

## Pneumococcal Vaccine Updates for Adults

Last Updated: 3/26/2023

Vaccine Name	Dosage	Number of Doses	Route of Administration
VAXNEUVANCE™ (pneumococcal 15-valent conjugate vaccine)	0.5 ml	1 dose	Intramuscular
PREVNAR 20® (pneumococcal 20-valent conjugate vaccine)	0.5 ml	1 dose	Intramuscular
PNEUMOVAX 23® (pneumococcal polysaccharide vaccine, 23 – valent)	0.5 ml	2 doses	Intramuscular

### Updates with Pneumonia Vaccines:

- The new pneumococcal vaccine allows for improvement in vaccination coverage and reducing disparities in pneumococcal disease burden
- Before the new recommendations, pneumococcal conjugate vaccine (PCV) 13 and pneumococcal polysaccharide vaccine (PPSV) 23 were recommended for patients to prevent pneumococcal pneumonia
- In the summer of 2021, the FDA licensed PCV15 and PCV20, which targets common serotypes causing pneumococcal pneumonia

### Updates to Recommendations:

#### ***Recommendations for adults aged 65 years and older and did receive prior pneumococcal vaccine***

- For patients who received 1 dose of PPSV23, administer 1 dose of PCV15 or PCV20 at least 1 year later\*\*
- For patients who received 1 dose of PCV13, administer PPSV23 or 1 dose of PCV20

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

- Administer 1 dose of PCV15 then 1 dose of PPSV23 at least 1 year later\*\*, OR
- Administer 1 dose of PCV20

#### ***Recommendations for adults aged 19 – 64 years with specified immunocompromising conditions\* and did receive PPSV23***

- Administer 1 dose of PCV15, OR
- Administer PCV20 at least 1 year later

#### ***Recommendations for adults aged 19 – 64 years with specified immunocompromising conditions\* and did receive PCV13***

- Administer PPSV23, OR
- Administer 1 dose of PCV20

#### ***Recommendations for adults aged 19 – 64 years with specified immunocompromising conditions\* and did NOT receive prior pneumococcal vaccine***

- Administer 1 dose of PCV15 and 1 dose of PPSV23 at least 1 year later\*\*. OR
- Administer 1 dose of PCV20

\*Specified immunocompromising conditions include:

- Chronic heart (congestive heart failure and cardiomyopathies), lung, kidney, or liver disease or diabetes
- Sickle cell disease, HIV/AIDS, cancer, solid organ transplant, immunodeficiency or asplenia
- Cochlear implants or cerebrospinal fluid leaks
- Alcoholism, smoker

\*\*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 vaccine if they have a history of severe allergic reaction to pneumococcal conjugate vaccine, any component of the formulation, or any diphtheria toxoid-containing vaccine.

#### 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 in the refrigerated at 36 to 46 degrees Fahrenheit

#### How Long to Work:

As PCV15 and PCV20 are new vaccines, data on effectiveness of the vaccines are not yet available. The vaccines were approved after clinical trials demonstrated that antibody levels one-month postvaccination were similar for PCV15 and PCV20 compared with PCV13.

There is no data that make direct comparisons between the two new vaccines.

#### Availability and Cost:

The pneumococcal conjugate vaccine is available at many 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.

#### Additional Information

**PneumoRecs VaxAdvisor** mobile app is available to help determine which vaccine a patient needs and when

#### References:

1. 5 Things to Know About New Pneumococcal Vaccine Guidance. Medscape. [https://www.medscape.com/viewarticle/968119?src=par\\_cdc\\_stm\\_mscpedt?&faf=1#vp\\_3](https://www.medscape.com/viewarticle/968119?src=par_cdc_stm_mscpedt?&faf=1#vp_3)
2. PREVNAR 20 (pneumococcal 20-valent conjugate vaccine) [prescribing information]. Philadelphia, PA: Pfizer; 2022.
3. VAXNEUVANCE (pneumococcal 15-valent conjugate vaccine) [prescribing information]. Whitehouse Station, NJ: Merck & Co; 2022.
4. UpToDate. www.uptodate.com. Accessed March 21, 2023. [https://www.uptodate.com/contents/pneumococcal-vaccination-in-adults?search=pneumococcal%20vaccine%20guidelines&source=search\\_result&selectedTitle=2~146&usage\\_type=default&display\\_rank=1#H3665413226](https://www.uptodate.com/contents/pneumococcal-vaccination-in-adults?search=pneumococcal%20vaccine%20guidelines&source=search_result&selectedTitle=2~146&usage_type=default&display_rank=1#H3665413226)

5. Pneumococcal vaccination. Centers for Disease Control and Prevention. Published 2019.  
<https://www.cdc.gov/vaccines/vpd/pneumo/public/index.html>
6. Protecting Adults Against Pneumococcal Disease. National Foundation for Infectious Diseases. Published June 3, 2022.  
<https://www.nfid.org/2022/06/03/protecting-adults-against-pneumococcal-disease>

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