



Poliomyelitis

What is Poliomyelitis?

Polio, or poliomyelitis, is caused by the poliovirus.

Who is most at risk of getting Polio?

The polio virus can affect anyone who has not been fully vaccinated against polio. Children who have not had routine immunization are more likely to get polio. Children under 5 years of age are particularly at risk.

How is Polio spread?

Poliovirus only infects humans. It is very contagious and spreads through person-to-person contact. The virus lives in an infected person's throat and intestines. It enters the body through the mouth and spreads through contact with the feces (poop) of an infected person and less commonly through droplets from a sneeze or cough. You can get infected with poliovirus if you have feces on your hands and you touch your mouth. Also, you can get infected if you put objects like toys that are contaminated with feces (poop) in your mouth.

An infected person may spread the virus to others immediately before and about 1 to 2 weeks after symptoms appear. The virus can live in an infected person's feces for many weeks. It can contaminate food and water in unsanitary conditions. People who don't have symptoms can still pass the virus to others.

What are the signs and symptoms of Polio?

Most people who get infected with poliovirus (about 72 out of 100) will not have any visible symptoms. About 1 out of 4 people with poliovirus infection will have flu-like symptoms that may include—sore throat, fever, tiredness, nausea, headache, stomach pain. These symptoms usually last 2 to 5 days then go away on their own.

A smaller proportion of people with poliovirus infection will develop other more serious symptoms that affect the brain and spinal cord:

- Paresthesia (feeling of pins and needles in the legs)
- Meningitis (infection of the covering of the spinal cord and/or brain) occurs in about 1 out of 25 people with poliovirus infection
- Paralysis (can't move parts of the body) or weakness in the arms, legs, or both, occurs in about 1 out of 200 people with poliovirus infection.

Paralysis is the most severe symptom because it can lead to permanent disability and death. Between 2 and 10 out of 100 people who have paralysis from poliovirus infection die because the virus affects the muscles that help them breathe.

Even children who seem to fully recover can develop new muscle pain, weakness, or paralysis as adults, 15 to 40 years later. This is called post-polio syndrome.

Note that “poliomyelitis” is defined as the paralytic disease. So only people with the paralytic infection are considered to have the disease.

What is the treatment for Polio?

There is no cure for polio. Treatment is for symptoms.

How is Polio prevented?

Polio vaccine protects children by preparing their bodies to fight the polio virus. Almost all children (99 children out of 100) who get all the recommended doses of polio vaccine will be protected from polio.

There are two types of vaccine that can protect against polio: inactivated poliovirus vaccine (IPV) given as an injection and oral poliovirus vaccine (OPV) given by mouth. Only IPV is used in Bermuda. OPV is still used throughout much of the world.

How safe is polio vaccine?

Both OPV and IPV are extremely safe. With OPV, vaccine-associated paralytic polio (VAPP) can occur in approximately 1 in 2.7 million doses. VAPP is associated with the first dose of OPV. The risk declines with subsequent doses of OPV. On rare occasions, over time, in areas of low vaccination coverage, the live weakened viruses in OPV can begin to circulate and regain the ability to cause paralytic cases. This is known as circulating vaccine-derived poliovirus (cVDPV).

IPV is one of the safest vaccines in routine use. No serious adverse events have been linked to it. Mild events include injection site redness in less than 1% of those vaccinated, swelling in 3–11% and soreness in 14–29%.

When is polio vaccine usually given?

In Bermuda, the routine childhood vaccination schedule includes 5 doses of IPV. The vaccine is given at 2 months, 4 months, 6 months, 15-18 months, and 4-6 years of age. OPV may be used in the event of an outbreak of polio.

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