



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

**2022 POLIO CASE IN THE UNITED STATES:**

**WHAT YOU NEED TO KNOW**

**Date: August 26, 2022**

**POLIO SITUATION UPDATE**

In late July 2022, a case of paralytic poliomyelitis, caused by [vaccine-derived poliovirus type 2](#), was confirmed in an unvaccinated adult in Rockland County, New York. The infection was not travel-related. One case of paralytic polio is considered an outbreak, and likely indicates underlying poliovirus transmission in a community. Poliovirus has been detected in samples of sewage water in several New York locations, including Rockland and Orange counties and New York City. All children, adolescents, and adults who are unvaccinated or under-vaccinated should be brought up to date with all routine CDC-recommended inactivated polio vaccine (IPV) doses. This is particularly important if they live, work, attend school, or have frequent social interactions with communities in Rockland and Orange Counties; these groups are considered to be at greater risk for exposure to polioviruses than the general population.

**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) available at <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4905a1.htm>.

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 spreading in the involved areas, we strongly encourage healthcare providers, who tend to be highly trusted, to speak out about the reality of the threat of

poliovirus. We urge you to immediately identify and schedule appointments for unvaccinated or under-vaccinated children and adults to receive the IPV.

Particular emphasis should be placed on [catch-up immunization](#) for young children who are unimmunized or under-immunized, 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 poliovirus.

## Polio Vaccination Recommendations

Polio immunization has been available since 1955 and has been part of the routine childhood immunization schedule for decades. The IPV is the only polio vaccine that has been given in the United States 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](#).

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, which is 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:

- **Unvaccinated or unknown vaccination status:** should receive a series of three doses:
  - Two doses separated by 1 to 2 months, and
  - A third dose 6 to 12 months after the second dose.
- **Incompletely vaccinated** (completed one or two doses of polio vaccine in the past): should complete the 3-dose series of IPV (doses administered at least 4 weeks apart)
- **Fully vaccinated** (completed 3 or more doses of polio vaccine in the past): should receive a one-time booster dose of IPV if at [increased risk](#) for exposure to poliovirus
  - At this time, booster doses are not recommended for individuals traveling to the New York City metropolitan area, including Orange and Rockland Counties, merely because of their travel status.

### **Boosters (for those at increased risk):**

Adults who have completed 3 or more doses of polio vaccine in the past AND meet the following criteria, should be offered a booster dose of IPV:

- Individuals who will or might have close contact with a person known or suspected to be infected with poliovirus or such person's household members or other close contacts, or
- Healthcare providers working in areas with community transmission of poliovirus (e.g., Rockland and Orange counties) who might handle specimens that might contain polioviruses or who treat patients who might have polio (e.g., urgent care, emergency department, neurology, virology laboratory workers), or
- Individuals with occupational exposure to wastewater can consider a booster, or
- Individuals who have recently traveled or are going to countries where polio is epidemic or endemic. Since the situation is dynamic, refer to the CDC Travelers' Health website destination pages for the most up-to-date polio vaccine recommendations ([wwwnc.cdc.gov/travel/destinations/list](http://wwwnc.cdc.gov/travel/destinations/list)).

### **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 fully vaccinated against polio before departure. For more information see [Polio: For Travelers | CDC](#) and [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.

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 for decades. If an individual at risk thinks they are unimmunized, and records cannot be easily and quickly obtained, then treat them as if they are unimmunized (see above).

## 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. 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.

Approval is required by NJDOH prior to submission and, upon approval, specimens are generally submitted through the NJDOH PHEL. 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 Fact Sheet](#)
- [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](#)
- [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>