

Pneumococcal Vaccination in Adults

Updated December 2024

Use this algorithm to select the recommended pneumococcal vaccine⁹(including timing of doses) in adults who should be vaccinated. For additional guidance, use CDC's PneumoRecs VaxAdvisor App ([mobile](#) or [web](#) version). At the time of publication, the dose for all pneumococcal vaccines for adults is one single dose (i.e., repeat doses of the same vaccine are not recommended).^{1,2}

Assess whether vaccination is recommended.

Vaccination is recommended in the following patients:^{1,2}

- Age ≥50 years old
- Patients between 19 to 49 years old with one of the following medical conditions or risk factors:
 - immunocompromised.^a
 - immunocompetent with a cerebrospinal fluid (CSF) leak or cochlear implant.
 - immunocompetent at high risk of pneumococcal disease.^b

Assess the patient's pneumococcal vaccination status.

No prior vaccination

Prior *Pneumovax 23* only

Prior *Prevnar 13* only

Prior *Prevnar 13* (at any age) AND *Pneumovax 23* at <65 years^{e,f}

Prior *Prevnar 13* (at any age) AND *Pneumovax 23* at ≥65 years

≥1 year later

≥1 year later

≥5 years later

≥5 years later

Option A

Capvaxive or *Prevnar 20*

Option A

Capvaxive or *Prevnar 20*^d

Capvaxive or *Prevnar 20*^{e,f}

Shared decision making:
Capvaxive or *Prevnar 20* may be given.

OR

OR

Option B

Vaxneuvance followed by^c *Pneumovax 23*

Option B

Vaxneuvance^d

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- a. **Immunocompromising conditions** include: chronic kidney failure, congenital or acquired asplenia, congenital or acquired immunodeficiencies (includes B- or T- cell deficiency, complement deficiencies, and phagocytic disorders [excluding chronic granulomatous disease]), generalized malignancy, HIV infection, Hodgkin disease, iatrogenic immunosuppression (diseases requiring treatment with systemic corticosteroids [14 days or longer²], other immunosuppressive drugs [e.g., chemotherapy], radiotherapy), leukemia, lymphoma, multiple myeloma, nephrotic syndrome, congenital or acquired asplenia; hemoglobinopathies (including sickle cell disease) and solid organ transplant.²
- b. **Chronic health conditions increasing pneumococcal disease risk:** alcoholism, chronic liver disease, heart disease (including heart failure, cardiomyopathy), chronic lung disease (including COPD, emphysema, asthma), diabetes, and smoking.²
- c. If *Vaxneuvance* is given to a patient naive to all pneumococcal vaccines, a dose of *Pneumovax 23* (or [if *Pneumovax 23* is not available] *Capvaxive* or *Prevnar 20*) is recommended at least one year after *Vaxneuvance* or (for patients with immunocompromising conditions,^a cochlear implant, or CSF leak can be considered at least eight weeks after *Vaxneuvance*).²
- d. *Capvaxive*, *Prevnar 20*, or *Vaxneuvance* should be given ≥ 1 year after the last *Pneumovax 23* or *Prevnar 13* dose. Or, given ≥ 5 years after if the patient has received both *Pneumovax 23* and *Prevnar 13*.²
- e. Alternatively, for patients with immunocompromising conditions^a who have had both *Prevnar 13* and two doses [one dose for patients with a cochlear implant or cerebrospinal fluid leak] of *Pneumovax 23*, no additional pneumococcal vaccine can be given. These patients should have their pneumococcal vaccine needs reviewed when they turn 50 years.²
- f. Patients 19 to 49 years with chronic health conditions who have had both *Prevnar 13* and *Pneumovax 23* do not require further pneumococcal vaccines. These patients should have their pneumococcal vaccine needs reviewed when they turn 50 years.²
- g. PCV20 = *Prevnar 20*; PCV21 = *Capvaxive*; PCV15 = *Vaxneuvance*; PPSV23 = *Pneumovax 23*; PCV13 = *Prevnar 13*.

References

1. CDC. Pneumococcal vaccine recommendations. October 26, 2024. <https://www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/index.html>. (Accessed October 26, 2024).
2. CDC. Pneumococcal vaccine timing for adults. October 2024. <https://www.cdc.gov/pneumococcal/downloads/vaccine-timing-adults-jobaid.pdf>?CDC_AAref_Val=https://www.cdc.gov/vaccines/vpd/pneumo/downloads/pneumo-vaccine-timing.pdf. (Accessed October 27, 2024).

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