



## Indications for the administration of the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) for adults in the United States

Risk group	Underlying condition	PCV13	PPSV23	
		Recommended	Recommended	Revaccination
<b>Immunocompetent persons</b>	Chronic heart disease*		X	
	Chronic lung disease*		X	
	Diabetes mellitus		X	
	Cerebrospinal fluid leak	X	X	
	Cochlear implant	X	X	
	Alcoholism		X	
	Chronic liver disease, cirrhosis		X	
	Cigarette smoking		X	
	Age ≥65	X	X	Δ
<b>Persons with functional or anatomic asplenia</b>	Sickle cell disease/other hemoglobinopathy	X	X	X <sup>◇</sup>
	Congenital or acquired asplenia	X	X	X <sup>◇</sup>
<b>Immunocompromised persons</b>	Congenital or acquired immunodeficiency <sup>§</sup>	X	X	X <sup>◇</sup>
	Human immunodeficiency virus infection	X	X	X <sup>◇</sup>
	Chronic renal failure	X	X	X <sup>◇</sup>
	Nephrotic syndrome	X	X	X <sup>◇</sup>
	Leukemia	X	X	X <sup>◇</sup>
	Lymphoma	X	X	X <sup>◇</sup>
	Hodgkin disease	X	X	X <sup>◇</sup>

Generalized malignancy	X	X	X <sup>◇</sup>
Iatrogenic immunosuppression <sup>¥</sup>	X	X	X <sup>◇</sup>
Solid organ transplant	X	X	X <sup>◇</sup>
Multiple myeloma	X	X	X <sup>◇</sup>

\* Including congestive heart failure and cardiomyopathies, excluding hypertension.

• Including chronic obstructive pulmonary disease, emphysema, and asthma.

△ All adults aged ≥65 years should receive a dose of PPSV23 even if they were vaccinated when they were less than 65 years of age; however, a minimum interval of five years between PPSV23 doses should be maintained. Those who are receiving PPSV23 for the first time at or after age 65 should receive only a single dose (and do not require revaccination).

◇ Patients <65 years of age who have functional or anatomic asplenia or who are immunocompromised should be revaccinated one time five years after the initial dose, and again at or after age 65 (and at least five years after the previous dose).

§ 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 glucocorticoids and radiation therapy.

Adapted from:

1. Tomczyk S, Bennett NM, Stoecker C, et al. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥65 years: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep* 2014; 63:822.
2. Centers for Disease Control and Prevention. 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; 61:816.
3. Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices. Updated recommendations for prevention of invasive pneumococcal disease among adults using the 23-valent pneumococcal polysaccharide vaccine (PPSV23). *MMWR Morb Mortal Wkly Rep* 2010; 59:1102.
4. Tomblyn M, Chiller T, Einsele H, et al. Guidelines for preventing infectious complications among hematopoietic cell transplantation recipients: a global perspective. *Biol Blood Marrow Transplant* 2009; 15:1143.