



Ambulatory Care Practitioners

Pneumococcal Vaccine Updates for Adults

Published: June 2025

Vaccine Name	Dosage	Number of Doses	Route of Administration	Serotypes covered (unique serotypes bolded)
VAXNEUVANCE™ (pneumococcal 15-valent conjugate vaccine)^	0.5 ml	1 dose	Intramuscular	1, 3, 4, 5, 6A , 6B, 7F, 9V, 14, 18C, 19A, 19F, 23F, 22F , 33F
PREVNAR 20® (pneumococcal 20-valent conjugate vaccine)*	0.5 ml	1 dose	Intramuscular	1, 3, 4, 5, 6A , 6B, 7F, 8, 9V, 10A , 11A , 12F , 14, 15B , 18C, 19A, 19F, 22F , 23F, 33F
Capvaxine™ (pneumococcal 21-valent conjugate vaccine)*^	0.5 ml	1 dose	Intramuscular	3, 6A , 7F, 8, 9N , 10A , 11A , 12F , 15A , 15B , 15C , 16F , 17F , 19A, 20A , 22F , 23A , 23B , 24F , 31 , 33F , 35B
PNEUMOVAX 23® (pneumococcal polysaccharide vaccine, 23 – valent)	0.5 ml	1 dose	Intramuscular	1, 2, 3, 4, 5, 6B, 7F, 8, 9N , 9V, 10A , 11A , 12F , 14, 15B , 17F , 18C, 19A, 19F, 20 , 22F , 23F, 33F

*Approved for prevention of invasive disease and pneumonia

^Vaccine does not contain preservatives

Updates with Pneumonia Vaccines:

- Previously, pneumococcal conjugate vaccine (PCV) 13 and pneumococcal polysaccharide vaccine (PPSV) 23 were recommended for patients to prevent pneumococcal pneumonia.
 - PCV13 is no longer recommended in CDC guidelines.
- In 2021, the FDA licensed PCV15 and PCV20, which target common serotypes causing pneumococcal pneumonia. In 2024, the FDA licensed PCV21.
- The newer pneumococcal vaccines allow for improvement in vaccination coverage and reducing disparities in pneumococcal disease burden.

Updates to CDC Recommendations (2025):

Routine recommendation for adults aged 50 years and older

- PCV20 or PCV21 OR PCV15 then at least 1 year later PPSV23
- What pneumococcal vaccine has been previously received, determines what to administer
 - If PPSV23 at any age – at least 1 year later administer PCV20 or PCV21 or PCV15
 - If PCV13 at any age – at least 1 year later administer PCV20 or PCV21
 - If PCV13 at any age AND PPSV23 age < 65 years – at least 5 years later administer PCV20 or PCV21

Recommendations for adults aged 65 years and older and DID receive prior pneumococcal vaccine

- For patients who “completed” pneumococcal series (PCV13 at any age and PPSV23 at age 65 or older), shared decision-making with provider
 - PCV20 or PCV21 – administer 5 or more years after PPSV23
- For patients who received 1 dose of PPSV23, administer 1 dose of PCV20 or PCV21 or PCV15 at least 1 year later**
- For patients who received 1 dose of PCV13, administer 1 dose of PCV20 or PCV21

Recommendations for adults aged 65 years and older and did NOT receive prior pneumococcal vaccine

- Administer 1 dose of PCV20 or PCV21 OR 1 dose of PCV15 then 1 dose of PPSV23 at least 1 year later**

Recommendations for adults aged 19 – 49 years with specified immunocompromising conditions*

- Administer PCV20 or PCV21 or PCV15 then at least 8 weeks later PPSV23
- What pneumococcal vaccine has been previously received, determines what to administer**
 - If PPSV23 – at least 1 year later administer PCV20 or PCV21 or PCV15
 - If PCV13 – at least 1 year later administer PCV20 or PCV21
 - If PCV13 AND 1 dose of PPSV23 – at least 5 years later administer PCV20 or PCV21
 - If PCV13 AND 2 doses of PPSV23 – at least 5 years later administer PCV20 or PCV21

*Specified immunocompromising conditions include:

- Chronic renal failure
- Sickle cell disease, HIV, cancer (generalized malignancy, Hodgkin disease, leukemia, lymphoma, multiple myeloma), solid organ transplant, immunodeficiency or asplenia
- Cochlear implants or cerebrospinal fluid leaks

**The minimum interval is 8 weeks and can be considered in adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leaks.

Warnings and Precautions:

Patients should NOT receive the pneumococcal conjugate vaccines if they have a history of severe allergic reaction to pneumococcal conjugate vaccine, any component of the formulation, or any diphtheria toxoid-containing vaccine. PPSV23 should be administered with caution in patients in whom a systemic reaction would cause a significant risk (i.e. those that have severely compromised cardiac and/or pulmonary function).

Adverse Reactions:

Most common side effects reported in adults were injection site pain, muscle pain, fatigue, headache, and arthralgia and injection site swelling.

Storage:

Vaccines must be stored refrigerated, not frozen, at 36 to 46 degrees Fahrenheit. The PCV vaccines should also be stored protected from light.

Efficacy:

As PCV15, PCV20, and PCV21 are new vaccines, data on effectiveness of the vaccines are not yet available. PCV15 and PCV20 were approved after clinical trials demonstrated that antibody levels one-month postvaccination were similar for PCV15 and PCV20 compared with PCV13. PCV15 demonstrated comparable responses to PCV13 for the 15 serotypes once patients received PPSV23 as well. In adults 65 years or older, the response to PCV20 varied depending on the timing of the previous pneumococcal vaccines. PCV21 was approved after clinical trials demonstrated that antibody levels in patients 50 years of age and older were noninferior to PCV20 for the shared serotypes. Additionally, in those who had previously been vaccinated by PPSV23, PCV13 or PCV15, PCV21 showed comparable responses for common serotypes and higher responses for PCV21's unique serotypes. There is currently no direct comparison of clinical outcomes between PCV15, PCV20, and PCV21.

Availability and Cost:

The pneumococcal conjugate vaccine is available at many ambulatory care clinics, retail pharmacies, community health clinics, health departments, and other community locations.

Most private health insurance plans and Medicare Part B cover the cost of pneumococcal vaccines. There may be different assistance programs that can assist with vaccine cost for those who are not able to afford them.

Helpful Resource for Clinical Questions

[PneumoRecs VaxAdvisor](#) mobile app is available to help determine which pneumococcal vaccine a patient needs and when.

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Published on behalf of the [ASHP Section of Ambulatory Care Practitioners Advisory Group on Ambulatory Care Pharmacotherapy](#).

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