

Comparison of Pneumococcal Vaccines

Updated October 2024

The charts below compare the available pneumococcal vaccines including vaccine type, serotypes covered, dosing, immunity, and cost. For guidance on which pneumococcal vaccine is recommended for specific patients (based on age, underlying conditions)^d, as well as dosing schedules for special populations (e.g., certain immunocompromised patients), see, in the US: [adults](#), [children](#) or, in Canada: [adults and children](#).

Vaccine	Serotype																																
	1	2	3	4	5	6 A	6 B	7 F	8	9 N	9 V	10 A	11 A	12 F	14	15 A	15 B	16 F	17 F	18 C	19 A	19 F	20	20 A	22 F	23 A	23 B	23 F	24 F	31	33 F	35 B	
PPSV 23*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PCV 21	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PCV 20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PCV 15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PCV 13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Vaccine	<i>Pneumovax 23*</i> (PPSV23)	<i>Capvaxie</i> (PCV21)	<i>Prenar 20</i> (PCV20)	<i>Vaxneuvance</i> (PCV15)	<i>Prenar 13</i> (PCV13) Canada only
Approved age and usual regimen <i>Each dose is 0.5 mL IM (note that Pneumovax 23 can also be given subcutaneously).</i>	<ul style="list-style-type: none"> ≥50 years ≥2 years at increased risk for pneumococcal disease^d 1 dose 	≥18 years: 1 dose	Pediatric: <ul style="list-style-type: none"> 4-dose series, starting at 6 to 8 weeks of age. Catch-up: <ul style="list-style-type: none"> 7 to 11 months old: 3 doses 12 to 23 months old: 2 doses 2 to 17 years old: 1 dose ≥18 years: 1 dose	Pediatric: <ul style="list-style-type: none"> US: 4-dose series, starting at 6 to 8 weeks of age. Canada: 3- or 4-dose series, starting at 6 to 12 weeks of age. Catch-up: <ul style="list-style-type: none"> 7 to 11 months old: 3 doses 12 to 23 months old: 2 doses 2 to 17 years old: 1 dose ≥18 years: 1 dose	Pediatric: <ul style="list-style-type: none"> 4-dose series, starting at 6 to 8 weeks of age. Catch-up: <ul style="list-style-type: none"> 7 to 11 months old: 3 doses 12 to 23 months old: 2 doses 2 to 17 years old: 1 dose ≥18 years: 1 dose
Immunity	Models project linear decline over 15 years. ³	<ul style="list-style-type: none"> Models project no decline for 5 years, followed by linear decline over 10 years.³ Evidence suggests these may have a greater immune response than PPSV23 against most serotypes they have in common.³⁻⁵ 			
Cost per dose	US: ~\$120 Canada: ~\$35	US: ~\$290 Canada: ~\$140	US: ~\$265 Canada: ~\$110	US: ~\$225 Canada: ~\$105	Canada: ~\$100
Comments:	Covers additional serotypes which cause ~8% to 15% of invasive disease not covered by PCV13, PCV15, or PCV20. ³	<ul style="list-style-type: none"> Recommended as an option for adults who are currently recommended to receive PCV15 or PCV20 (US).⁶ Health Canada recs are pending.⁷ Covers 8 serotypes not included in other vaccines, which cause ~30% of invasive disease in patients ≥50 years. 	<ul style="list-style-type: none"> Recommended first-line for adults and children. Covers additional serotypes causing ~30% of invasive disease NOT covered by PCV13 in patients ≥19 years.³ 	Covers additional serotypes causing ~15% of invasive disease NOT covered by PCV13 in patients ≥19 years. ³	<ul style="list-style-type: none"> Not routinely recommended.⁷ Only covers ~30% of serotypes causing invasive disease.³

*PPSV23 is a polysaccharide vaccine; the others listed are conjugate^b vaccines.

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Information in the chart above is from the product labeling (footnote a), unless otherwise indicated.

- a. **US product labeling:** *Pneumovax 23* (April 2023); *Vaxneuvance* (April 2023); *Prevnar 20* (May 2023); *Capvaxive* (June 2024).
Canadian product labeling: *Pneumovax 23* (March 2024); *Prevnar 13* (August 2019); *Vaxneuvance* (July 2023); *Prevnar 20* (November 2023); *Capvaxive* (July 2024).
- b. The act of conjugating or linking the polysaccharide vaccine to a carrier protein enhances immunogenicity.¹
- c. Pricing is based on wholesale acquisition cost (WAC). US medication pricing by Elsevier, accessed April 2024 (October 2024 for *Capvaxive*).
- d. Some examples of conditions that may increase the risk for pneumococcal disease include: anatomic or functional asplenia, sickle cell disease, human immunodeficiency virus (HIV) infection, chronic heart or lung disease, cerebrospinal fluid leaks, diabetes mellitus.²

References

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Clinical Resource, *Comparison of Pneumococcal Vaccines. Pharmacist's Letter/Pharmacy Technician's Letter/Prescriber Insights*. October 2024. [401067]
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