

New York State Department of Health

Poliomyelitis (infantile paralysis, polio)

Updated: September 2008

What is polio?

Polio is a viral disease which may affect the spinal cord causing muscle weakness and paralysis. The polio virus enters the body through the mouth, usually from hands contaminated with the stool of an infected person. Polio is more common in infants and young children and occurs under conditions of poor hygiene. Paralysis is more common and more severe when infection occurs in older individuals.

Who gets polio?

The number of cases of polio decreased dramatically in the United States following the introduction of the polio vaccine in 1955 and the development of a national vaccination program. The last cases of naturally occurring polio in the United States were in 1979. Most of the world's population resides in areas considered free of wild poliovirus circulation. Travelers to countries where polio cases still occur should know they are immune or be fully immunized. In 2008, these areas include Africa, Southeast Asia, and the Eastern Mediterranean.

How is polio spread?

Polio is spread when the stool of an infected person is introduced into the mouth of another person through contaminated water or food (fecal-oral transmission). Oral-oral transmission by way of an infected person's saliva may account for some cases.

When and for how long is a person able to spread polio?

Patients are most infectious from seven to ten days before and after the onset of symptoms. However, patients are potentially contagious as long as the virus is present in the throat and feces. The virus persists in the throat for approximately one week after the onset of illness and is excreted in the feces for three to six weeks.

What are the symptoms of polio?

Up to 95 percent of people infected with polio have no symptoms. However, infected persons without symptoms can still spread the virus and cause others to develop polio. About four to five percent of infected people have minor symptoms such as fever, muscle weakness, headache, nausea and vomiting. One to two percent of infected persons develop severe muscle pain and stiffness in the neck and back. Less than one percent of polio cases result in paralysis.

How soon after infection do symptoms appear?

The incubation period is commonly six to 20 days with a range of three to 35 days.

What are the complications associated with polio?

Complications include paralysis, most commonly of the legs. Paralysis of the muscles of breathing and swallowing can be fatal.

What is the treatment for polio?

There is presently no cure for polio. Treatment involves supportive care.

Does past infection with polio make a person immune?

There are three types of polio virus. Lifelong immunity usually depends on which type of virus a person contracts. Second attacks are rare and result from infection with a polio virus of a different type than the first attack.

Is there a vaccine for polio?

There are two types of polio vaccine: trivalent oral polio vaccine (tOPV), given by mouth, and inactivated polio vaccine (IPV), given as an injection. As of January 2000, tOPV is no longer recommended for immunization in the United States. The recommended schedule for childhood immunization is for IPV to be given at two, four, and six to 18 months of age and between four to six years of age. Adults traveling to countries where polio cases are occurring should review their immunization status to make sure they are immune.

In New York State, polio vaccine is required for all children enrolled in pre-kindergarten programs and schools.

How can polio be prevented?

Maintaining high levels of polio immunization in the community is the single most effective preventive measure.

What is post-polio syndrome (PPS)?

PPS is a condition that affects polio survivors ten to 40 years after recovery from an initial infection. PPS is characterized by further weakening of muscles that were previously affected by the polio infection. Symptoms include fatigue, slowly progressive muscle weakness and deterioration. Joint pain and bone deformities are common. PPS is generally not life-threatening. There is no known cause or effective treatment for PPS.

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