



MSHS Updated Pneumococcal Vaccination Guidance: 2022

Infection with *Streptococcus pneumoniae* can lead to serious invasive pneumococcal disease (IPD) and non-invasive disease, and is an important cause of morbidity and mortality globally. In 2017, $\geq 100,000$ hospitalized pneumococcal pneumonia cases occurred in U.S. adults aged ≥ 19 years. In 2019, approximately 30,000 IPD cases and approximately 3,000 IPD deaths occurred in the U.S. Currently, $>90\%$ of the adult IPD burden is in persons aged 19–64 years with risk-based indications and persons aged ≥ 65 years.

Summary:

1. What is already known about pneumococcal vaccination?

Currently, the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) are recommended for U.S. adults. Recommendations vary by age and risk groups.

2. What was recently updated?

On October 20, 2021, the Advisory Committee on Immunization Practices recommended 15-valent PCV (PCV15) or 20-valent PCV (PCV20) for PCV-naïve adults who are either aged ≥ 65 years or aged 19–64 years with certain underlying conditions. When PCV15 is used, it should be followed by a dose of PPSV23, typically ≥ 1 year later.

3. What are the implications for public health practice?

Pneumococcal vaccination recommendations were simplified across age and risk group. Eligible adults may receive either PCV15 in series with PPSV23 or PCV20 alone.

Frequently Asked Questions:

1. What if my patient is ≥ 65 years of age and has not previously received any pneumococcal vaccination?

Your patient is eligible to receive a single dose of PCV20 or a single dose of PCV15 followed by a dose of PPSV23 ≥ 1 year later*.

2. What if my patient is ≥ 19 years of age, has underlying medical conditions or other risk factors, and has NOT previously received any pneumococcal vaccination?

Your patient is eligible to receive a single dose of PCV20 or a single dose of PCV15 followed by a dose of PPSV23 ≥ 1 year later*.

3. What if my patient is ≥ 19 years of age and has previously received either PCV13 or PCV15?

Your patient is eligible to receive a single dose PPSV23 ≥ 1 year later* (*one dose of PCV20 may be used if PPSV23 is not available*).

4. What if my patient is ≥ 19 years of age and has previously received only PPSV23?

Your patient is eligible to receive a PCV (either PCV20 or PCV15) ≥ 1 year after their last PPSV23 dose. When PCV15 is used in those with history of PPSV23 receipt, it need not be followed by another dose of PPSV23.

*Adults with immunocompromising conditions, cochlear implant, or CSF leak might benefit from shorter intervals such as ≥ 8 weeks. These vaccine doses do not need to be repeated if given before age 65 years.

Please refer to ACIP recommendations for pneumococcal vaccination of adults published by CDC:

<https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7104a1-h.pdf>

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**Recommendations for use of PCV20 or PCV15 in series with PPSV23 in
Adults ≥ 19 years old**

Medical indication group	Specific underlying medical condition	Age group, years	
		19-64 years old	≥ 65 years old
None	None	None	1 dose of PCV20 OR 1 dose of PCV15 followed by a dose of PPSV23 ≥ 1 year later*
Underlying medical conditions and other risk factors	<ul style="list-style-type: none"> • Alcoholism • Chronic heart disease[†] • Chronic liver disease • Chronic lung disease[¶] • Cigarette smoking • Diabetes mellitus • Cochlear implant • CSF leak • Congenital or acquired asplenia • Sickle cell disease or other hemoglobinopathies • Chronic renal failure** • Congenital or acquired immunodeficiencies **,†† • Generalized malignancy** • HIV infection** • Hodgkin disease** • Iatrogenic immunosuppression **,§§ • Leukemia** • Lymphoma** • Multiple myeloma** • Nephrotic syndrome** • Solid organ transplant** 	1 dose of PCV20 OR 1 dose of PCV15 followed by a dose of PPSV23 ≥ 1 years later [§]	1 dose of PCV20 OR 1 dose of PCV15 followed by a dose of PPSV23 ≥ 1 years later*

* Adults with immunocompromising conditions, cochlear implant, or CSF leak might benefit from shorter intervals such as ≥8 weeks. These vaccine doses do not need to be repeated if given before age 65 years.

[†] Includes congestive heart failure and cardiomyopathies.

[§] Adults with immunocompromising conditions, cochlear implant, or CSF leak might benefit from shorter intervals such as ≥8 weeks.

[¶] Includes chronic obstructive pulmonary disease, emphysema, and asthma.

** Indicates immunocompromising conditions.

^{††} Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease).

^{§§} Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy.

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Pneumococcal Vaccine Comparison Chart: 2022

Vaccine	Pneumococcal Conjugate Vaccine 20 (PCV20) PREVNAR 20™	Pneumococcal Conjugate Vaccine 15 (PCV15) VAXNEUVANCE™	Pneumococcal Polysaccharide Vaccine 23 (PPSV23) PNEUMOVAX® 23
Protection	Serotypes 1, 3, 4, 5, 6A, 6B, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F	Serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, 22F, 23F and 33F	Serotypes 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19F, 19A, 20, 22F, 23F, and 33F
Age	≥ 19 years of age	≥ 19 years of age	≥ 2 years of age
Dose	0.5 mL	0.5 mL	0.5 mL
Preparation	<p>Hold the prefilled syringe horizontally between the thumb and the forefinger and shake vigorously until the vaccine is a homogenous white suspension. Do not use the vaccine if it cannot be resuspended. Do not use if particulate matter or discoloration is observed.</p> <p>Remove the syringe cap by slowly turning the cap counterclockwise while holding the Luer lock adapter. Hold the Luer lock adapter and attach a needle appropriate for IM administration to the pre-filled syringe by turning clockwise.</p>	<p>Hold the prefilled syringe horizontally and shake vigorously immediately prior to use to obtain an opalescent suspension in the prefilled syringe. Do not use the vaccine if it cannot be resuspended. Do not use if particulate matter or discoloration is observed.</p>	<p>Do not use if particulate matter or discoloration is observed.</p> <p style="text-align: center;"><u>Single-Dose Vial</u></p> <p>Withdraw 0.5 mL from the vial using a sterile needle and syringe free of preservatives, antiseptics, and detergents.</p> <p style="text-align: center;"><u>Single-Dose, Prefilled Syringe</u></p> <p>The package does not contain a needle. Attach a sterile needle to the prefilled syringe by twisting in a clockwise direction until the needle fits securely on the syringe.</p>
Administration	Intramuscularly only	Intramuscularly only	Intramuscularly or subcutaneously only
Common Side Effects	Injection-site pain, muscle pain, fatigue, headache, arthralgia, and injection-site swelling.	Injection-site pain, fatigue, myalgia, headache, and injection-site swelling.	Injection-site pain, injection-site swelling, headache, injection-site erythema, fatigue, and myalgia.