

Poliomyelitis, often called polio or infantile paralysis, is an acute, viral, infectious disease spread from person to person, primarily via the fecal-oral route. When a person is infected with this virus, it is expected that polio transmission among susceptible household contacts will occur in nearly 100 percent of children and more than 90 percent of adults. Transmission most often occurs through contact with stool of the infected person (known as fecal-oral transmission). Less frequently, the virus can be spread through contact with infected respiratory secretions or saliva (oral-oral transmission).



- Jonas Edward Salk (October 28, 1914 – June 23, 1995) was an American medical researcher and virologist, best known for his discovery and development of the first polio vaccine.
- Until 1955, when the Salk vaccine was introduced, polio was considered the most frightening public health problem of the post-war United States. Annual epidemics were increasingly devastating.
- U.S. president Franklin D. Roosevelt was the world's most recognized victim of the disease and founded the organization that would fund the development of a vaccine.

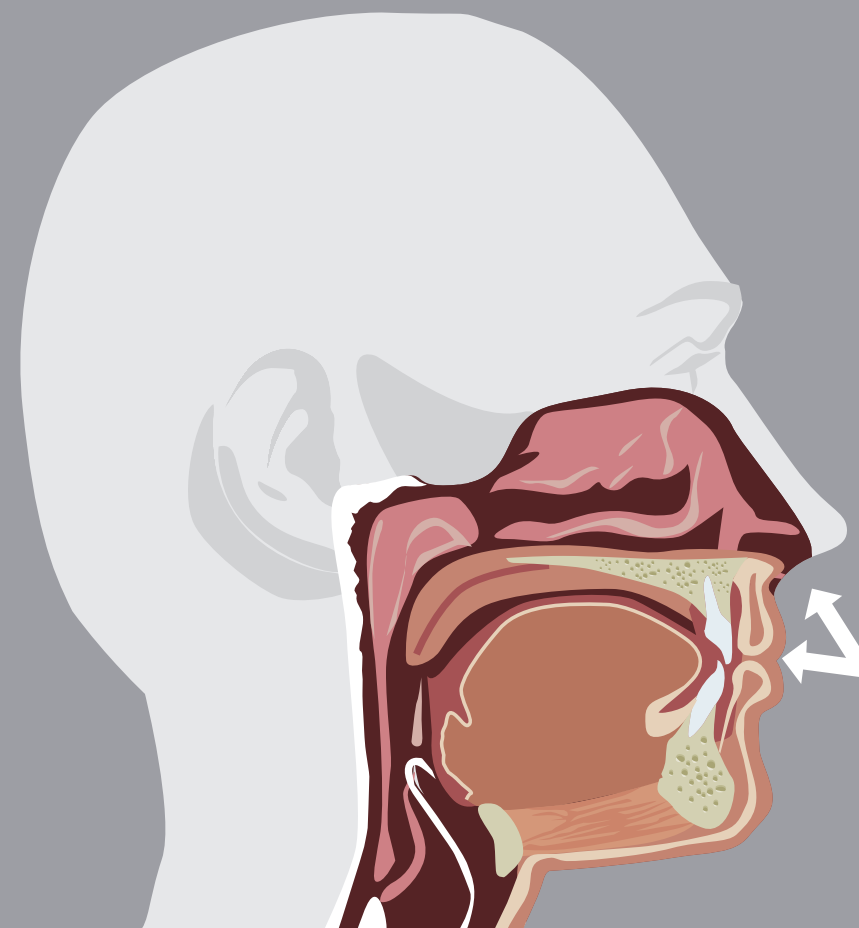
## How Does Poio Virus Works

### Viral infection

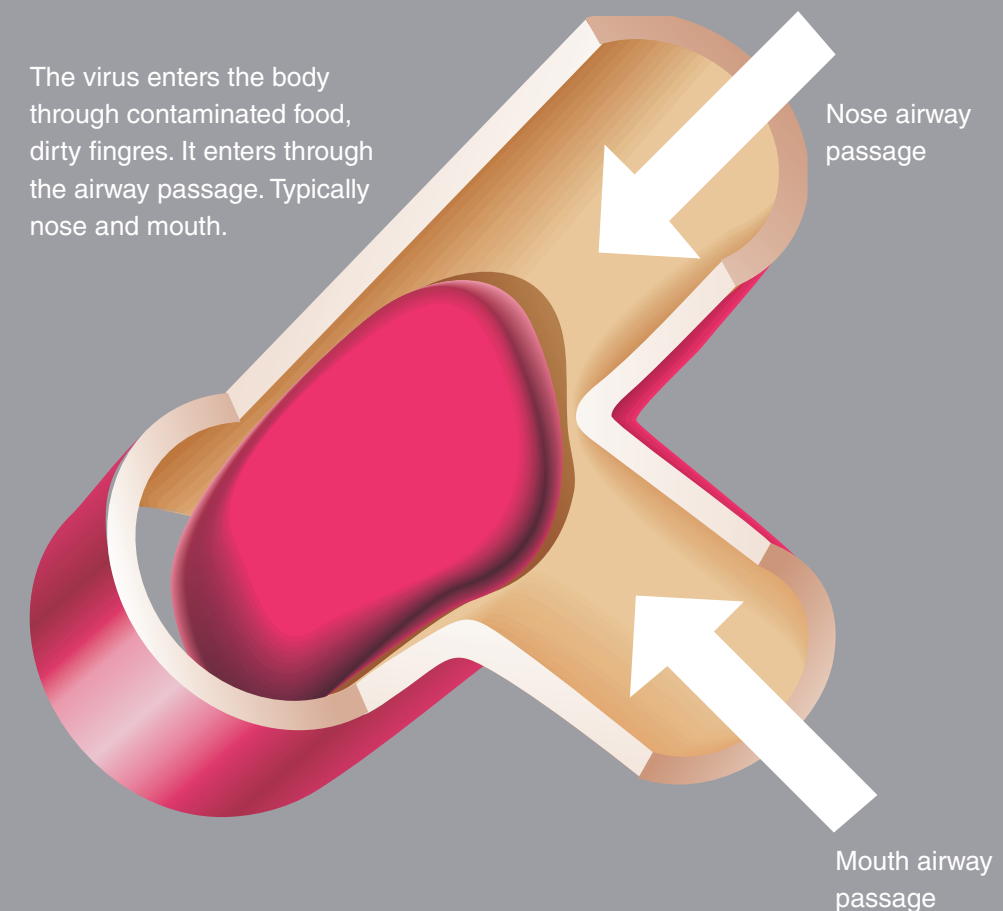
- Polio enters the human body through the mouth.
- According to the World Health Organization, the virus quickly replicates in the throat and intestines and then enters the bloodstream.
- The Smithsonian states that from the bloodstream the polio virus enters the central nervous system, where it multiplies and attacks the motor neuron cells that control the muscles for the trunk, arms and legs as well as for swallowing, respiration and circulation.

### Transmissions

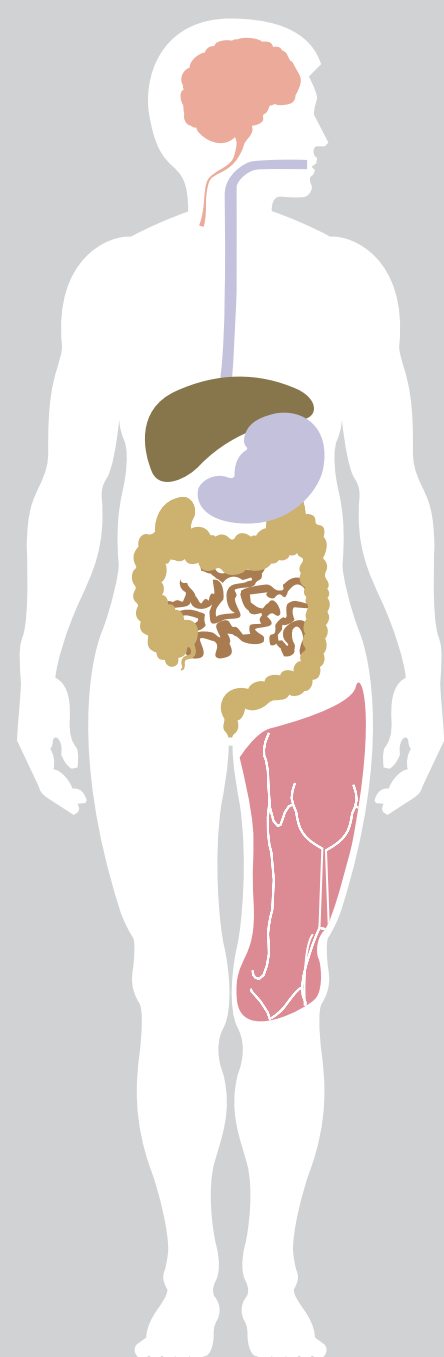
- Polio remains in the fecal matter of patients for weeks after the disease is contracted.
- The polio virus enters the environment through the feces of an infected individual.
- The incubation period is seven to 10 days and many people contract the virus without showing any symptoms, polio can quickly reach epidemic proportions.



The virus enters the body through contaminated food, dirty fingers. It enters through the airway passage. Typically nose and mouth.



## The Life Cycle of Polio

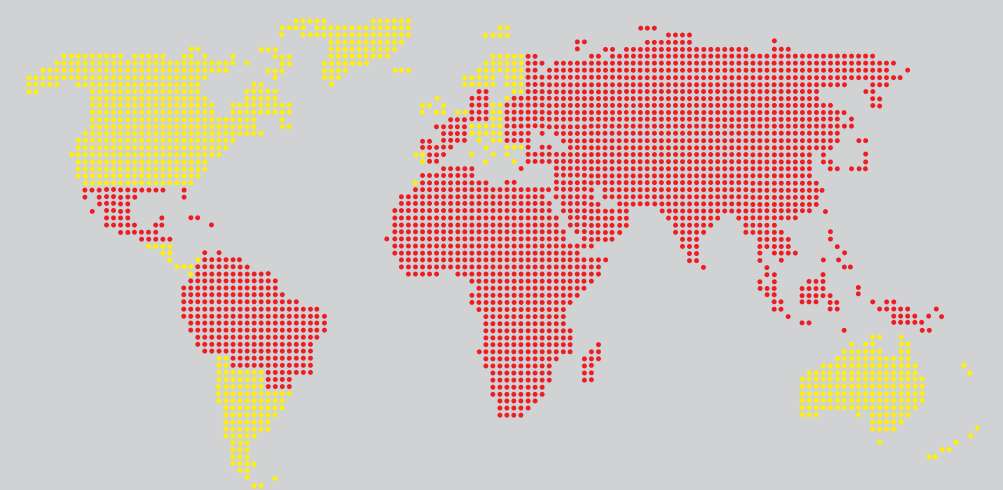


- In less than 0.5% of cases, the virus attacks the central nervous system, destroying cells in the spinal cord
- The virus enters the body through contaminated food, dirty fingers or tainted with sewage
- Even in the people with no symptoms, the virus is excreted in feces that can contaminate food and water
- The virus attaches to receptors on the intestinal walls (oral Polio vaccine attached to the same ones.) From there there it can get into the blood stream
- Nerve cell death can cause muscle paralysis, mostly in legs

## Polio over the years

Polio World map in 1988  
estimated 350 000 cases

- Polio-endemic Countries
- Non-endemic Countries



Polio World map in 2011  
650 reported cases

- Polio-endemic Countries
- Non-endemic Countries

