Protocol for Polio Vaccine
(IPOL®)

1. What's New

A. N/A

2. Immunization Protocol

A. Administer 0.5-mL dose, IM or SQ, of polio vaccines as recommended for age, vaccination status, and travel itinerary.

B. May be given with all ACIP-recommended child and adult vaccinations.

3. Vaccine Schedule

A. **Routine schedule for children <18 years of age**

Polio Vaccine (IPOL®) Dose and Route – 0.5-mL, IM or SQ		
Dose	**Acceptable Age Range**	**Recommended Spacing**
1	≥ 7 years	
2		4-8 weeks from previous dose
3		6-12 months from previous dose
4		A 4th dose is not necessary if 3rd dose administered at age 4 or older and at least 6 months after the previous dose. A 4th dose is indicated if all previous doses were administered at <4 years or if the 3rd dose was administered <6 months after the second dose. The minimum interval between the 3rd and 4th dose is 6 months.

B. **Accelerated schedule for children <18 years of age**

Polio Vaccine (IPOL®) Dose and Route – 0.5-mL, IM or SQ		
Dose	**Acceptable Age Range**	**Minimum Acceptable Spacing**
1	≥ 7 years	
2		≥4 weeks after dose 1
3		≥6 months after dose 2

C. **Unvaccinated, incompletely vaccinated, or unknown vaccine status for travelers ≥18 years of age**

Polio Vaccine (IPOL®) Dose and Route – 0.5-mL, IM or SQ		
Dose	**Acceptable Age Range**	**Recommended Spacing**
1	≥18 years	
2		4-8 weeks after dose 1
3		6-12 months after dose 2

D. **Accelerated schedule for unvaccinated, incompletely vaccinated, or unknown vaccine status for travelers ≥18 years of age**

Polio Vaccine (IPOL®) Dose and Route – 0.5-mL, IM or SQ		
Dose	**Acceptable Age Range**	**Minimum Acceptable Spacing**
1	≥18 years	
2		≥4 weeks after dose 1*
3		≥4 weeks after dose 2*

* If less than 8 weeks but more than 4 weeks is available before protection is needed, 2 doses of IPV should be administered at least 4 weeks apart. If less than 4 weeks is available before protection is needed, a single dose of IPV is recommended.[5]

E. **Fully vaccinated travelers ≥18 years of age**

Polio Vaccine (IPOL®) Dose and Route – 0.5-mL, IM or SQ		
Dose	**Acceptable Age Range**	**Minimum Acceptable Spacing**
1	≥18 years	≥12 months after last dose

4. Licensed Vaccines

Product Name	Vaccine Components	Presentation	FDA Approved Age Range	Thimerosal
IPOL®[1]*	Inactivated polio virus (IPV) serotypes 1,2 and 3	5-mL multi-dose vials	≥ 6 weeks	None

*Combination vaccines including polio may also be used according to approved age indication

5. Recommendations for Use

A. IPV is considered routine for children <18 years of age but is not routinely recommended for unvaccinated adults ≥18 years.

B. Adults who previously completed the full, routine polio vaccine series and are planning to travel to any country with circulating poliovirus should receive a onetime booster dose of polio vaccine IPV. Adults working in health care settings, refugee camps or other humanitarian aid settings in countries bordering a country with circulating poliovirus should also receive a one-time booster dose of IPV.[5] Countries where a booster of IPV is recommended before travel can be found at: https://wwwnc.cdc.gov/travel/notices/alert/global-polio

C. Unvaccinated adults who are traveling to countries with increased risk of exposure to poliovirus should receive a three-dose series of IPV vaccine. Adults who have received only one or two doses in the past should get the remaining doses of IPV vaccine administered at least 4 weeks apart.[3] If an adult cannot complete the series before departure, an accelerated schedule (doses administered at least 4 weeks apart) is recommended.[3]

D. Adults who continue to be at risk of exposure to poliovirus should complete the IPV 3 dose series when they return from travel.[3]

E. If a child cannot complete the accelerated schedule before departure, the remaining doses should be given in the visited country, or upon return home, at the intervals recommended in the accelerated schedule.[3]

F. Children completing the accelerated schedule should still receive a final dose of IPV at ≥4 years old, and at least 6 months after the previous dose.[3]

6. Contraindications

A. Severe allergic reaction (e.g., anaphylaxis) to a previous dose or to any vaccine component.[1]

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Vaccine	Contains[3]
IPOL®[1]	calf bovine serum albumin, 2-phenoxyethanol, formaldehyde, neomycin, streptomycin, polymyxin B, M-199 medium

7. Warnings and Precautions

A. Moderate or severe acute illness with or without fever.[4]

B. Although no causal relationship between IPOL® vaccine and Guillain-Barré Syndrome (GBS) has been established, GBS has been temporally related to administration of another inactivated poliovirus vaccine.[1]

8. Other Considerations

A. IPOL® can also be given by the subcutaneous route.[1]

B. Polio vaccine given outside the United States is valid if written documentation indicates that all doses were given after 6 weeks of age and the vaccine received was IPV or trivalent oral poliovirus vaccine (tOPV). Recipients receiving both tOPV and IPV require a total of 4 doses.[5]

C. OPV given before April 1, 2016, can be assumed to be trivalent and valid.[5] OPV doses given in April of 2016, can only be counted as valid if the documentation indicates that it was trivalent.[5] OPV given after May 1, 2016 should not be counted as valid because it was a bivalent or monovalent vaccine.[5]

C. Persons <18 years of age with doses of OPV that do not count should receive IPV to complete the series.[5] Oral polio vaccine (OPV) has been unavailable in the United States since 1999.[5]

D. Travelers staying in a polio-infected country longer than 12 months may receive available poliovirus vaccine (IPV or OPV) in the infected country to meet the departure requirement.[3]

E. Immunodeficiency: IPV may be administered safely to immunocompromised travelers and their household contacts. Although a protective immune response cannot be ensured, IPV might confer some protection to the immunocompromised person.[4] People with certain primary immunodeficiency diseases should not be given live, attenuated OPV and should avoid contact with excreted OPV virus (such as exposure to a child vaccinated with OPV in the previous 6 weeks). Because OPV is no longer given in the United States, this situation would arise only if a child receives OPV overseas.[5] Revaccination with 3 doses of IPV is recommended 6–12 months after hematopoietic stem cell transplantation.

F. Mild Illness: IPV may be administered to people with diarrhea. Minor upper respiratory illnesses with or without fever, current antimicrobial therapy, and the convalescent phase of acute illness are not contraindications for vaccination.[6]

G. Pregnancy: If a pregnant woman is unvaccinated or incompletely vaccinated and requires immediate protection against polio because of planned travel to a country or area where polio cases are occurring, IPV can be administered as recommended for adults.[5]

H. Breastfeeding: Is not a contraindication to administration of polio vaccine to an infant or mother.[5] It is not known whether polio-containing vaccines are excreted in human milk. Use with caution in nursing mothers.[1]

I. After an interval of 15–40 years, 25%–40% of survivors of paralytic poliomyelitis may experience muscle pain and exacerbation of existing weakness or develop new weakness or paralysis. This disease entity, referred to as post-polio syndrome, has been reported only in

persons infected during the era of wild poliovirus circulation. This is not an infectious process.

9. Side Effects and Adverse Reactions

Adverse Event	Frequency
Any local reaction – pain, redness, induration or swelling at the injection site	Up to 75%
Redness ≥50 mm at injection site	Up to 18%
Severe pain, induration or swelling at the injection site	Up to 9%
Any systemic reaction – fever, malaise, aches, persistent crying, drowsiness	Up to 50%
Severe (grade 3) systemic reactions including fever above 102° F	Up to 3%

10. Storage and Handling

A. Store medications according to OAR 855-041-1036.

Vaccine	Temp	Storage Issues	Notes
IPOL®[1]	Store at 2°to 8°C (36°to 46°F)	Do not use if vaccine has been frozen. Protect from light.	

11. References

1. IPOL®. Package insert. Swiftwater, PA: Sanofi Pasteur SA; Updated May 1, 2022. https://www.fda.gov/media/75695/download. Accessed April 14, 2023.
2. Poliomyelitis prevention in the United States: updated recommendations of the Advisory Committee on Immunization Practices (ACIP) Advisory Committee on Immunization Practices. MMWR 2000;49(RR-5). Available at: www.cdc.gov/mmwr/PDF/rr/rr4905.pdf Accessed 14 Apr 2023.
3. CDC. Vaccine Excipient Table. November 2021. Available at https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/excipient-table-2.pdf Accessed 14 Apr 2023.
4. Kroger A, Bahta L, Hunter P. General Best Practice Guidelines for Immunization. Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP). Available at https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/downloads/general-recs.pdf Accessed 14 Apr 2023.
5. Marin M, Patel M, Oberste S, Pallansch M. Guidance for assessment of poliovirus vaccination status and vaccination of children who have received poliovirus vaccine outside the United States. MMWR 2017; 66:23–5. Available at www.cdc.gov/mmwr/volumes/66/wr/pdfs/mm6601a6.pdf. Accessed 14 Apr 2023.

12. Appendix

A. N/A