

Infectious Diseases Update

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(non-COVID) Adult Vaccine Changes in 2022-23

- Hepatitis B
- Mpox
- Pneumococcal

Hepatitis B

**Universal Hepatitis B Vaccination in Adults Aged 19–59 Years: Updated
Recommendations of the Advisory Committee on Immunization Practices —
United States, 2022**

- Should receive hepatitis B vaccination:
 - All infants
 - Unvaccinated children aged <19 years
 - **Adults aged 19 through 59 years**
 - Adults aged 60 years and older with risk factors for hepatitis B

- (Adults aged 60 years and older without known risk factors for hepatitis B may receive hepatitis B vaccination)

- Why the change in recommendation
 - HepB vaccination coverage has been low, even in those with risk factors (33% in chronic liver disease)
 - Could increase the number of people who receive vaccination before the onset of chronic liver disease and other comorbidities that might make vaccination less effective
 - Risk factors assessed under prior recommendations for HepB vaccination include potential criminal or stigmatizing behavior limiting the effectiveness of provider risk assessment
 - Racial and ethnic disparities exist among those who become infected with HBV, this improved in children and adolescents when universal vaccination strategy was used

Mpox

- ACIP meeting February 2023
 - ACIP recommends the 2-dose JYNNEOS vaccine series for persons aged 18 years and older at risk of mpox during an mpox outbreak (*i.e.* continue to offer now)
- Strategies
 - Post-exposure prophylaxis (PEP)
 - After a known or presumed exposure (within past ~14 days)
 - Vaccination prior to exposure
 - For people with HIV or immunosuppression who have had or anticipate possible exposure, who are candidates for HIV PrEP, or who have had a recent STI
 - Sexual partners of people with these risks

Pneumococcal vaccination

CDC recommends pneumococcal vaccination for

- Adults 65 years old and older
- Adults 19 through 64 years old with certain underlying medical conditions or other risk factors:
 - Alcoholism
 - Cerebrospinal fluid leak
 - Chronic heart/liver/lung disease
 - Chronic renal failure*
 - Cigarette smoking
 - Cochlear implant
 - Congenital or acquired asplenia*
 - Congenital or acquired immunodeficiencies*
 - Diabetes
 - Generalized malignancy*
 - HIV infection*
 - Hodgkin disease*
 - Iatrogenic immunosuppression*
 - Leukemia*
 - Lymphoma*
 - Multiple myeloma*
 - Nephrotic syndrome*
 - Sickle cell disease or other hemoglobinopathies*
 - Solid organ transplants*

* Considered an immunocompromising condition

Old recommendations

Table 1. Medical conditions or other indications for administration of PCV13 and PPSV23 for adults

Medical indication	Underlying medical condition	PCV13 for ≥ 19 years	PPSV23* for 19 through 64 years		PCV13 at ≥ 65 years	PPSV23 at ≥ 65 years
		Recommended	Recommended	Revaccination	Recommended	Recommended
None	None of the below				✓	✓ ≥ 1 year after PCV13
Immunocompetent persons	Alcoholism					
	Chronic heart disease [†]					
	Chronic liver disease		✓		✓	✓ ≥ 1 year after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Chronic lung disease [§]					
	Cigarette smoking					
	Diabetes mellitus					
	Cochlear implants	✓	✓ ≥ 8 weeks after PCV13		✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
Persons with functional or anatomic asplenia	Congenital or acquired asplenia	✓	✓ ≥ 8 weeks after PCV13	✓ ≥ 5 years after first dose PPSV23	✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Sickle cell disease/other hemoglobinopathies					
Immunocompromised persons	Chronic renal failure					
	Congenital or acquired immunodeficiencies [¶]					
	Generalized malignancy					
	HIV infection					
	Hodgkin disease					
	Iatrogenic immunosuppression [‡]	✓	✓ ≥ 8 weeks after PCV13	✓ ≥ 5 years after first dose PPSV23	✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Leukemia					
	Lymphoma					
	Multiple myeloma					
	Nephrotic syndrome					
	Solid organ transplant					

New pneumococcal vaccines

PCV20	PCV15
Brand Name: PREVNAR 20	Brand Name: VAXNEUVANCE
Pfizer	Merck
PCV13 + 7 additional serotypes	PCV13 serotypes + 2 additional
PCV13 phasing out for ADULTS	NEW product

Serotype coverage of current and new vaccines

	1	3	4	5	6A	6B	7 F	9V	14	18 C	19 A	19 F	23 F	22 F	33 F	8	10 A	11 A	12 F	15 B	2	9N	17 F	20	
PCV13	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	White	White	White	White	White	White	White	White	White	White	White	White
PCV15	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	White	White	White	White	White	White	White	White	White	White
PCV20	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Blue	Blue	Blue	Blue	Blue	Blue	White	White	White	White
PPSV23	Yellow	Yellow	Yellow	Yellow	White	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Blue	Blue	Blue	Blue	Blue	Blue	Orange	Orange	Orange	Orange

- No trials have directly compared PCV20 with PCV15

ACIP new recommendations

- PCV20

or

- PCV15 + PPSV23

	1	3	4	5	6 A	6 B	7 F	9 V	14	18 C	19 A	19 F	23 F	22 F	33 F	8	10 A	11 A	12 F	15 B	2	9 N	17 F	20	
PCV15																									
PCV20																									
PPSV23																									

Adults ≥ 65 years

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥1 year† → PPSV23
PPSV23 only at any age	→ ≥1 year → PCV20	→ ≥1 year → PCV15
PCV13 only at any age	→ ≥1 year → PCV20	→ ≥1 year† → PPSV23
PCV13 at any age & PPSV23 at <65 yrs	→ ≥5 years → PCV20	→ ≥5 years§ → PPSV23

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

† Consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak

Shared clinical decision-making for those who already completed the series with PCV13 and PPSV23

Prior vaccines	Shared clinical decision-making option
Complete series: PCV13 at any age & PPSV23 at ≥65 yrs	→ ≥5 years → PCV20 Together, with the patient, vaccine providers may choose to administer PCV20 to adults ≥65 years old who have already received PCV13 (but not PCV15 or PCV20) at any age and PPSV23 at or after the age of 65 years old.

Adults 19-64 with immunocompromising conditions

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥8 weeks → PPSV23
PPSV23 only	≥1 year → PCV20	≥1 year → PCV15
PCV13 only	≥1 year → PCV20	≥8 weeks → PPSV23 → ≥5 years → PPSV23 Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
PCV13 and 1 dose of PPSV23	≥5 years → PCV20	≥5 years [†] → PPSV23 Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
PCV13 and 2 doses of PPSV23	≥5 years → PCV20	No vaccines recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
Immunocompromising conditions	<ul style="list-style-type: none"> • Chronic renal failure • Congenital or acquired asplenia • Congenital or acquired immunodeficiency[§] • Generalized malignancy • HIV infection 	<ul style="list-style-type: none"> • Hodgkin disease • Iatrogenic immunosuppression[¶] • Leukemia • Lymphoma • Multiple myeloma

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

[†] The minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose

Adults 19-64 with cochlear implant or cerebrospinal fluid leak

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥ 8 weeks → PPSV23
PPSV23 only	≥ 1 year → PCV20	≥ 1 year → PCV15
PCV13 only	≥ 1 year → PCV20	≥ 8 weeks → PPSV23 Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
PCV13 and 1 dose of PPSV23	≥ 5 years → PCV20	No vaccines recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 65 years old.

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

Adults 19-64 with other risk factors

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥ 1 year [†] → PPSV23
PPSV23 only at any age	≥ 1 year → PCV20	≥ 1 year → PCV15

- Alcohol use disorder
- Chronic heart/liver/lung disease
- Cigarette smoking
- Diabetes

PneumoRecs VaxAdvisor

- Web version:

<https://www2a.cdc.gov/vaccines/m/pneumo/pneumo.html>

