

# **2015 Adult Immunization Schedule**

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**for the ACIP Adult Immunization Work Group**

**October 29, 2014**

# Adult Immunizations Work Group

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## **CDC Lead**

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# Background

- ❑ **ACIP updates adult immunization schedule each year**
  - Represents and summarizes existing ACIP policy
  - Monthly meetings of working group and ongoing consultation with vaccine subject matter experts
  - Updates approved policy changes from additional ACIP meeting on August 13 and published in MMWR on September 19
- ❑ **2014 adult schedule also approved by:**
  - American College of Physicians
  - American Academy of Family Physicians
  - American College of Obstetrics and Gynecology
  - American College of Nurse Midwives

## **Proposed Changes in 2015 Adult Immunization Schedule**

- ❑ Figure 1: Replace purple bar (recommended if risk) with yellow bar (recommended) for PCV13 for adults age  $\geq 65$  years**
- ❑ Footnotes: Add PCV13 for adults age  $\geq 65$  years, reformat from vaccine-focused to patient-focused**
- ❑ Contraindications Table: Add changes associated with LAIV and IIV in contraindications and precautions**

# Influenza Vaccination in 2015 Adult Immunization Contraindications

- ❑ **Based on** *Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2014–15 Influenza Season. MMWR 2014;63(32):691-97*
- ❑ **Wording changes in Contraindications**
  - “Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine, or to a previous dose of any influenza vaccine” for LAIV or IIV
  - “In addition, ACIP recommends that LAIV not be used in the following populations
    - Pregnant women;
    - Immunosuppressed persons;
    - Persons with egg allergy;
    - Children aged 2 through 4 years who have asthma or who have had a wheezing episode within the last 12 months;
    - Persons who have taken influenza antiviral medications within the previous 48 hours. Avoid use of these antiviral drugs for 14 days after vaccination.”
- ❑ **Other changes in Contraindications and Precautions**
  - Antiviral use within last 48 hours: Precaution → Contraindication
  - Chronic health conditions: Contraindication → Precaution

# **Pneumococcal Vaccination Recommendations in 2014 Adult Immunization Schedule**

- ❑ **3 footnotes, vaccine-focused**
  - PCV13, PPSV23, Revaccination with PPSV23
- ❑ **Age  $\geq 19y$** 
  - Immunocompromised – PCV13 and 2 PPSV23
    - PPSV23  $\rightarrow \geq 1$  yr  $\rightarrow$  PCV13
    - PCV13  $\rightarrow \geq 8$  wks  $\rightarrow$  PPSV23
    - PPSV23  $\rightarrow \geq 5$  yrs  $\rightarrow$  PPSV23
  - Functional or anatomic asplenia – PCV13, 2 PPSV23
  - CSF leaks and cochlear implants – PCV13, 1 PPSV23
  - Chronic health conditions – PPSV23
  - Smokers, residents of long-term care facilities – PPSV23
- ❑ **Age  $\geq 65y$  – PPSV23**

# Challenges in Incorporating Pneumococcal Vaccination Recommendations in Adult Schedule

- ❑ **More complex timing and intervals depending on age and health condition**
  - Different PCV13→PPSV23 intervals for adults 19–64 yrs immunocompromised ( $\geq 8$  wks) and adults  $\geq 65$  yrs (6–12 mos)
  - 1 dose PPSV23 for adults 19–64 yrs with CSF leaks/cochlear implants and  $\geq 65$  yrs but 2 doses for adults 19–64 yrs with immunocompromise and asplenia
  - Account for adults 19–64 yrs who received pneumococcal vaccine(s) aging in to  $\geq 65$  yrs and needing PCV13 and PPSV23
- ❑ **Crafting easy-to-understand messages for busy healthcare providers**
  - Figures must be interpreted with footnotes
  - Footnotes should contain information needed by providers to implement ACIP recommendations

## Recommended Adult Immunization Schedule—United States - 2015

Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

**Figure 1. Recommended adult immunization schedule, by vaccine and age group<sup>1</sup>**

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza <sup>*2</sup>		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>*3</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					
Varicella <sup>*4</sup>		2 doses					
Human papillomavirus (HPV) Female <sup>*5</sup>		3 doses					
Human papillomavirus (HPV) Male <sup>*5</sup>		3 doses					
Zoster <sup>6</sup>						1 dose	
Measles, mumps, rubella (MMR) <sup>*7</sup>		1 or 2 doses					
Pneumococcal 13-valent conjugate (PCV13) <sup>*8</sup>		1-time dose					
Pneumococcal polysaccharide (PPSV23) <sup>8</sup>		1 or 2 doses					
Meningococcal <sup>*9</sup>		1 or more doses					
Hepatitis A <sup>*10</sup>		2 doses					
Hepatitis B <sup>*11</sup>		3 doses					
<i>Haemophilus influenzae</i> type b (Hib) <sup>*12</sup>		1 or 3 doses					

NEW

\*Covered by the Vaccine Injury Compensation Program

For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)

No recommendation

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at [www.hrsa.gov/vaccinecompensation](http://www.hrsa.gov/vaccinecompensation) or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines) or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 8:00 a.m. - 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).

**Figure 2. Vaccines that might be indicated for adults based on medical and other indications<sup>1</sup>**

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) <sup>4,6,7,8,13</sup>	HIV infection CD4+ T lymphocyte count <sup>4,6,7,8,13</sup>		Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement component deficiencies) <sup>8,12</sup>	Chronic liver disease	Diabetes	Healthcare personnel
				< 200 cells/μL	≥ 200 cells/μL							
Influenza <sup>*2</sup>			1 dose IIV annually			1 dose IIV or LAIV annually	1 dose IIV annually				1 dose IIV or LAIV annually	
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>*3</sup>	1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs										
Varicella <sup>*4</sup>		Contraindicated		2 doses								
Human papillomavirus (HPV) Female <sup>*5</sup>		3 doses through age 26 yrs			3 doses through age 26 yrs							
Human papillomavirus (HPV) Male <sup>*5</sup>		3 doses through age 26 yrs			3 doses through age 21 yrs							
Zoster <sup>6</sup>		Contraindicated		1 dose								
Measles, mumps, rubella (MMR) <sup>*7</sup>		Contraindicated		1 or 2 doses								
Pneumococcal 13-valent conjugate (PCV13) <sup>*8</sup>							1 dose					
Pneumococcal polysaccharide (PPSV23) <sup>8</sup>							1 or 2 doses					
Meningococcal <sup>*9</sup>		1 or more doses										
Hepatitis A <sup>*10</sup>							2 doses					
Hepatitis B <sup>*11</sup>							3 doses					
<i>Haemophilus influenzae</i> type b (Hib) <sup>*12</sup>		post-HSCT recipients only				1 or 3 doses						

\*Covered by the Vaccine Injury Compensation Program

- For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster
- Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)
- No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults ages 19 years and older, as of February 1, 2015. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices ([www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html)). Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.



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# Pneumococcal Vaccination Recommendations in 2015 Adult Immunization Schedule: Footnotes

- ❑ **Adults age  $\geq 65$ y: PCV13 and PPSV23**
- ❑ **General**
  - When indicated, only one dose PCV13 for adults
  - No additional PPSV23 needed if one received at age  $\geq 65$ y
  - Administer PCV13 before PPSV23 (not at same visit)
  - Administer vaccine if history unknown
- ❑ **Pneumococcal vaccine intervals for adults**
  - PPSV23  $\rightarrow \geq 1$  yr  $\rightarrow$  PCV13
  - PCV13  $\rightarrow 6-12$  mos  $\rightarrow$  PPSV23 if age  $\geq 65$ y
    - $\geq 8$  wks  $\rightarrow$  PPSV23 if age 19–64 immunocompromised, asplenia, CSF leaks, cochlear implants
  - PPSV23  $\rightarrow \geq 5$  yrs  $\rightarrow$  PPSV23
- ❑ **3 footnotes condensed to 1 footnote**
  - Change from vaccine-focused to patient-focused recommendations

# Pneumococcal Vaccination Recommendations in 2015 Adult Immunization Schedule: Footnotes (2)

## □ Adults ≥65 years

- Have not received PCV13 or PPSV23, or unknown history PCV13 → PPSV23<sup>1</sup>
- Have not received PCV13 but received PPSV23 at ≥65y PCV13<sup>3</sup>
- Have not received PCV13 but received ≥1 PPSV23 at 19–64y PCV13<sup>3</sup> → PPSV23<sup>1,4</sup>
- Have received PCV13 but not PPSV23 at 19–64y PPSV23<sup>1</sup>
- Have received PCV13 and ≥1 PPSV23 at 19–64y PPSV23<sup>1,4</sup>

## □ Adults 19–64 years immunocompromised, asplenia

- Have not received PCV13 or PPSV23, or unknown history PCV13 → PPSV23<sup>2</sup> → PPSV23<sup>4</sup>
- Have not received PCV13 but received 1 dose PPSV23 PCV13<sup>3</sup> → PPSV23<sup>2,4</sup>
- Have not received PCV13 but received 2 doses PPSV23 PCV13<sup>3</sup>
- Have received PCV13 but not PPSV23 PPSV23<sup>2</sup> → PPSV23<sup>4</sup>
- Have received PCV13 and 1 dose PPSV23 PPSV23<sup>4</sup>

## □ Adults 19–64 years

- CSF leaks, cochlear implants PCV13 → PPSV23<sup>2</sup>
- Chronic health conditions PPSV23
- Smoke cigarettes or reside in long-term facilities PPSV23

<sup>1</sup>6–12 mos after PCV13

<sup>2</sup>≥8 wks after PCV13

<sup>3</sup>≥1y after most recent PPSV23

<sup>4</sup>≥5y after most recent PPSV23

## Next Steps

- ❑ **Revise adult immunization schedule based on ACIP discussion and recommendations**
- ❑ **Review again by SMEs**
- ❑ **Obtain approval by ACP, AAFP, ACOG, ACNM**
- ❑ **Submit revised adult immunization schedule (figures and footnotes) for CDC clearance**
- ❑ **Submit in December to *MMWR* as notice to readers and publish in *Annals of Internal Medicine*, February 2015**
- ❑ **Coordinate adult schedule release with publication of non-influenza vaccination coverage 2013**

**For more information please contact Centers for Disease Control and Prevention**

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National Center for Immunization and Respiratory Diseases

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