

# Poliomyelitis

(Also known as Polio, Polioviral Fever,  
and Infantile Paralysis)



## IMMEDIATELY REPORTABLE DISEASE

Per N.J.A.C. 8:57, healthcare providers and administrators shall immediately report **by telephone** confirmed and suspected cases of poliomyelitis to the health officer of the jurisdiction where the ill or infected person lives, or if unknown, wherein the diagnosis is made. The health officer (or designee) **must immediately institute the control measures listed below in section 5, “Controlling Further Spread,”** regardless of weekend, holiday, or evening schedules.

Directory of Local Health Departments in New Jersey  
and

Directory of After Hour Emergency Contact Phone Numbers for Local Health  
Departments in New Jersey, both available at:

<http://www.nj.gov/health/lh/community/index.shtml>

If the health officer is unavailable, the healthcare provider or administrator shall make the report to the New Jersey Department of Health by telephone to 609.826.5964, between 8:00 A.M. and 5:00 P.M. on non-holiday weekdays or to 609.392.2020 during all other days and hours.

## 1 THE DISEASE AND ITS EPIDEMIOLOGY

### A. Etiologic Agent

Poliomyelitis is caused by poliovirus (genus *Enterovirus*), which has three serotypes: types 1, 2, and 3. Type 1 virus most frequently causes epidemics and is most often isolated from paralytic cases of poliomyelitis. Type 3 and, to a lesser degree, type 2 viruses can also cause paralysis. Paralytic disease may be caused by naturally occurring (wild) polioviruses or by vaccine-derived polioviruses (VDPVs). VDPVs are strains related to the weakened live poliovirus contained in the oral polio vaccine (OPV) and have acquired virulence properties as a result of sustained person-to-person transmission in the absence of adequate population immunity. Clinical disease caused by VDPVs is indistinguishable from that caused by wild polioviruses. As of 2024, types 2 and 3 wild poliovirus have been eradicated worldwide while endemic circulation of type 1 wild poliovirus persists in Afghanistan and Pakistan. Rarely, OPV may cause vaccine-associated paralytic poliomyelitis (VAPP) in vaccine recipients or their close contacts, particularly in immunodeficient individuals. Types 2 and 3 viruses are more likely to be associated with VAPP than are type 1 viruses.

### B. Clinical Description

Infection with poliovirus results in a spectrum of manifestations. The majority of infections in susceptible children (70%) are asymptomatic. Approximately 25% of infected individuals will experience nonspecific viral symptoms, such as a low-grade fever, headache, sore throat, nausea, abdominal pain, constipation, diarrhea, and/or vomiting (abortive disease); 1% to 5% of infections will result in aseptic meningitis, involving stiffness of the back, neck, and/or legs, at times with paresthesias, a few days after the minor illness has resolved. Less than 1% of infections will progress to flaccid paralysis with loss of reflexes in the involved limbs, usually with fever present (paralytic poliomyelitis).

Progression to paralytic poliomyelitis usually occurs within 2 to 4 days and rarely continues after the fever subsides. Spinal paralysis is typically asymmetric, more severe proximally than distally, and deep tendon reflexes are absent or diminished. Paralysis may compromise respiration and swallowing. After the acute episode, many patients recover at least some muscle function and prognosis for recovery can usually be established within 6 months after onset of paralytic disease. Between 2% and 10% of paralytic infections are fatal.

Infection with poliovirus results in lifelong, serotype-specific immunity. Long-term carrier states are rare and have been reported only in immunodeficient persons.

Approximately 25-40% of persons who contracted paralytic poliomyelitis in childhood may develop post-polio syndrome 15 to 40 years later. This syndrome is characterized by muscle weakness in the affected limb(s), mental and physical fatigue, and joint pain. Post-polio syndrome is not an infectious process, and persons experiencing this syndrome do not shed poliovirus.

### C. Reservoirs

Humans are the only host.

### D. Modes of Transmission

The principal mode of transmission is person-to-person by the fecal-oral or oral-oral route, with the fecal-oral route predominating. Transmission via oral secretions, such as saliva, is possible and may account for some cases. Asymptomatic individuals, especially children, comprise a significant source of infections. No reliable evidence of spread by insects exists. In temperate climates, poliovirus infections are most common in the summer and fall.

### E. Incubation Period

- **Abortive (nonparalytic) polio:** The incubation period is usually 3 to 6 days.
- **Paralytic polio:** The incubation period is usually 7 to 21 days, with a range of 3 to 35 days.

### F. Period of Communicability or Infectious Period

The period of communicability is greatest shortly before and after onset of clinical illness when the virus is present in the throat and excreted in the highest quantities in the feces. The virus persists in the throat for approximately 1 to 2 weeks after onset of illness and is excreted in the feces for an average of 3 to 6 weeks. Patients are contagious for as long as fecal excretion persists. Rarely, excretion of poliovirus more than 6 months after infection has been found in asymptomatic, immunodeficient persons. Poliovirus can be found in throat secretions as early as 36 hours and in the feces 72 hours after exposure to the virus in both symptomatic and asymptomatic cases.

In recipients of oral polio vaccine (OPV), the virus persists in the throat for 1 to 2 weeks and is excreted in feces for several weeks, although in rare cases, excretion for more than 2 months can occur. Immunodeficient patients have excreted vaccine virus for periods of more than 30 years.

## G. Epidemiology

Prior to the widespread use of polio vaccine, poliomyelitis occurred worldwide. Polio was epidemic in the United States for the first half of the 20th century with over 20,000 cases of paralytic disease in 1952. The first inactivated poliovirus vaccine (IPV) was introduced in 1955, monovalent oral poliovirus vaccine (OPV) in 1961, trivalent in 1963, and enhanced inactivated poliovirus vaccine in 1987. After the introduction of vaccination, the reported number of cases of poliomyelitis in the United States dropped to fewer than 100 in 1965 and fewer than 10 cases in 1973. The last reported cases of indigenously acquired wild-type poliovirus in the United States were in 1979 and the last imported case of poliomyelitis caused by wild-type poliovirus was reported in 1993. After worldwide vaccination efforts, wild poliovirus type 2 was declared eradicated in 2015, followed by wild poliovirus type 3 in 2019. As of 2024, wild poliovirus type 1 remains endemic in just 2 countries: Afghanistan and Pakistan.

Despite successful elimination, cases of paralytic polio persisted in the United States, albeit exceedingly rare. From 1980 to 1996, an average of 8 cases of paralytic polio were reported annually in the United States. Most of these cases were vaccine-associated paralytic poliomyelitis (VAPP), which can occur after receipt of OPV. The risk for VAPP is highest after receipt of the first dose of oral poliovirus vaccine, occurring at 1 case per 750,000 doses distributed.

In January 1997, to reduce the risk of VAPP, a sequential polio vaccination schedule (IPV for doses 1 and 2, OPV for doses 3 and 4) was recommended in the United States. With the continued success of worldwide efforts to eradicate poliovirus and in the interest of eliminating completely the occurrence of VAPP, an all-IPV immunization schedule was initiated on January 1, 2000, in the United States. The last case of VAPP acquired in the United States was reported in 1999.

In 2005, the first vaccine derived poliovirus (VDPV) was identified in the United States and the first transmission in a community since OPV immunizations were discontinued in 2000 was reported. This raised concerns about transmission in communities with low levels of immunization because VDPVs are able to replicate in the intestinal tract of inadequately immunized persons and may be transmitted to others with inadequate immunity. Outbreaks of VDPVs in other countries that routinely administer OPV have been reported every year since 2000. A majority of VDPV outbreaks were caused by VDPV type 2. To remove the risk for infection with VDPV type 2, all OPV-using countries simultaneously switched in April 2016 from trivalent OPV to bivalent OPV, which contains only types 1 and 3 polioviruses. Despite the great achievement in polio elimination in the United States and most of the world, vigilance is needed in light of the potential for importation of wild-type poliovirus and VDPVs into the United States. This importation may occur among unvaccinated or incompletely vaccinated travelers. In July 2022, a confirmed case of paralytic poliomyelitis was identified in Rockland County, New York in an unvaccinated adult. VDPV type 2 was detected in stool specimens from the patient, and in wastewater samples from the patient's county of residence and in neighboring counties both before and after the patient's symptom onset indicating other asymptomatic or non-paralytic polio cases in these New York counties. No additional paralytic cases have been identified, and the last detection of poliovirus in wastewater occurred in February 2023. The occurrence of this case,

combined with the identification in wastewater in multiple counties, underscores the importance of maintaining high vaccination coverage to prevent paralytic polio in persons of all ages and epidemics caused by importation of poliovirus into the United States.

## 2 REPORTING CRITERIA AND LABORATORY TESTING SERVICES

### A. New Jersey Department of Health Case Definitions

Polio cases, paralytic and nonparalytic, are reported by states to the Centers for Disease Control and Prevention (CDC) through the National Notifiable Diseases Surveillance System (NNDSS). The New Jersey Department of Health (NJDOH) Communicable Disease Service (CDS) follows the most current case definition as published on the CDC NNDSS website. For the most recent case definitions please visit:

<https://ndc.services.cdc.gov/case-definitions/poliovirus-paralytic-poliomyelitis-and-nonparalytic-poliovirus-infection-2024/>

#### CASE CLASSIFICATION (as of 2024)

##### *Clinical Criteria:*

Acute onset of flaccid paralysis with decreased or absent tendon reflexes in the affected limbs, in the absence of a more likely alternative diagnosis.

##### *Laboratory Criteria:*

- Poliovirus detected by sequencing of the capsid region of the genome by the CDC Poliovirus Laboratory, OR
- Poliovirus detected in an appropriate clinical specimen (e.g., stool [preferred], cerebrospinal fluid, oropharyngeal secretions) using a properly validated assay, AND specimen is not available for sequencing by the CDC Poliovirus Laboratory

#### 1. Paralytic Poliomyelitis

##### CONFIRMED

- Meets clinical criteria AND laboratory criteria

#### 2. Nonparalytic Poliomyelitis

##### CONFIRMED

- Meets laboratory criteria

## B. Laboratory Testing Services Available

Laboratory studies are critical for diagnostic purposes and for confirming whether a case of paralytic poliomyelitis is the result of wild or vaccine-related virus infection.

Diagnostic testing can detect poliovirus in specimens from the feces (stool), throat, and occasionally blood and cerebrospinal fluid (CSF). Poliovirus is most likely to be isolated from stool specimens. It may also be isolated from pharyngeal swabs. Isolation is less likely from blood or CSF. Serology may be helpful in supporting the diagnosis of paralytic poliomyelitis; particularly if a patient is known or suspected to not be vaccinated.

While the New Jersey Public Health and Environmental Laboratories (PHEL) is currently unable to perform diagnostic testing, they will facilitate testing at CDC or one of the approved VPD Reference Centers with prior approval from NJDOH.

For more information about submitting specimens, please see Section 4B below or contact NJDOH Communicable Disease Service (CDS) at 609.826.5964

**NOTE: Prior to sending any specimens for diagnostic/confirmation testing to CDC via the New Jersey Public Health and Environmental Laboratories (PHEL) if polio is suspected, call the NJDOH Communicable Disease Service (CDS) at 609.826.5964 for consultation and guidance.**

# 3

## PURPOSE OF SURVEILLANCE AND REPORTING REQUIREMENTS

### A. Purpose of Surveillance and Reporting

- To detect cases of poliomyelitis caused by wild-type or vaccine-derived polioviruses
- To identify susceptible contacts of a case and provide recommendations for appropriate preventive measures
- To maintain poliovirus elimination

### B. Laboratory Reporting Requirements

The N.J.A.C. 8:57-1.7 states that a laboratory director (or designee) shall report any positive test result for poliovirus immediately by telephone to the local Health Officer having jurisdiction over the locality where the patient lives or, if unknown, to the Health Officer in whose jurisdiction the healthcare provider who requested the laboratory examination is located. If this is not possible, the report may be made immediately by telephone to the NJDOH at 609.826.5964 during business hours and at 609.392.2020 after business hours and on weekends and holidays. Such report shall be followed within 24 hours by a written or electronic lab report.

### **C. Healthcare Provider Reporting Requirements**

According to N.J.A.C. 8:57-1.4, a physician, advanced practice nurse, physician's assistant, or a person having control or supervision over a hospital or other healthcare institution shall immediately report by telephone a known or suspect poliomyelitis case to the Health Officer of the jurisdiction where the individual lives or if unknown, wherein the diagnosis is made. If the Health Officer is unavailable, the report shall be made to the NJDOH by telephone at 609.826.5964 during business hours, or 609.392.2020 after business hours and on weekends and holidays.

### **D. Health Officer Reporting and Follow-up Responsibilities**

The N.J.A.C. 8:57-1.9 states that a Health Officer (or designee) who is notified of the existence of a known or suspect case of poliomyelitis shall immediately notify NJDOH by telephone at 609.826.5964 during business hours and 609.392.2020 after business hours and on weekends and holidays. NJDOH staff will provide guidance and assistance as needed in case investigation, risk communication, contact tracing, and immunization recommendations. Case investigation and response must not be delayed by weekend, holiday, or evening schedules.

Institution of disease control measures is an integral part of follow-up. It is the Health Officer's responsibility to understand and, if necessary, immediately institute the control guidelines listed below in section 5, "Controlling Further Spread."

## **4 CASE INVESTIGATION**

### **A. Objectives of the Investigation**

The primary objective of the case investigation is to ensure susceptible and high-risk susceptible contacts of the case are identified and referred to a healthcare provider for vaccination or placed in quarantine, if appropriate, to prevent further spread of illness.

A second objective of the case investigation is to document information obtained and actions taken. Thorough and timely documentation in Communicable Disease Reporting and Surveillance System (CDRSS) will facilitate communication between disease investigators and assist with public health surveillance. Refer to section 4B5, below, for specific information on filing the report in CDRSS.

Case investigations typically include review of laboratory, medical, and immunization records, as well as interviewing the medical provider/designee to obtain information about clinical presentation and impression. Investigations also include interviews of cases, or their guardian, which are necessary to verify onset dates, symptoms, and to identify sources of infection and contacts at risk.

## B. Investigation guidelines

A [VPD General Case Investigation Checklist](#) and [A Polio Case Investigation Checklist for Local Health Departments](#) were developed to be used by case investigators as a supplement along with this chapter. It includes high level steps of investigation, not necessarily in order, when investigating polio reports. The checklists can be accessed at:

[https://www.nj.gov/health/cd/documents/vpdp/vpd\\_case\\_investigation\\_checklist.pdf](https://www.nj.gov/health/cd/documents/vpdp/vpd_case_investigation_checklist.pdf)

[https://www.nj.gov/health/cd/documents/topics/Polio/polio\\_investigation\\_toolkit.pdf](https://www.nj.gov/health/cd/documents/topics/Polio/polio_investigation_toolkit.pdf)

### 1. Verify report

a) Confirm the suspected diagnosis is poliomyelitis (including if it is paralytic or nonparalytic), the reasons the provider is considering polio, the level of suspicion (high vs low on differential), and any alternate diagnoses

i) Patients who have sudden onset of limb weakness and an MRI with at least some gray matter involvement in the spinal cord could have acute flaccid myelitis (AFM). AFM can be a symptom of polio but can have other infectious and non-infectious causes. Clinicians should still report these cases to NJDOH. Please refer to the AFM page for more information: <https://www.nj.gov/health/cd/topics/afm.shtml>

ii) Post-polio syndrome is a condition that polio survivors can experience decades after recovering from acute poliomyelitis. Post-polio syndrome is not infectious and not reportable. Please refer to the post-polio syndrome page for more information: <https://www.nj.gov/health/cd/topics/postpolio.shtml>

b) Request and review any laboratory and imaging tests available. Occasionally, positive poliovirus antibody laboratory tests are reported. Sometimes these tests are ordered to assess for poliovirus immunity and no public health response is necessary. These cases will often be E-Sorted/E-Closed. If polio infection is highly suspected, specimens may be collected and held for submission to CDC via PHEL pending NJDOH approval:

i) At least two stool and two throat (OP) specimens should be obtained 24 hours apart as early in the course of disease as possible (i.e., immediately after polio is considered as a possible differential diagnosis), and ideally within the first 14 days after onset of paralysis. For specimen collection, storage, and handling information please refer to: [https://www.cdc.gov/acute-flaccid-myelitis/hcp/diagnosis-testing/specimen-collection-for-afm.html#cdc\\_generic\\_section\\_2-specimens-to-collect-from-patients-under-investigation-puis-for-afm](https://www.cdc.gov/acute-flaccid-myelitis/hcp/diagnosis-testing/specimen-collection-for-afm.html#cdc_generic_section_2-specimens-to-collect-from-patients-under-investigation-puis-for-afm)

ii) Isolation of the virus from serum is less likely. Serology may be helpful in supporting the diagnosis of paralytic polio, particularly if a patient is known or suspected to not be vaccinated. An acute serum specimen should be obtained as early in the course of disease as possible. A convalescent specimen should be obtained at least 3 weeks later. Detection of poliovirus in CSF is uncommon. Serum and CSF specimens may be collected and held if available.

iii) Facility/ laboratory should create an order via [PHEL's Online Ordering Portal](#):

1) Search for "Reference Laboratory Test Request", select "Other" under test type; enter "Poliovirus testing"; select specimen type; and select appropriate reference laboratory location (CDC Atlanta)



2) If online ordering is not available, a completed [SRD-1](#) form must accompany the specimens sent to PHEL. In “Tests Requested” section of the form, indicate “Reference Laboratory” and write in “CDC Atlanta”

3) Print requisition form and include with sample shipment to PHEL. Name and DOB must be correct and match between form and sample or PHEL will reject it

## **2. Verify illness onset date**

In order to calculate the infectious period for identification of susceptible contacts, it is very important to verify the illness onset date. Frequently, the information initially reported changes as the case investigation progresses.

## **3. Identify contacts**

Poliovirus is highly infectious and communicability is greatest shortly before and after onset of clinical illness. The virus persists in the throat for approximately 1-2 weeks after onset and is excreted in feces for an average of 3-6 weeks. Refer to section 5 for more information.

## **4. Disease control measures**

Institution of disease control measures is an integral part of case investigation. It is the Health Officer’s responsibility to understand and institute the control guidelines listed below in section 5, “Controlling Further Spread”.

## **5. Document case investigation in CDRSS**

The local Health Officer must immediately report the case to NJDOH. After notification to NJDOH, it is the Health Officer’s responsibility to ensure the case is entered into CDRSS and investigated. Use the following guidelines to accurately record all case information into CDRSS:

- Demographic information, at minimum please document/verify:
  - Case’s name
  - Date of birth
  - Sex
  - Race/ethnicity
  - Home address
  - Telephone number
- Clinical information, including:
  - Date of symptom onset
  - Signs and symptoms
  - Facility
  - Admission and discharge dates
  - Mortality
- Laboratory tests and results:
  - Specimen collection date
  - Type of test
  - Results
- Immunization history (via NJIIS, provider, patient/parent record):
  - NJIIS Registry ID
  - Dates of administration of polio vaccine doses
  - Type of vaccine
  - Reason if not vaccinated

- Industry and Occupation:
  - Add employer name and address and click GEOCODE.
    - If unknown, enter 'Unknown' or 'Unwilling to provide' for both
  - Add current occupation (what's the person's job?) and current industry (what does the company make or do?) then click SUBMIT
    - If the person does not work, enter occupation as: 'retired', 'unemployed', 'homemaker', 'volunteer', 'student', 'child', or 'did not work'. And enter 'none' for industry.
    - If unknown, enter 'unknown' for occupation and industry
- Contact tracing:
  - Document whether case has any exposed close contacts and whether the contacts have been referred for/received vaccination.

\*Note: additional case information may be requested by the NJDOH Subject Matter Expert (SME).

## 5 CONTROLLING FURTHER SPREAD

Suspect cases of polio require an immediate investigation with collection of laboratory specimens as appropriate (please see Section 4B above). Control measures, including the administration of polio vaccine to un or undervaccinated populations, should be initiated as quickly as possible BEFORE laboratory confirmation to contain further transmission. If evidence suggests that the case is determined to likely be VAPP, no control measures are indicated. VAPP should be considered as a cause of paralysis, especially if a patient has onset of paralysis after receipt of a first dose of OPV. It is also possible that the case of paralysis is due to an infectious agent other than poliovirus, such as enterovirus, or due to some other noninfectious cause, and not contagious. Therefore, it is **crucial that laboratory testing be initiated** to determine if the causative agent of paralysis is poliovirus and to differentiate wild-type from vaccine-strain poliovirus.

### A. Isolation and Quarantine Requirements (NJAC 8:57-1)

The current recommendations of CDC and NJDOH are as follows:

#### 1. Minimum Period of Isolation of a Suspect or Confirmed Case

Standard and contact precautions for 6 weeks after onset of symptoms or until poliovirus can no longer be recovered from feces (the number of negative specimens needed will be determined by NJDOH CDS, in consultation with CDC, on a case-by-case basis).

#### 2. Minimum Period of Quarantine of Contacts

Please refer to Section 5B directly below.

## B. Protection of Contacts of a Case

### 1. Close Contacts Identification

If polio is highly suspected or confirmed, identification and management of close contacts will occur in consultation with NJDOH CDS and CDC. When beginning to identify close contacts, consider those who may have been exposed to the stool or respiratory droplets of the case especially household members. The following initial precautions for close contacts of a highly suspected polio case include:

- a) Assess for proof of immunity and administer IPV as appropriate
- b) Provide education on transmission and prevention methods (specifically handwashing)
- c) Recommend home quarantine (additional guidance will be provided on a case-by-case basis)
- d) Inform collection of stool samples from household members and other contacts associated with possible transmission settings may be requested
- e) Monitor for symptoms

### 2. Proof of Immunity

Susceptible close contacts 6 weeks of age and older should be vaccinated with IPV (please see section 5C below for detailed immunization recommendations). These are individuals without proof of immunity. Proof of immunity to poliovirus is defined as follows:

- For children (< 18 years of age): documentation of receipt of 4 doses or more of polio vaccine with a minimum interval of 4 weeks between doses with the fourth dose 6 or more months after the third dose. A fourth dose is not necessary if the third dose was given at 4 years of age or older and 6 months or more after the previous dose.
- For adults ( $\geq$  18 years of age): unless there are specific reasons to believe they were not vaccinated, most adults who were born and raised in the United States can assume they were vaccinated for polio as children. Adults who are known or suspected to be unvaccinated against polio should receive 3 doses of IPV with a minimum interval of 4 weeks between doses. Adults who completed their polio vaccination series but have been identified as a contact may receive 1 lifetime IPV booster.
- Anyone with an incomplete series should receive the remaining doses of IPV to complete the series at the recommended intervals.
- Please note, serology to assess immunity for people with no or questionable documentation of poliovirus vaccination is not recommended because of increasingly limited availability of antibody testing against type 2 poliovirus. Previous serology, which was obtained when testing for type 2 poliovirus was still available in the United States, will be accepted as evidence of polio immunity if the test documents a **separate positive result for each of the 3 poliovirus serotypes.**

- Remember, an individual who has received a primary series consisting of 3 or more doses of vaccine AND has received 1 or more booster dose does NOT need to receive another dose.
- Vaccinating an exposed individual who may be incubating poliovirus is NOT harmful. Immune globulin has been found to be of no value as postexposure prophylaxis and is NOT recommended.

### **3. Active Surveillance**

Active surveillance for acute flaccid paralysis and other symptoms of polio infection should continue for at least two incubation periods (i.e., up to 70 days) beyond the onset of the last case in an area.

## **C. Preventive Measures**

Vaccination is the best preventive measure against polio. All individuals – children and adults – who are unvaccinated or incompletely vaccinated against polio should be vaccinated according to the Advisory Committee on Immunization Practices (ACIP) routine and catch-up schedules. Good personal hygiene, particularly proper handwashing with soap and water for at least 20 seconds after using the bathroom and before eating is also very important. Alcohol-based sanitizers may not be as effective against poliovirus as soap and water. But if soap and water are not available, it is recommended to use an alcohol-based sanitizer with at least 60% alcohol.

### **1. Routine Polio Childhood Immunization Recommendations**

An all-IPV polio immunization schedule is now the recommended schedule. OPV is NO LONGER RECOMMENDED and is NOT available for routine immunization in the United States. Four doses of IPV are needed to complete the primary series: doses are recommended at ages 2 months, 4 months, 6 to 18 months, and 4 to 6 years. The first dose of IPV vaccine may be administered as early as age 6 weeks but is usually administered at age 2 months. The recommended interval between the doses in the primary series is 2 months but the fourth dose in the IPV series should be administered at least 6 months after the previous dose. A dose of IPV vaccine on or after age 4 years is recommended regardless of the number of previous doses. A fourth dose is not necessary if the third dose was given at 4 years of age or older and 6 months or more after the previous dose.

### **2. Polio Vaccine and Adults**

Most persons 18 years of age and older residing in the United States have likely already been vaccinated against poliovirus during childhood. Adults who are known or suspected to be unvaccinated or incompletely vaccinated against polio should complete a primary vaccination series with IPV. Adults requiring a primary polio vaccination series should receive 2 doses of IPV administered at an interval of 4–8 weeks; a third dose should be administered 6–12 months after the second dose. Adults who have received a primary series of trivalent OPV or IPV in any combination and who are at increased risk for exposure to poliovirus may receive a single life-time booster dose of IPV. Adults who might be at increased risk for exposure to poliovirus include:

- Laboratory and healthcare workers who handle specimens that might contain poliovirus
- Healthcare workers or caregivers who have close contact with a person who might be infected with poliovirus
- Persons traveling to regions of the world where polio is endemic or epidemic
- Other adults who are identified by public health as being part of a group or population at increased risk for exposure because of an outbreak

### **3. Polio Vaccination and Travel**

In assessing the risk to a traveler for polio transmission, healthcare providers are urged to determine first if their patients will truly be traveling to a polio-endemic or epidemic area. Please go to [www.cdc.gov/travel](http://www.cdc.gov/travel) to obtain information on the risk of transmission of poliovirus in specific countries.

If travel to a polio-endemic or epidemic region is anticipated, please review the patient's history of polio immunization. 90% or more of vaccine recipients develop protective immunity to all 3 poliovirus types after 2 doses, and at least 99% are immune following 3 doses.

#### Adults (18 years and older)

- Adults who are unvaccinated against polio should complete a primary vaccination series of 3 IPV doses.
- If an adult cannot complete the series before traveling, an accelerated schedule (3 doses of IPV administered at least 4 weeks apart) is recommended.
- Adults who are incompletely vaccinated (received only 1 or 2 doses of polio vaccine in the past) should get the remaining 1 or 2 doses of IPV (administered at least 4 weeks apart) before departure.
- Adults who are fully vaccinated and who plan to travel to a country where there is an increased risk of exposure to poliovirus, may receive a one-time booster dose of IPV.

#### Children

- All infants and children in the United States should be vaccinated against polio according to the routine childhood immunization series.
- If a child cannot complete the routine series before departure, an accelerated schedule is recommended as follows: first dose at age 6 weeks or older, a second dose 4 or more weeks after the first dose, a third dose 4 or more weeks after the second dose, and a fourth dose 6 or more months after the third dose.
- If the accelerated schedule cannot be completed before leaving, the remaining doses should be given in the visited country, or upon return home, at the intervals recommended in the accelerated schedule.
- In addition, children completing the accelerated schedule should still receive a dose of IPV at 4 years old or older, as long as it has been at least 6 months after the previous dose.

## Additional Information

Additional information on polio can be obtained at the polio NJDOH website available at: <https://www.nj.gov/health/cd/topics/polio.shtml>.

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