, or polio, is a highly infectious viral disease that affects the nervous system and can cause total limb paralysis within a very short time period. People of all ages can be infected through consumption of contaminated food or water. Humans are the only known reservoir of the polio virus. Infection may be mild or even without symptoms. If symptoms of muscular or nervous system complications appear, sequelae (long-term complications) almost always occur. There is no medication to cure polio but the vaccine against polio is highly efficacious.

Occurrence / Risk areas

Polio due to wild types of viruses has been eradicated from most countries. In Afghanistan and Pakistan, however, new infections still occur. In some countries, polio viruses derived from live, oral vaccines are circulating and cause outbreaks of polio disease, especially in countries where vaccination coverage against polio is low in the population.

Transmission

Polio virus is mainly transmitted through the consumption of food or water contaminated by feces. The virus can also be acquired through secretions or saliva of an infected person. In the tropics, transmission occurs year round, whereas in temperate zones, a peak can be seen in summer.

Symptoms

Symptoms most commonly appear 3 to 21 days following exposure. Initial symptoms may include fever, fatigue, headache, vomiting, and diarrhea. Those with mild cases may recover within a week. More serious cases result in stiffness of the neck and pain in the limbs. 1 in 200 infections leads to irreversible limb or respiratory muscle paralysis.

Treatment

There is no cure for polio, treatment targets symptom alleviation only.

Prevention

Regular hand washing after using the bathroom and before eating or preparing food. Avoidance of undercooked or raw food that is potentially contaminated with fecal material.

The most important prevention is vaccination. A very effective and well-tolerated vaccine against polio is available (inactivated (killed) polio vaccine (IPV)), which is part of the basic vaccination schedule during childhood. Combination vaccines (e.g. with diphtheria and tetanus) are also available. After basic vaccination, a booster dose is recommended every 10 years for travel to certain countries (see country page recommendations). WHO recommends a yearly vaccination for residents or long-stay visitors (minimum 4 weeks) in a country with ongoing polio infections or circulating vaccine-derived polio viruses. This recommendation not only targets individual protection, but aims to prevent the international spread of the virus.

Of note

- Check the risk for polio in the region of travel, and ensure vaccination if recommended (see country page recommendations).

Further Information / References

WHO: <https://www.who.int/news-room/fact-sheets/detail/poliomyelitis>

FOPH Switzerland: Swiss vaccination plan:

<https://www.bag.admin.ch/bag/de/home/gesund-leben/gesundheitsfoerderung-und-praevention/impfungen-prophylaxe/schweizerischer-impfplan.html>