

Polio Vaccine (IPV)

Revision Date: May 6, 2024

Rationale for Update:

- References to dTap changed to Tdap to align with national standards.

Please consult the Product Monograph ⁽¹⁾ for further information about the vaccine.	
	IMOVAX® Polio (Vero Cell Origin)
Manufacturer	Sanofi Pasteur SA – Distributed by Sanofi Pasteur Limited
Licensed use	Individuals 6 weeks and older
Off-license use	None
Indications for use of provincially funded vaccine	<p>Children (2 months – 17 years of age):</p> <ul style="list-style-type: none">Children previously unimmunized with polio vaccine who have already received diphtheria, pertussis and tetanus-containing vaccines. <p>Notes:</p> <ul style="list-style-type: none">Combination vaccines containing diphtheria, pertussis, polio, tetanus and/or Hib should be used when indicated.For children travelling to countries where polio is known to be circulating (exporting and/or infected) and who are unimmunized or whose series is incomplete for age, an accelerated schedule can be considered.⁽²⁾ <p>Refer to the World Health Organization. Polio Global Eradication Initiative. Polio Now.⁽³⁾ (This includes all the countries listed in red, yellow and green).</p> <ul style="list-style-type: none">Children travelling to countries currently exporting and/or infected with polio and who have not completed their primary series may need to privately purchase polio vaccine through a local travel health professional (private travel clinic or pharmacy) if travel timelines do not allow scheduling through public health.Students requiring polio vaccine are eligible until the end of grade 12 regardless of age. <p>Adults (18 years of age and older):</p> <p><u>Adults - Primary Immunization^(4,5) as they present</u></p> <ul style="list-style-type: none">Adults who have not completed a primary series. <p><u>Adults - High Risk</u></p> <p>Adults in the following groups are at increased risk of exposure to poliovirus and should complete a primary series and receive a single lifetime reinforcing dose:</p> <ul style="list-style-type: none">Members of communities or specific population groups with disease caused by polio (e.g., refugees from countries where polio is circulating such as Afghanistan, Pakistan, Dadaab (Kenya) and Ukraine-evacuees).⁽⁴⁾

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	<ul style="list-style-type: none"> • Close contact with those who may be excreting poliovirus (e.g., people working with refugees or people on humanitarian missions in countries where polio is circulating - exporting and/or infected).⁽⁶⁾ Refer to the World Health Organization. Polio Global Eradication Initiative. Polio Now.⁽³⁾ (This includes all the countries listed in red, yellow and green). • Family members or close contacts of internationally adopted infants who may have been immunized with oral polio vaccine (OPV) within the past 6 weeks.⁽⁴⁾ • Individuals receiving travelers from areas where poliovirus is known to be circulating.⁽⁴⁾ Refer to the World Health Organization. Polio Global Eradication Initiative. Polio Now.⁽³⁾ (This includes all the countries listed in red, yellow and green). • Wastewater workers, working at wastewater treatment plants, who are exposed to sewage. <p><u>Health Care Workers (HCW) in Health Care Settings^(4,5) as they present</u></p> <p>Health care workers should complete a primary series and receive a single lifetime reinforcing dose. This includes:</p> <ul style="list-style-type: none"> • Laboratory workers handling specimens that may contain poliovirus.⁽⁴⁾ • Health care workers and Health care students who may be exposed to patients excreting the wild or vaccine strains of polio virus (contact with stool, fecal matter, or pharyngeal secretions).⁽⁴⁾ <p>Notes:</p> <ul style="list-style-type: none"> • Single antigen polio vaccine is used when only the polio antigen is required. • Combination vaccines containing diphtheria, pertussis, polio and tetanus should be used when indicated. For those requiring diphtheria, pertussis and tetanus-containing vaccines – see Biological Products Tdap-IPV. • For adult recipients of Hematopoietic Stem Cell Transplant (HSCT) and Solid Organ Transplant (SOT), see: <ul style="list-style-type: none"> ○ Adult HSCT and ○ Adult SOT • Adults travelling for 4 weeks or greater to countries currently exporting and/or infected with polio are not eligible for provincially funded vaccine and should be referred to local travel health professionals (e.g., private travel clinics or pharmacies).⁽⁴⁾ • Refer to the World Health Organization (WHO) Global Polio Eradication Initiative for current recommendations.⁽⁷⁾
Dose	0.5 mL
Route	Subcutaneous
Schedule	<p>Primary Series: (Children and Adults)</p> <ul style="list-style-type: none"> • Dose 1: day 0 • Dose 2: 8 weeks after dose 1 (interval between doses may be shortened to four weeks) • Dose 3: 6 – 12 months after dose 2

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	<p>Reinforcing dose:</p> <p>Children:</p> <ul style="list-style-type: none"> • A booster dose of polio-containing vaccine is recommended for children 4 years of age and older, usually as combined vaccine (Tdap-IPV). <p>Note:</p> <ul style="list-style-type: none"> • Single antigen polio vaccine is rarely recommended for children and only if they are assessed as up-to-date for diphtheria, tetanus and pertussis immunization but not up-to-date for polio. • The reinforcing dose of polio is not required if the third dose was given on or after 4 years of age. <p>Adults (18 years of age and older):</p> <p>One adult lifetime reinforcing dose of polio-containing vaccine (at least 10 years after the primary series) is recommended only for:</p> <ul style="list-style-type: none"> • adults who are at increased risk of exposure to polioviruses who completed the primary series.^(1,4,8,9) (refer to high risk indications noted above) and • health care workers⁽⁴⁾. <hr/> <p><u>Oral Polio Vaccine (OPV)</u></p> <ul style="list-style-type: none"> • As of April 1, 2016, trivalent OPV was replaced with either bivalent or monovalent OPV. • Any OPV doses received on or after April 1, 2016, are not considered as valid doses within the routine Alberta Immunization Schedule. <p>To ensure protection against all 3 poliovirus types, individuals presenting with a record of OPV received on or after April 1, 2016, will require re-immunization with IPV or an IPV-containing vaccine to be considered fully immunized.⁽¹⁰⁾</p>
Contraindications	<ul style="list-style-type: none"> • Known severe hypersensitivity to any component of the vaccine or its container.⁽¹⁾ • Anaphylaxis or other allergic reaction to a previous dose of vaccine containing polio antigen.
Precautions	Each dose of vaccine may contain undetectable traces of neomycin, streptomycin and polymyxin B.
Possible reactions	See Product Monograph
Pregnancy	May be considered for pregnant women who require immediate protection and are at increased risk of exposure to wild poliovirus. ⁽¹⁾ Limited data have not revealed an increased risk of adverse events associated with polio vaccine administered to pregnant women. ⁽¹⁾
Lactation	May be administered to breastfeeding mothers when indicated. ⁽¹⁾ It is not known if Imovax® Polio is excreted in human milk. ⁽¹⁾
Program Notes	<ul style="list-style-type: none"> • 1956 - IPV introduced into the routine childhood immunization program. • 1962 - Oral polio vaccine (OPV) administered in AB.

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- 1994 July - IPV replaced OPV in routine immunization in combination with Diphtheria, Tetanus and Pertussis vaccine.
- 2016 November
 - Unimmunized adults at low risk of exposure not eligible for provincially funded vaccine.
 - HCWs that might be exposed to patients excreting polio eligible for primary series and single lifetime reinforcement.
 - Travellers to countries exporting and/or infected with polio and staying 4 weeks or longer eligible for primary series and reinforcing dose for adults.
- 2018 December - OPV doses given on or after April 1, 2016, are not considered valid in the routine AB immunization schedule and should be repeated.
- 2022 April 20 - Added indication for polio vaccine for individuals identified as Ukrainian evacuees.
 - Due to the limited supply of IPV vaccine, dTap-IPV is the vaccine of choice for adults who require polio immunization only.
- 2022 May 18 - Addition of examples of communities and specific population groups with polio.
- 2023 September 25
 - Updated to offer a primary series and reinforcing dose to wastewater workers who handle sewage at wastewater treatment plants.
 - Updated to indicate that adults receiving polio vaccine for the purpose of travel or health care students receiving it prior to placement are not eligible for provincially funded vaccine and must purchase vaccine through a local travel health professional.
 - Clarification that current practice is not to assess and immunize all health care workers, including lab workers, for polio immunization due to the generally low risk of exposure to polio in Alberta and Canada, availability of PPE and the limited supply of vaccine.
- 2023 October 2
 - Updated to clarify countries where polio is circulating
- 2024 January 29 - Removed limited supply constraints. Adults in Health Care Settings should receive a primary series and a single lifetime reinforcing dose. Adults previously unimmunized with polio vaccine should receive a primary series.
- 2024 May 6 - References to dTap changed to Tdap to align with national standards.

References

1. Sanofi Pasteur Limited. IMOVAX® Polio. Product Monograph [Internet]. 2023;1–21. Available from: https://pdf.hres.ca/dpd_pm/00071964.PDF
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4. National Advisory Committee on Immunization. Canadian Immunization Guide (Evergreen ed.) [Internet]. Ottawa, ON: Public Health Agency of Canada. Available from: www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php
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7. World Health Organization. Polio Global Eradication Initiative [Internet]. Public Health Emergency Status. 2023. Available from: <https://polioeradication.org/polio-today/polio-now/public-health-emergency-status/>
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9. US Centers for Disease Control. Health Information for International Travel [Internet]. Yellow Book. 2018. Available from: <https://wwwnc.cdc.gov/travel/yellowbook/2018/infectious-diseases-related-to-travel/poliomyelitis>
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