

Poliomyelitis (polio)

Poliomyelitis (or polio) is an infection caused by polioviruses. Most infections cause mild disease, however, the virus can affect the cells of the central nervous system causing paralysis. Following the introduction of polio vaccine there has been a dramatic decrease in polio infection in Australia. In 2000, the Western Pacific region including Australia was certified as polio free by the World Health Organization. However, until polio is eradicated from the rest of the world, it is still important for Australia to maintain high vaccination rates as there is an ongoing risk of unvaccinated or incompletely vaccinated travellers acquiring polio in countries where it is still present.

Signs and Symptoms:

Polio can cause either mild or severe symptoms. Symptoms may include fever, headache, gastrointestinal disturbance and stiffness of muscles in the neck and back with or without paralysis. Paralysis occurs in less than 1% of infections. Muscle paralysis can occur in any muscles of the body; legs are affected more than the arms. Paralysis of the respiratory muscles can be life-threatening. Improvement of the paralysis occurs during recovery, but paralysis that is still present after 60 days is usually permanent.

Post-polio syndrome is recurrence of muscle weakness many years after the original infection has resolved. This is not due to persistence of the virus.

The time from contact with the virus and the development of symptoms is usually between three to 21 days.

Treatment:

There is no proven treatment for the virus. Treatment usually focuses on the complications of paralysis especially for persons in need of respiratory assistance.

People with symptoms of poliomyelitis who have a recent history of travel to a country where poliomyelitis is prevalent or who have a household contact with recent travel to a country where poliomyelitis is prevalent should see their doctor immediately.

Control

Public health units investigate all suspected cases of polio. If a case is detected in Australia, various public health measures will be required to prevent further spread. This would likely include immunisation of people who are at risk, isolation of infected people in hospital until cleared of infection, and quarantine of household members in their home until cleared.

Hand washing and good hygiene practices are essential to reducing the spread of poliomyelitis infection. Hands should be washed thoroughly in soap and water for at least 15 seconds and then dried thoroughly. It is important to wash hands after going to the toilet, touching soiled linen or articles and before preparing or eating food.

Immunisation

Vaccination against poliomyelitis is the most effective method of preventing the disease and stopping re-entry of the infection to Australia.

Inactivated polio vaccine (IPV) is part of the National Immunisation Program. It is recommended for all children in a combination vaccine at 2, 4 and 6 months of age with a booster at 4 years of age.

All adults should have completed a full course of poliomyelitis vaccination. Further boosters are not required except for people who travel to areas where they may come into contact with polio; and people whose work may provide opportunity for exposure to the virus.

Health authorities monitor polio control. It is recommended that overseas travellers, particularly those travelling to countries in Africa and central Asia, check current polio alerts and vaccination requirements. Booster vaccination for polio prior to departure is recommended for Australian travellers to certain countries (May 2014: Pakistan, Cameroon, Syria, Afghanistan, Equatorial Guinea, Ethiopia, Iraq, Israel, Somalia and Nigeria). Travellers staying four weeks or more are encouraged to carry documentation of their vaccination. Some of these countries will require this documentation prior to departure from that country.

Updates via The Department of Health website, [Recommendations for Australian Travellers](http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-poliomyelitis.htm) (<http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-poliomyelitis.htm>).

Transmission:

The disease is usually spread directly from person-to-person when faeces from an infected person contaminate something which then goes into another person's mouth. In parts of the world where there is poor sanitation, untreated sewage that comes into contact with foods or drinking water can occasionally spread polio. Rarely polio can be acquired from the oral polio vaccine that is still used in some countries overseas.

The virus can be present in faeces from seven to ten days before the onset of symptoms until six weeks after onset of symptoms. Spread to others can occur during this period.

Help and assistance:

For further information please contact your local doctor, community health centre, nearest [public health unit](#) (<https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units>) or the 13HEALTH information line (13 432 584).

Related Content

- [Having a vaccination: what to expect](#) (<http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/192/Immunisation-Vaccination/732/Having-a-vaccination-what-to-expect>)

Other Resources

- [Queensland Health Immunisation](#) (<http://www.qld.gov.au/health/conditions/immunisation/index.html>)
- 13 HEALTH (call 13 43 25 84)
- [Immunise Australia](#) (<https://www.health.gov.au/health-topics/immunisation>) (call 1800 671 811)

References

Heymann, David L. (ed). 2008. Control of Communicable Diseases Manual, 19th edition. Washington, DC: American Public Health Association.

Australian Technical Advisory Group on Immunisation (ATAGI). 2018 .Australian Immunisation Handbook, Australian Government Department of Health, Canberra, immunisationhandbook.health.gov.au.