

### 3. POLIO

## INTRODUCTION

Polio, also known as poliomyelitis and infantile paralysis, is a highly contagious viral infection that can lead to paralysis, breathing problems, or even death. It mainly affects young children. It is caused by infection with the poliovirus.

## INCUBATION PERIOD

The time from being infected with the virus to developing symptoms of disease, incubation ranges from 5-35 days (average 7-14 days)

## MODE OF TRANSMISSION

It is excreted

This virus spreads by direct person-to-person contact, by contact with infected mucus or phlegm from the nose or mouth, or by contact with infected faeces. The virus enters through the mouth and nose, multiplies in the throat and intestinal tract, and then is absorbed and spread through the blood and lymph system.

# TYPES OF POLIO

There are two types of

polio:

- i) Paralytic Polio
- ii) Non-Paralytic Polio

## i) PARALYTIC POLIO

Paralytic Polio affects only a small percentage of those invaded by the polio virus. In these cases, the virus enters motor neurons where it replicates and destroys the cells. These cells are in the spinal cord, brain stem, or motor cortex, which is an area of the brain important in controlling movements.

Paralytic polio causes muscle paralysis and can even result in death.

## ii) NON-PARALYTIC POLIO

Non-Paralytic Polio, also called abortive poliomyelitis, leads to flu-like symptoms that ~~lasts~~ last for a few days or weeks.

In abortive or asymptomatic polio, the virus usually doesn't get past the intestinal tract. The virus may affect the nerves governing the muscles in the limbs and muscles necessary for breathing, causing respiratory difficulty and paralysis of the arms and legs.

## \* PARALYTIC POLIO SYMPTOMS

They include:

1. Loss of muscle reflexes
2. Severe muscle pain and spasms
3. loose or floppy limbs that are often worse on one side of the body.

## \* NON-PARALYTIC POLIO SYMPTOMS

These include:

- \* fever
- \* sore throat
- \* headache
- \* vomiting
- \* fatigue
- \* back and neck pain
- \* arm and leg stiffness
- \* muscle tenderness and spasms
- \* meningitis - an infection of the membranes surrounding the brain.

## CAUSES AND RISK FACTORS

The polio virus usually enters the environment in the feces of someone who is infected. In areas with poor sanitation, the virus easily spreads from feces into the water supply, or by touch, into food.

In addition, polio is so contagious, direct contact with infected person can cause polio.

Once the virus has entered an individual, it infects the cells of the throat and intestine. The virus stays within the intestines, before spreading to other areas of the body. Eventually, the virus moves into the bloodstream where it can spread to the entire body.

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## TREATMENT

The goal of treatment is to control symptoms while the infection runs its course. People with severe cases may need lifesaving measures, especially breathing help. Treatments include; antibiotics for urinary tract infections, medications (such as bethanechol) for urinary retention, moist heat (heating pads, warm towels) to reduce muscle pain and spasms, painkillers to reduce headache, muscle pain and spasms (narcotics are not usually given bcz they increase the risk of breathing difficulty) and physical therapy, braces or corrective shoes, or orthopedic surgery to help recover muscle strength and function.

## PREVENTION

Polio immunization (vaccine) effectively prevents poliomyelitis in most people (immunization is over 90% effective)