

Polio and Infection Prevention and Control FAQs

What is it?

Polio (or poliomyelitis) is a highly infectious vaccine-preventable viral disease that is caused by the poliovirus. Polio has been essentially eradicated in Canada, due to high vaccine uptake, but cases may be observed due to imported virus from areas with low vaccine uptake or vaccine-derived virus.

Any cases of Polio must be reported to Public Health as soon as it is suspected. Infection Prevention and Control (IPAC) has developed this FAQs sheet for team members providing care within healthcare settings.

What treatment is available?

There is no specific therapy for polio. Supportive treatment is available. Polio can be prevented through vaccination.

What are the symptoms and signs?

In most cases, poliovirus infection causes no symptoms and can go unrecognized. However, in approximately 1 in 4 cases, symptoms can develop, typically 3-6 days after exposure. In early stages of the illness, symptoms may include:

- fever
- malaise
- headache
- feeling unwell
- sore throat
- gastrointestinal symptoms such as:
 - abdominal pain
 - nausea
 - vomiting

Meningitis can occur in 1% of cases. Partial or complete paralysis occurs in less than 1% of cases. Onset of paralysis occurs approximately 7 to 21 days from exposure and is often permanent. Weakness or paralysis still present 60 days after onset is likely to persist. Muscle weakness can result in breathing and swallowing difficulties.

Adults who had paralytic polio during childhood may develop a non-infectious post-polio syndrome 15 to 40 years later. This clinical presentation is not contagious and does not warrant specific IPAC precautions outside of routine precautions and PCRA. Symptoms of post-polio syndrome can include:

- muscle atrophy
- slowly progressive muscle weakness
- loss of muscle function
- pain and fatigue

How can poliovirus spread?

Poliovirus is spread primarily through the fecal-oral route, and less often through contaminated vehicles (e.g., contaminated food or water). Respiratory transmission through the droplet route is possible but is rare. Communicability is greatest around the onset of illness when the poliovirus is present in the throat and feces.

Are healthcare workers at risk?

Unimmunized persons are at the highest risk of developing polio.

Transmission risk to immune healthcare workers (HCWs) following Routine Practices and Contact Precautions, with appropriate personal protective equipment (PPE) in the workplace, is very low. HCWs with unprotected exposure to patients with polio (breach in Contact Precautions), require assessment and review by Occupational Health Safety and Wellness, which would include determining the HCW's immune status.

How do I care for a patient with suspect, probable or confirmed polio?

In addition to Routine Practices, Contact Precautions should be used for all suspect, probable, and confirmed cases of polio. A point of care risk assessment (PCRA) should be used to determine the need for additional precautions.

Polio vaccine provides the best protection against polio. Fully vaccinated staff with an increased risk of exposure may be offered a single lifetime adult booster dose of IPV-containing vaccine if they have not had one at or after 18 years of age.

Where can I get more information on polio?

If you'd like to learn more, click the link to the Public Health Agency of Canada site:
<https://www.canada.ca/en/public-health/services/diseases/poliomyelitis-polio/health-professionals.html>

References

Public Health Agency of Canada (2023). Guidance for the response and management of a poliovirus event or outbreak in Canada. <https://www.canada.ca/en/services/health/publications/diseases-conditions/guidance-response-management-poliovirus-event-outbreak-canada.html>

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