

Pneumococcal Vaccination Recommendations

Adults ≥19 Years¹⁻⁴

(Including updated recommendations for the use of PCV13 in Adults)

THE
UNIVERSITY
OF RHODE ISLAND
COLLEGE OF
PHARMACY
DRUG INFORMATION
SERVICES
401-874-9188

Healthy Adults ≥ 65

Pneumococcal Vaccination Naive or Unknown History

Previously vaccinated with PPSV23 at age ≥65 Previously vaccinated with **PPSV23** before age 65

≥ 1 year after PPSV23

GIVE: PCV13

Wait ≥ 1 year*

≥ 1 year after PPSV23

GIVE: PCV13 if not previously given

Wait ≥ 1 year*
(and ≥ 5 years after PPSV23)

if not previously given

GIVE: PPSV23†

GIVE: PCV13 if not previously given

ADULTS ≥ 19 with UNDERLYING MEDICAL CONDITIONS (see chart on back)

OR who SMOKE or live in a NURSING HOME

Pneumococcal Vaccination Naive or Unknown History

GIVE: PPSV23

Previously vaccinated with one dose **PPSV23**

Vaccination is **NOT** indicated for healthy persons 19 - 64 years of age

While PCV13 is FDA-approved for persons > 50 years, the Advisory Committee on Immune Practices does not provide guidance for use in this population.

At Age ≥65

GIVE: PCV13 ≥ 1 year after PPSV23 THEN: PPSV23† ≥ 1 year* after PCV13 and ≥ 5 years after PPSV23 At Age ≥65

GIVE: PCV13 ≥ 1year after PPSV23 THEN: PPSV23† ≥ 1 year* after PCV13 and ≥ 5 years after PPSV23

ADULTS ≥ 19 with IMMUNE COMPROMISING CONDITIONS (see chart on back), OR ASPLENIA

Pneumococcal Vaccination

Naive or Unknown History

GIVE: PCV13

≥8 weeks* later

If < 65 GIVE: PPSV23

If < 65 and

≥ 5 years after

PPSV23

GIVE: second PPSV23§ *If* ≥65

Previously vaccinated with one dose **PPSV23**

(including sickle cell anemia), CEREBROSPINAL FLUID LEAK, or COCHLEAR IMPLANT

≥ 1 year after PPSV23

GIVE: PCV13 if not previously given

≥8 weeks* later

If < 65 and
≥ 5 years after
PPSV23
GIVE: second
PPSV23
§

If ≥65

≥ 1 year after PPSV23

Previously vaccinated with

two doses of PPSV23

GIVE: PCV13 if not previously given

At Age ≥65
GIVE: PPSV23†
≥ 5 years after
PPSV23

GIVE: PPSV23†

At Age ≥65
GIVE: PPSV23†
≥ 5 years after
PPSV23

GIVE: PPSV23† ≥5 years after PPSV23 At Age ≥ 65
GIVE: PPSV23† ≥ 8 weeks* after
PCV13 and ≥ 5 years after PPSV23

^{*} Minimum interval between sequential administration of PCV13 and PPSV23 is 8 weeks in immunocompromised patients. For Medicare reimbursement interval must be 11 full months. Please refer to page 4.

[†] The ACIP (Advisory Committee on Immunization Practices) recommends only 1 dose of PPSV23 at age ≥65. Revaccination is not necessary.

[§] A second PPSV23 for patients with cerebrospinal fluid leak, or cochlear implant is not required.



Pneumococcal Vaccination Recommendations Adults ≥19 Years 1-5

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(Including updated recommendations for the use of PCV13 in Adults)

PCV13 and PPSV23 Indications for Adults ≥ 19 Years* by Risk Group ^{2,3}

Risk Group	Underlying Medical Condition	PCV13 (Prevnar13®)	PPSV23 (Pneumovax®23)	
		Recommended	Recommended	Revaccinate 5 years after first dose
Persons with normal immune function	Cigarette smoker		✓	
	Chronic heart disease†		✓	
	Chronic lung disease§		✓	
	Diabetes mellitus		✓	
	Cerebrospinal fluid leak	✓	✓	
	Cochlear implant [£]	✓	✓	
	Alcoholism		✓	
	Chronic liver disease, cirrhosis		\checkmark	
Persons with functional or anatomical asplenia (Please refer to reference 3 for specific guidance.)	Sickle cell disease or other hemaglobinopathy [∞]	✓	√	✓
	Congenital or acquired asplenia [∞]	√	✓	✓
Immunocompromised persons (Please refer to reference 3 for specific guidance.)	Congenital or acquired immunodeficiency [¶]	√	√	√
	HIV infection	√	✓	✓
	Chronic renal failure	√	✓	✓
	Nephrotic syndrome	√	✓	✓
	Leukemia	✓	✓	✓
	Lymphoma	√	✓	✓
	Hodgkin disease	\checkmark	✓	✓
	Generalized malignancy	√	✓	✓
	latrogenic immunosuppression** (Both high and low level immunosuppression)	√	✓	✓
	Solid organ transplant	√	✓	✓
	Multiple myeloma	✓	✓	✓
	Hematopoietic stem cell transplant	Please refer to	Please refer to reference 3 for specific guidance	

- Including congestive heart failure and cardiomyopathies, excluding hypertension.
- If feasible, administer PCV13 and PPSV23 ≥ 2 weeks before planned cochlear implant surgery at appropriate intervals as described in the algorithm on the front page.
- For PPSV23 naive patients planning splenectomy. Give PCV13; wait at least 8 weeks then give PPSV23. Do not give PPSV23 within 2 weeks of planned splenectomy.
- Including chronic obstructive pulmonary disease, emphysema, and asthma.
- Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease).

Those requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation.

REFERENCES:

- Immunization Services Division, National Center for Immunization and Respiratory Diseases, CDC. Advisory Committee on Immunization Practices (ACIP) Recommended Immunization Schedules for Persons Aged 0 Through 18 years and Adults Aged 19 Years and Older - United States, 2013. MMWR Morb Mortal Wkly Rep. 2013;62(Suppl):9-19.
- CDC. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine for adults with immunocompromising conditions: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2012;61(40):816-819.
- CDC. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥ 19 years: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2014;63(37):822-825.
- Kobayashi M, Bennett NM, Gierke R, et al. Intervals between PCV13 and PPSV23 vaccines: Recommendations of the Advisory Committee in Immunization Practice (ACIP) MMWR Morb Mortal Wkly Rep. 2015; 64(34): 944-947.
- 5. Rubin LG, Levin MJ, Davies EG, et al. 2013 IDSA clinical practice guideline for vaccination of the immunocompromised host. Clin Infect Dis. 2014;58:e44-e100. doi: 10.1093/cid/cit684.

Pneumococcal Vaccination Information Sheet PCV13 (Prevnar 13®) and PPSV23 (Pneumovax® 23)



Facts About Pneumococcal Disease:

- Streptococcus pneumoniae bacteria (i.e., pneumococci) are usually found in the upper respiratory tract of most people.
- Pneumococcal disease most commonly presents as a serious infection in the lungs (pneumonia), blood (bacteremia), or brain (meningitis). The annual U.S. case estimate for invasive pneumococcal disease (bacteremia and/or meningitis) is 40,000 and 4,250 deaths.
- Pneumococcal disease most often occurs in older people as well as in people with a predisposing condition (e.g., immunosuppression, pulmonary disease, heart disease, diabetes). The disease rates for adults in these groups can be more than 20 times those for adults without high-risk medical conditions.
- PPSV23 is 60–70% effective in preventing serious pneumococcal disease; it does not provide substantial protection against all types of pneumonia (viral and bacterial). It is not a "pneumonia" vaccine.

Frequently Asked Questions:

Question: Can I get the influenza and pneumococcal vaccines at the same time?

Yes. These vaccines can be given at the same time. If giving two IM vaccinations, separate by one inch in the body muscle to reduce likelihood of local reactions overlapping.

Question: If patients who are in a recommended risk group for PPSV23 or PCV13 aren't sure if they have previously received these vaccines, should healthcare providers vaccinate them?

Yes. If patients do not have a documented vaccination history for these two vaccines and their records are not readily obtainable, you should administer the recommended doses. Extra doses will not cause harm to the patient.

Question: Is an egg allergy a contraindication for PCV13 or PPSV23?

No. Both vaccinations are safe for persons with egg allergies.

Question: If my state has a registry, do I still need to give patients vaccine record cards?

Yes. Patient-held cards are an extremely important part of a person's medical history. The person may move to an area without a registry, and a personal record may be the only vaccination record available. In addition, even within a state, all healthcare providers may not participate in the registry, and the personal record card would be needed.

Question: My patient has had laboratory-confirmed pneumococcal pneumonia. Does he/she still need to be vaccinated with PPSV23?

Yes. There are more than 90 known serotypes of pneumococcus (23 serotypes are in the current vaccine). Infection with one serotype does not necessarily produce immunity to other serotypes. As a result, if the person is a candidate for vaccination, he/she should receive it even after one or more episodes of invasive pneumococcal disease.

Question: Why is pneumococcal vaccination recommended for smokers and asthmatics?

In 2008, the Advisory Committee on Immunization Practices (ACIP) reviewed new information that suggests that asthma is an independent risk factor for pneumococcal disease among adults. ACIP also reviewed new information that demonstrates an increased risk of pneumococcal disease among smokers. Consequently, ACIP recommends to include both asthma and cigarette smoking as risk factors for pneumococcal disease among adults age 19 through 64 years and as indications for PPSV23.

Pneumococcal Vaccination Information Sheet

PCV13 (Prevnar 13®) and PPSV23 (Pneumovax® 23)

THE
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PPSV23 (Pneumovax®23)

PCV13 (Prevnar13®)

Manufacturer:

Merck

www.merckvaccines.com/Products/Pneumovax/Pages/home

How Supplied:

0.5mL Single Dose Vial

Multi-Dose (5 dose Vial)

Storage and Handling:

Refrigerate on Arrival

Store at 2°C to 8°C DO NOT FREEZE

Discard after the expiration date

Special instructions:

None

Route of Administration:

0.5mL IM or SQ

Manufacturer:

Pfizer

http://www.pfizerpro.com/hcp/prevnar13

How Supplied:

Prefilled Syringe

(10 per Package)

Storage and Handling:

Refrigerate on Arrival

Store at 2°C to 8°C

DO NOT FREEZE

Discard after the expiration date

Special instructions:

Shake well to obtain a homogeneous white suspension

Route of Administration:

0.5mL IM ONLY

Insurance Carrier Information:

Medicare www.medicarenhic.com 1-866-801-5304*

BCBS of RI <u>www.bcbsri.com/providers</u> 401-274-4848 1-800-230-9050

UnitedHealthCare <u>www.unitedhealthcareonline.com</u> 1-877-842-3210

RI Department of Health State Supplied Vaccination Program www.health.ri.gov/resources/immunization/

Contraindications and Precautions:

- Do not give PPSV23 or PCV13 to patients who have a history of a serious reaction (e.g., anaphylaxis) after a previous dose of PCV13, PPSV23, or one of their components.
- Do not give PPSV23 and PCV13 simultaneously. For vaccine naive patients, give PCV13 first, followed by a
 dose of PPSV23 ≥ 1 year[†] (unless patient in a population specified by ACIP to require shorter interval, see
 page 1). For patients who have already received PPSV23, give PCV13 12 months after the most recent
 dose of PPSV23.
- Vaccine Co-administration: (1) all vaccines used for routine vaccination in the United States can be given on the same day; (2) an inactivated vaccine can be administered either on the same day as or at any time before or after another inactivated or a live vaccine; and (3) any 2 LIVE vaccines that are not given on the same day must be spaced at least 4 weeks apart. Zoster vaccine is a live, attenuated vaccine; injectable influenza vaccine and pneumococcal polysaccharide vaccine are inactivated vaccines. So these 3 vaccines can be given on the same day or at any time before or after each other. They should be given as separate injections, not combined in the same syringe.

Side Effects:

• Most common side effects from either PPSV23 or PCV13 are soreness and redness at the injection site, lasting 1-2 days.

Drug Information Services 401-874-9188 Monday-Friday 8:30 am - 4:00 pm EST

Acquired from www.immunize.org on September 4, 2013. We thank the Immunization Action Coalition.

^{*} An initial pneumococcal vaccine may be administered to all Medicare beneficiaries who have never received a pneumococcal vaccine under Medicare Part B. A different, second pneumococcal vaccine may be administered 1 year after the first vaccine was administered (i.e., 11 full months have passed following the month in which the last pneumococcal vaccine was administered). Please note that the "interval" between the two different pneumococcal vaccines must be at least 11 full months or greater for Medicare reimbursement, not the shorter "interval" recommended for specific populations identified by ACIP.

[†] Kobayashi M, Bennett NM, Gierke R, et al. Intervals between PCV13 and PPSV23 vaccines: Recommendations of the Advisory Committee in Immunization Practice (ACIP) MMWR Morb Mortal Wkly Rep. 2015; 64(34): 944-947.