



**New Jersey Department of Health
Vaccine Preventable Disease Program**

Paralytic Poliomyelitis, New York, 2022: Provider Information

Revised Date: September 1, 2023

POLIO SITUATION UPDATE

A confirmed case of [paralytic poliomyelitis](#) caused by Sabin type 2 poliovirus that reverted to become capable of causing paralysis was identified in July of 2022 in Rockland County, New York, in an unvaccinated adult. The infection was not travel-related. No new cases have been detected since that time.

A single case of polio is considered an outbreak and, in conjunction with the detection of poliovirus in wastewater, constitutes a public health emergency. When one paralytic case is identified, it typically means that there are many other unidentified, non-paralytic cases.

[Wastewater surveillance](#) in Rockland, Orange, Nassau, and Sullivan Counties and New York City showed genetically related poliovirus circulating between April 2022 and February 2023, indicating other asymptomatic or non-paralytic polio cases in these New York counties. Poliovirus can spread where vaccination rates are low.

As a bordering state, the best way to keep New Jersey residents and children polio-free is to maintain high immunity across the population through safe and effective immunization. This document has been revised to reflect updated CDC recommendations regarding adult polio vaccination (as of June 2023). All individuals - children and adults - who are unvaccinated or incompletely vaccinated against polio should be vaccinated according to the [ACIP routine and catch-up schedules](#).

Prevention: Protect Your Patients with Vaccination

As a bordering state, the circulation of poliovirus in parts of New York State underscores the urgency of making sure that every child and adult in New Jersey has been vaccinated against polio. Three doses of polio vaccine are 99% effective in preventing paralysis.

All New Jersey providers who are capable of administering vaccines in their practice should consider stocking inactivated polio vaccine (IPV) and offer IPV to patients according to the recommendations below, which are consistent with guidelines from the Advisory Committee on Immunization Practices (ACIP).

Combination vaccines including IPV can be given to children and is preferred as appropriate, according to ACIP guidelines. IPV alone can be given to children and adults and is available through your usual vaccine ordering channels or may be available from the local health department.

In view of misinformation and rumors, we strongly encourage healthcare providers, who tend to be highly trusted, to speak out about the reality of the threat of vaccine-preventable diseases. We urge you to identify and schedule appointments for unvaccinated or incompletely vaccinated children to receive the IPV and other [routine recommended immunizations](#).

Particular emphasis should be placed on [catch-up immunization](#) for young children who are unvaccinated or incompletely vaccinated, such as those whose parents might have planned to delay immunization until shortly before school enrollment. The hygiene habits of young children and the fact that they are often cared for in congregate settings place them at greater risk for acquiring vaccine-preventable diseases.

Polio Vaccination Recommendations

Polio immunization has been available since 1955 and has been part of the routine childhood immunization schedule in the United States (U.S.) for decades. The IPV is the only polio vaccine that has been given in the U.S. since 2000, and protects against all three types of poliovirus, regardless of whether it was given in the U.S. or abroad. Generally, those who attended school in NJ would likely have received polio vaccine as part of [school-entry requirements](#).

All individuals – children *and* adults – who are unvaccinated or incompletely vaccinated against polio should be vaccinated according to the [ACIP routine and catch-up schedules](#).

The revised recommendations reflect a June 2023 recommendation that adults who are unvaccinated or have not received all recommended polio vaccine doses should receive additional doses to complete their primary series using IPV. Previously, the adult recommendation was risk-based.

For persons with a record of oral polio vaccine (OPV), only trivalent OPV (tOPV) counts toward fully vaccinated status.

- Doses of OPV given before April 1, 2016, should be counted unless specifically noted as monovalent, bivalent, or as given during a poliovirus immunization campaign.
- Doses of OPV given on or after April 1, 2016, should not be counted.
 - OPV given on or after April 1, 2016, as part of routine immunization regimens outside the U.S. does not protect against type 2 poliovirus, identified as the type circulating in New York.
 - If there is uncertainty about whether a dose of OPV should be counted, give a dose of IPV.

Children:

- Four doses of polio vaccine, one dose at each of the following ages:
 - 2 months old
 - 4 months old
 - 6 through 18 months old
 - 4 through 6 years old

Adults:

- Most adults have likely already been vaccinated against poliovirus during childhood.
- However, adults who know or suspect that they are unvaccinated or incompletely vaccinated against polio should complete their polio vaccination series with IPV:
 - Two doses separated by 1 to 2 months, and
 - A third dose 6 to 12 months after the second dose.
- Individuals with one or two doses of polio vaccine in the past should get the remaining one or two doses.
- Individuals who are fully vaccinated and are at increased risk of poliovirus exposure, including planning to travel to countries where there is an increased risk, may receive a single lifetime booster dose of IPV.

Situations that put adults at increased risk of exposure to poliovirus include:

- Travelers who are going to countries where there is a documented increased risk of exposure to poliovirus (for more information, see [Polio: For Travelers](#)).
- Laboratory or healthcare workers who handle specimens that might contain polioviruses.
- Healthcare workers or other caregivers who have close contact with a person who could be infected with poliovirus.

Travel:

Polio vaccination is recommended for all travelers to countries with wild poliovirus or vaccine-derived poliovirus circulation. People who plan to travel internationally should make sure they and their children are up to date with all their vaccines including polio before departure. For more information see:

- [CDC Travel Vaccines](#)
- [Polio: For Travelers | CDC](#)
- [CDC Travel Destinations List](#)

Evidence of Immunity to Poliovirus

Previous poliovirus infection: Poliovirus infection can provide lifelong immunity against the disease, but this protection is limited to the particular type of poliovirus involved (Type 1, 2, or 3). Infection with one type **does not protect** an individual against infection with the other two types.

Serology: 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. More information is available at: <https://www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm>

Records: Written documentation of adequate vaccination with polio-containing vaccine in the past. Healthcare providers, schools, colleges, prior employers, or the military (if enlisted) may have records of immunization history. An individual may also be included in their state's immunization registry. Providers who administer vaccines to patients are strongly encouraged to become New Jersey Immunization System ([NJIS](#)) users and submit administration data. By using NJIS for all patients, regardless of age, it allows for a single source of documentation for all immunizations administered.

Tips for patients on finding immunization records may also be found here: <https://www.cdc.gov/vaccines/adults/vaccination-records.html>

**Polio immunization has been available since 1955 and has been part of the routine childhood immunization schedule in the U.S. for decades. Therefore, adults who were born and raised in the U.S. can assume they were vaccinated for polio as children unless there are specific reasons to believe they were not vaccinated. Adults who received any childhood vaccines in the U.S. almost certainly were vaccinated for polio. However, adults who know or suspect that they are unvaccinated or incompletely vaccinated against polio should complete their polio vaccination series with IPV. Adults who completed their polio vaccination but who are at increased risk of exposure to poliovirus may receive one lifetime IPV booster.

Polio: Clinical Presentation & Transmission

Poliovirus is an enterovirus spread primarily by the fecal-oral route and less commonly by respiratory droplets. Most people with infection have no symptoms but can still transmit the virus, and poliovirus infection can lead to aseptic meningitis, paralysis, permanent disability, and death. On average, 1 in 4 infected people will have flu-like symptoms (mild constitutional, respiratory, and/or gastrointestinal symptoms), 1 in 25 will have aseptic meningitis, and 1 in 200-2000 (varies by virus type) will develop *irreversible* paralysis. **Virus persists in the throat for approximately 1 to 2 weeks after onset of illness and is excreted in feces for an average of 3 to 6 weeks**, sometimes longer. However, infected people are most infectious during the days immediately before and after onset of symptoms. People who are exposed to poliovirus are at risk for non-paralytic poliomyelitis 3 to 6 days after exposure; paralysis typically occurs between 7 to 21 days after exposure.

Reporting Suspected Cases of Polio

Confirmed or suspect cases of poliomyelitis are immediately reportable to the [local health department \(LHD\) where the patient resides](#), or if unknown, wherein the diagnosis is made. If LHD personnel are unavailable, healthcare providers should report the case to the New Jersey Department of Health (NJDOH), Communicable Disease Service at 609-826-5964. In cases of immediately reportable diseases and other emergencies and if the LHD cannot be reached, the NJDOH maintains an emergency after hours phone number: 609-392-2020.

For cases of suspect paralytic polio, or when there is a high suspicion of non-paralytic polio (e.g., compatible illness in a contact of a polio case), consult with the LHD to request approval from NJDOH for specimen submission. Polio testing is not available at the NJDOH Public Health and Environmental Laboratory (PHEL) and would need to be sent to CDC through PHEL. Prior approval is required before submission. While awaiting approval, specimens should be collected as follows (in order of priority):

- **Two** stool specimens: collected 24 hours apart (collected as early in illness as possible, ideally within first 14 days after onset of paralytic disease)
 - 10-20 g, collected in a sterile, wide-mouth container with no additives.
- Oropharyngeal swab AND/OR nasopharyngeal swab:
 - For OP swabs, flocked swabs are preferred. Sterile Dacron or rayon swabs with plastic or metal handles may also be used. Do NOT use cotton or calcium alginate swabs or swabs with wooden sticks.
 - Place the swab in viral transport media (VTM) or universal transport media (UTM).
 - The same swabs and media used for COVID or influenza PCR testing can be used. Do not use saline or send dry swabs.
- Cerebrospinal fluid (CSF): 1-2 mL, if available, in sterile collection tube
- Serum, collected preferably **before** treatment with intravenous immunoglobulin (IVIG): 1mL in red or tiger-top tube
- **Specimens should be stored frozen at $\leq -20^{\circ}\text{C}$ and shipped on dry ice**
- Acute Flaccid Myelitis (AFM) [Specimen Collection Guidance](#) can be referenced for polio specimen collection.

Specimens going to PHEL are required to be entered in [PHEL's Online Ordering Portal](#). If online ordering is not available, a completed [SRD-1 form](#) must accompany all specimens sent to PHEL.

Other routine pathogen-specific testing should continue at hospital laboratories as determined by the patient's clinical picture.

Infection Prevention in Healthcare Settings

Efforts should be made to assess and document poliovirus immunization status of your healthcare staff. Healthcare workers include physicians, nurses, emergency medical personnel, dental professionals and students, medical and nursing students, laboratory technicians, pharmacists, hospital volunteers, and administrative staff.

Only healthcare workers with evidence of complete poliovirus immunization should provide care to patients with poliovirus infection. Healthcare workers who have had three or more doses of polio vaccine in the past and are at higher risk of exposure to poliovirus can get one lifetime booster dose of IPV.

Standard and Contact Precautions should be used, including wearing gloves, gowns, and masks.

For More Information

Resources

- [CDC Suspect Polio Information](#)
- [IPOL Package Insert](#)
- [Polio Vaccine Information Sheet \(VIS\)](#)
- MMWR: [Guidance for assessment of poliovirus vaccination status and vaccination of children who have received poliovirus vaccine outside the United States](#)
- MMWR: [Public Health Response to a Case of Paralytic Poliomyelitis in an Unvaccinated Person and Detection of Poliovirus in Wastewater — New York, June–August 2022](#)
- [CDC Polio Education Materials](#)

Where can I get more information on polio?

- Your local health department
 - Directory of Local Health Departments in New Jersey, available at: <https://www.nj.gov/health/lh/>
- NJDOH Communicable Disease Service, 609-826-5964
 - <https://www.nj.gov/health/cd/topics/polio.shtml>
- Centers for Disease Control & Prevention
 - <https://www.cdc.gov/polio/>
 - <https://www.cdc.gov/vaccines/vpd/polio/>
 - <https://www.cdc.gov/polio/what-is-polio/hcp.html>