

## Poliomyelitis (polio)

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### Description:

*Poliomyelitis (or polio) is an infection caused by three types of polioviruses. 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 polio being imported from other countries.*

### 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. Muscle paralysis can occur anywhere; 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.

The time from contact with the virus and the development of symptoms is usually between three to 21 days, but can be longer.

### 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 sewerage 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 transmitted for as long as a person is infectious, which is from seven to 10 days before the onset of symptoms until seven to 10 days after symptoms appear. People can continue to shed the virus in their faeces for up to six weeks.

### 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.

### Prevention:

Widespread vaccination against poliomyelitis is the most effective method of preventing the disease.

Inactivated polio vaccine (IPV) is part of the National Immunisation Program. It is recommended for all children in a

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combination vaccine at 2, 4 and 6 months of age with a booster at 4 years of age.

### Help and Assistance

For further information please contact your local doctor, community health centre, nearest public health unit or the 13HEALTH information line (13 432 584).

### Other Resources

Queensland Health [polio and immunisation fact sheet](#) [Immunise Australia](#) website

### References

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

National Health and Medical Research Council, 2008. *The Australian Immunisation Hand book (9th Ed.)* Canberra: National Capital Printing.