

Pneumococcal Vaccines

Table 1: 13-valent Pneumococcal Conjugate Vaccine (PCV13 or PCV15) Recommended Schedule

Age at 1st Dose	Total # of Doses 0.5 ml (Intramuscular)	Schedule
2-6 months	4	<ul style="list-style-type: none"> 2, 4, 6 months of age Booster dose at age 12-15 months
4-6 months	4	<ul style="list-style-type: none"> 3 doses at least 4 weeks apart Give Dose 4 (Final Dose) at 12 months of age or older
7-11 months	3	<ul style="list-style-type: none"> 2 doses at least 4 weeks apart Give Dose 3 (Final Dose) at least 8 weeks after Dose 2 and at 12 months of age or older
12-23 months	2	<ul style="list-style-type: none"> 2 doses 8 weeks apart
24-59 months (Healthy)	1	<ul style="list-style-type: none"> 1 dose
24-59 months (High Risk)	2	<ul style="list-style-type: none"> 2 doses 8 weeks apart Administer in conjunction with: <ul style="list-style-type: none"> 1 dose of 23-valent pneumococcal polysaccharide vaccine (PPSV23)¹ (Pneumovax[®]23) Merck (at least 8 weeks after completing all recommended PCV13 or PCV15 doses) 2 doses of PPSV23² <ul style="list-style-type: none"> ✓ Dose 1 administered 8 weeks after PCV13 or PCV15 ✓ Dose 2 administered at least 5 years after dose 1 of PPSV23
6–18 Years (High Risk)	1	<ul style="list-style-type: none"> Administer in conjunction with: <ul style="list-style-type: none"> 1 dose of PPSV23¹ (if not already given earlier in childhood) at least 8 weeks after completing all recommended PCV13 or PCV15 doses 2 doses of PPSV23² <ul style="list-style-type: none"> ✓ Dose 1 administered 8 weeks after PCV13 or PCV15 ✓ Dose 2 administered at least 5 years after dose 1 of PPSV23
19-64 Years ^{1,2,3} (High Risk)	*	<ul style="list-style-type: none"> 1 dose PCV15 or 1 dose PCV20 <ul style="list-style-type: none"> ✓ If PCV20 is used, pneumococcal vaccinations are complete ✓ If PCV15 is used, this should be followed by a dose of PPSV23 given at least 1 year after the PCV15 dose. A minimum interval of 8 weeks between PCV15 and PPSV23 can be considered for adults with an immunocompromising condition² and Cerebrospinal fluid leak (CSFL) or cochlear implants
65 years ≥		

High Risk Conditions:

¹ **Chronic health conditions:** heart disease (particularly cyanotic congenital heart disease and cardiac failure); chronic lung disease (including asthma treated with high-dose, oral corticosteroids); diabetes mellitus; Cerebrospinal fluid leak, cochlear implants; Chronic liver disease, alcoholism

² **Immunocompromising conditions** include: anatomic or functional asplenia; chronic renal failure; congenital or acquired immunodeficiency; Hodgkin disease; nephrotic syndrome; human immunodeficiency virus infection; leukemias, lymphomas, and other diseases associated with treatment with immunosuppressive drugs or radiation therapy; malignant neoplasms; multiple myeloma; Sickle cell disease and other hemoglobinopathies; solid organ transplantation

³ **Underlying medical conditions** or other risk factors include alcoholism, chronic heart/liver/lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, cerebrospinal fluid leak, diabetes mellitus, generalized malignancy, HIV, Hodgkin disease, immunodeficiency, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, solid organ transplants, or sickle cell disease or other hemoglobinopathies.

Advisory Committee on Immunization Practices General Recommendations

- Pneumococcal vaccines provide protection against invasive pneumococcal disease & pneumonia
- Do NOT administer PCV13, PCV15, PCV20 and PPSV23 during same visit

PCV13 (PREVNAR 13) Wyeth or PCV15 (VAXNEUVANCE) Merck

- Routine administration is recommended for all children younger than 2 years of age (y/o) (see Table 1).
- Children who start the series later should still get vaccinated. The number of doses and the intervals between doses will depend on the child's age when vaccination begins. See Table 1, [catch-up guidance](#) and [Pneumococcal Conjugate Vaccine \(PCV\) Catch-Up Guidance for Healthy Children 4 Months through 4 Years of Age](#) for additional information.
- Children 2 y/o or older and adults younger than age 65 with high-risk medical conditions should also receive pneumococcal vaccines. See Table 1. and [Pneumococcal Vaccination: Summary of Who and When to Vaccinate](#) for all pneumococcal vaccine recommendations by vaccine and age.

PCV15 (VAXNEUVANCE) Merck or PCV20 (PREVNAR 20) Wyeth**

- Routine administration is recommended for adults 65 years or older who have **never** received any pneumococcal conjugate vaccine or whose previous vaccination history is unknown: (see Table 1).
- For high-risk adults 19-64 years old and adults 65 years of age and older who have only received PPSV23:
 - ✓ Administer 1 dose of PCV15 **or** PCV20 at least 1 year after their last PPSV23. Their pneumococcal vaccinations are complete.

PPSV23 (Pneumovax [®]23) Merck**

- Dose volume: Single 0.5-mL administered intramuscularly or subcutaneously.
- See Table 1 for recommendations for high-risk populations.
- High-risk adults 19-64 years old who have received PCV13 without PPSV23:
 - ✓ Chronic health & underlying conditions^{1,3}: Give 1 dose of PPSV23** at least 1 year after PCV13. A 2nd and final dose of PPSV23 is not indicated until age 65 years as long as at least 5 years have passed since the 1st dose of PPSV23.
 - ✓ CSFL or cochlear implants and Immunocompromising conditions²: Give 1 dose of PPSV23 at least 8 weeks after PCV13. Give a 2nd dose of PPSV23 at least 5 years after the 1st dose of PPSV23. A 3rd and final dose of PPSV23 is not indicated until age 65 years as long as at least 5 years have passed since the 2nd dose of PPSV23.
- Adults 65 years of age and older who have received PCV13 without PPSV23:
 - ✓ Chronic health & underlying conditions^{1,3}: Give 1 dose of PPSV23** at least 1 year after PCV13.
 - ✓ CSFL or cochlear implants & Immunocompromising conditions²: Give 1 dose of PPSV23** at least 8 weeks after PCV13.
- Shared clinical decision-making is recommended regarding administration of PCV20 for adults aged ≥65 years who completed their vaccine series with both PCV13 and PPSV23. If a decision to administer PCV20 is made, a dose of PCV20 is recommended at least 5 years after the last pneumococcal vaccine dose.

**One dose of PCV20 may be used, if PPSV23 is not available. If PCV20 is used, their pneumococcal vaccinations are complete.

References:

1. Kobayashi M, Farrar JL, Gierke R, et al. Use of 15-Valent Pneumococcal Conjugate Vaccine and 20-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022. *MMWR Morb Mortal Wkly Rep* 2022;71:109–117. DOI: <http://dx.doi.org/10.15585/mmwr.mm7104a1>. Accessed 1/27/22
2. Kobayashi M, Farrar JL, Gierke R, Leidner AJ, Campos-Outcalt D, Morgan RL, et al. [Use of 15-Valent Pneumococcal Conjugate Vaccine Among U.S. Children: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022.](#) *MMWR*. 2022 / 71(37);1174–1181. Accessed 11/18/22



Contraindications (PCV13, 15, 20)^a, PPSV23^b

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^{a,b}
- Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or its component ^a

Precautions

Moderate or severe acute illness with or without fever

Adverse Reactions

Redness, pain, swelling at injection site, chills, decreased appetite, decreased sleep, fatigue, fever, headache, irritability, joint pain, muscle aches, rash, vomiting, somnolence

Storage & Handling

Store vaccine in the refrigerator at 36°- 46°F (2 – 8°C). DO NOT freeze vaccine.