

POCKET GUIDE FOR IMMUNIZERS

PNEUMOCOCCAL VACCINATION IN CHILDREN

The National Advisory Committee on Immunization (NACI) recommends conjugate pneumococcal vaccine for the following:

1. All children up to 59 months of age, with specific emphasis on:

Children at high risk for IPD, including children who have:

- not previously been immunized with the 13-valent pneumococcal conjugate vaccine
- cochlear implants (including those children who are to receive implants)
- chronic cardiac or pulmonary disease
- chronic cerebrospinal fluid leak
- chronic neurologic conditions that may impair clearance of oral secretions
- diabetes mellitus
- asplenia (functional or anatomic)
- sickle cell disease or other hemoglobinopathies
- congenital immunodeficiencies involving any part of the immune system
- hematopoietic stem cell transplant (candidate or recipient)
- HIV infection
- immunosuppressive therapy
- chronic kidney disease
- chronic liver disease (including hepatitis B and C)
- malignant neoplasms including leukemia and lymphoma
- solid organ or islet cell transplant (candidate or recipient)

2. Children at high risk for IPD aged 60 months and older

3. Children aged 2 to 17 with asthma, regardless of whether they are on high-dose steroids or have chronic obstructive pulmonary disease (COPD)

PNEUMOCOCCAL VACCINE

1. Conjugate pneumococcal vaccine

- Prevnar®13 (PNEU-C-13)

2. Polysaccharide pneumococcal vaccine

- Pneumovax®23 (PNEU-P-23)

CONTRAINDICATIONS AND PRECAUTIONS

- Pneumococcal vaccines are contraindicated in any individual with a history of anaphylaxis to any component of the vaccines, including diphtheria toxoid.

ADVERSE REACTIONS

- Soreness or redness at injection site may occur.

CO-ADMINISTRATION

- Conjugate pneumococcal vaccine may be administered concomitantly with routine childhood vaccines at different injection sites using separate needles and syringes.

For more information, visit the National Advisory Committee on Immunization (NACI) website:
<http://www.phac-aspc.gc.ca/naci-ccni/index-eng.php#rec>

SCHEDULE AND DOSAGE

Infants and children: Each dose of pneumococcal vaccine is 0.5 mL.

Recommended schedules for conjugate pneumococcal vaccine for children 2 months up to and including 17 years of age, by conjugate pneumococcal vaccination history		
Age at examination	Number of previous doses of PNEU-C-7, PNEU-C-10 or PNEU-C-13 received	Recommended regimen if using a schedule with PNEU-C-13 only*
2-6 months**	0 doses	• 2 or 3 doses [†] , and a booster at age 12-15 months
	1 dose	• 1 or 2 doses [†] and a booster at age 12-15 months
	2 doses	• 0 or 1 dose [†] and a booster at age 12-15 months
7-11 months***	0 doses	• 2 doses and a booster at age 12-15 months
	1 dose	• 1 dose at 7-11 months, and 1 dose at 12-15 months
	2 doses	• booster at age 12-15 months
12-23 months, healthy or high risk of IPD***	0 doses, or 1 dose at < 12 months of age	• 2 doses
	2 or more doses at < 12 months, or 1 dose at ≥ 12 months, or complete age-appropriate vaccination with PNEU-C-7 or PNEU-C-10 (no PNEU-C-13)	• 1 dose
24-35 months, healthy or high risk of IPD***	Any incomplete age-appropriate vaccination schedule with any product or complete schedule with PNEU-C-7 or PNEU-C-10 (no PNEU-C-13)	• 1 dose
36-59 months, healthy	Complete schedule with PNEU-C-7 or PNEU-C-10 (no PNEU-C-13)	• 1 dose • If of Aboriginal origin • If attend group child care
	Any incomplete age-appropriate vaccination schedule with any product	• 1 dose
36-59 months, high risk of IPD***	0 dose PNEU-C-13	• 1 dose
60 months – 17 years, high risk of IPD***	0 dose PNEU-C-13	• 1 dose

* **The minimum interval between doses of conjugate pneumococcal vaccine is 8 weeks.**

** Children at high risk of IPD should follow the 4-dose schedule and also receive one dose of PNEU-P-23 at 24 months of age. A single re-immunization with PNEU-P-23 is recommended for some conditions.

*** Children at high risk of IPD should also receive one dose of PNEU-P-23 at 24 months of age. When both PNEU-C-13 and PNEU-P-23 need to be given, the conjugate vaccine should be given first. A single re-immunization with PNEU-P-23 is recommended for some conditions.

† Follow relevant provincial/territorial schedule.

Programs using a 3-dose schedule should offer the third dose early in the second year of life (at 12 months of age) to allow for early complete protection.

BOOSTER DOSES AND RE-IMMUNIZATION

1. Conjugate pneumococcal vaccine

- Re-immunization with conjugate pneumococcal vaccine after age- and risk-appropriate childhood vaccination is not necessary.

2. Polysaccharide vaccine

- Routine re-immunization of healthy children who have been vaccinated with PNEU-P-23 vaccine is not recommended.
- One lifetime booster dose of PNEU-P-23 is recommended 5 years after the initial dose for children aged 2 years and over with a condition that places them at highest risk of IPD (functional or anatomic asplenia or sickle cell disease; hepatic cirrhosis; chronic renal failure or nephrotic syndrome; HIV infection; and immunosuppression related to disease or therapy).