2016 Recommended Immunization Schedules for Persons 0-18 Years

MMWR 2016:65:86-87.

Pediatrics on line 2-1-2016

Available at:

http://www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6504.pdf

http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html

http://pediatrics.aappublications.org/content/pediatrics/early/2016/01/28/peds.2015-4531.full.pdf

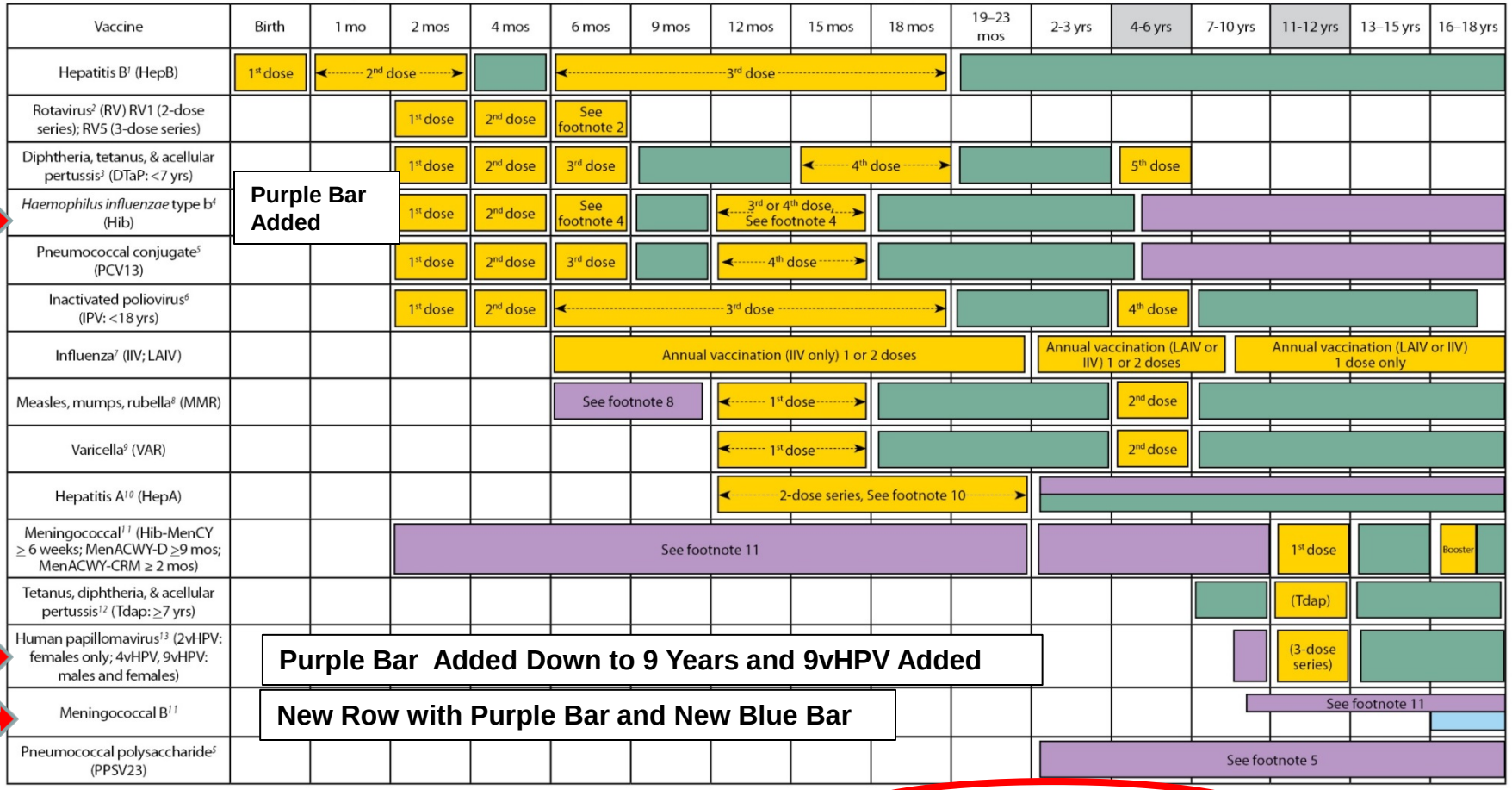
2016 Childhood and Adolescent Immunization Schedule Changes

- **Order:** The order of vaccines has been changed to group vaccines by recommended age of administration.
- **Hib:** Purple bar added for children ages 5 through 18 years to denote the recommendation to vaccinate certain unimmunized high-risk children in this age group.
- **HPV:** 9vHPV added. Purple bar added for children starting at 9 years of age with a history of sexual abuse.
- **Meningococcal B Vaccines:** New row added for this vaccine
  - Purple bar added to indicate the recommendation to vaccinate certain high-risk people ages 10 years and older.
  - Blue bar has been added to indicate the recommendation for permissive administration to non-high risk groups subject to individual clinical decision-making for those 16 through 18 years.
    - This blue color is a brand new category on the schedule to reflect the new 'permissive type' of recommendation.

Figure 1. Recommended immunization schedule for persons aged 0 through 18 years – United States, 2016.

(FOR THOSE WHO FALL BEHIND OR START LATE, SEE THE CATCH-UP SCHEDULE [FIGURE 2]).

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1. To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are shaded.



This schedule includes recommendations in effect as of January 1, 2016. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Vaccination providers should consult the relevant Advisory Committee on Immunization Practices (ACIP) statement for detailed recommendations, available online at http://www.cdc.gov/vaccines/hcp/acip-recs/index.html. Clinically significant adverse events that follow vaccination should be reported to the Vaccine Adverse Event Reporting System (VAERS) online (http://www.vaers.hhs.gov) or by telephone (800-822-7967). Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for vaccination, is available from CDC online (http://www.cdc.gov/vaccines/recs/vac-admin/contraindications.htm) or by telephone (800-CDC-INFO [800-232-4636]).

This schedule is approved by the Advisory Committee on Immunization Practices (http//www.cdc.gov/vaccines/acip), the American Academy of Pediatrics (http://www.aap.org), the American Academy of Family Physicians (http://www.aafp.org), and the American College of Obstetricians and Gynecologists (http://www.acog.org).

NOTE: The above recommendations must be read along with the footnotes of this schedule.

New Blue Bar

http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html

DPH 2016

FIGURE 2. Catch-up immunization schedule for persons aged 4 months through 18 years who start late or who are more than 1 month behind —United States, 2016.

The figure below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age. Always use this table in conjunction with Figure 1 and the footnotes that follow.

Children age 4 months through 6 years					
Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B[1]	Birth	4 weeks	8 weeks *and* at least 16 weeks after first dose. Minimum age for the final dose is 24 weeks.		
Rotavirus[2]	6 weeks	4 weeks	4 weeks[2]		
Diphtheria, tetanus, and acellular pertussis[3]	6 weeks	4 weeks	4 weeks	6 months	6 months[3]
Haemophilus influenzae type b[4]	6 weeks	4 weeks if first dose was administered before the 1st birthday. 8 weeks (as final dose) if first dose was administered at age 12 through 14 months. No further doses needed if first dose was administered at age 15 months or older.	4 weeks[4] if current age is younger than 12 months **and** first dose was administered at younger than age 7 months, **and** at least 1 previous dose was PRP-T (ActHib, Pentacel) or unknown. 8 weeks *and* age 12 through 59 months (as final dose)[4] • if current age is younger than 12 months **and** first dose was administered at age 7 through 11 months (wait until at least 12 months old); OR • if current age is 12 through … **and** first dose was admi… younger than 15 months OR • if both doses were PRP-… **and** were administered … No further doses needed if previous dose was adminis…	8 weeks (as final dose) This dose only necessary for children age 12 …	
Pneumococcal[5]	6 weeks	4 weeks if first dose administered before the 1st birthday. 8 weeks (as final dose for healthy children) if first dose was administered at the 1st birthday or after. No further doses needed for healthy children if first dose administered at age 24 months or older.	4 weeks if current age is younger than … 8 weeks (as final dose for hea… if previous dose given betwe… OR if current age is 12 months o… No further doses needed for … older.		
Inactivated poliovirus[6]	6 weeks	4 weeks[6]	4 weeks[6]		
Measles, mumps, rubella[8]	12 months	4 weeks			
Varicella[9]	12 months	3 months			
Hepatitis A[10]	12 months	6 months			
Meningococcal[11] (Hib-MenCY ≥ 6 weeks; MenACWY-D ≥9 mos; MenACWY-CRM ≥ 2 mos)	6 weeks	8 weeks[11]	See footnote 11		
Children and adole…					
Meningococcal[11] (Hib-MenCY ≥ 6 weeks; MenACWY-D ≥9 mos; MenACWY-CRM ≥ 2 mos)	Not Applicable (N/A)	8 weeks[11]			
Tetanus, diphtheria; tetanus, diphtheria, and acellular pertussis[12]	7 years[12]	4 weeks	4 weeks if first dose of DTaP/DT was administered before the 1st birthday. 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday.	…if first dose of DTaP/DT was adminis…ed before the 1st birthday.	
Human papillomavirus[13]	9 years	Routine dosing intervals are recommended.[13]			
Hepatitis A[10]	N/A	6 months			
Hepatitis B[7]	N/A	4 weeks	8 weeks and …		
Inactivated poliovirus[6]	N/A	4 weeks	4 weeks[6]	6 months[6]	
Meningococcal[11]	N/A	8 weeks[11]			
Measles, mumps, rubella[8]	N/A	4 weeks			
Varicella[9]	N/A	3 months if younger than age 13 years. 4 weeks if age 13 years or older.			

4 weeks
if first dose of DTaP/DT was administered before the 1st birthday.

6 months (as final dose)
if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday.

New 'Generic' Meningococcal Row

NOTE: The above recommendations must be read along with the footnotes of this schedule.

http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html

Footnotes — Recommended immunization schedule for persons aged 0 through 18 years—United States, 2016

For further guidance on the use of the vaccines mentioned below, see: http://www.cdc.gov/vaccines/hcp/acip-recs/index.html.
For vaccine recommendations for persons 19 years of age and older, see the Adult Immunization Schedule.

Additional information

- For contraindications and precautions to use of a vaccine and for additional information regarding that vaccine, vaccination providers should consult the relevant ACIP statement available online at http://www.cdc.gov/vaccines/hcp/acip-recs/index.html.
- For purposes of calculating intervals between doses, 4 weeks = 28 days. Intervals of 4 months or greater are determined by calendar months.
- Vaccine doses administered 4 days or less before the minimum interval are considered valid. Dose
valid doses and should be repeated as age-appropriate. The repeat dose should be spaced after th
on Immunization and Reports / Vol. 60 / No. 2; Table 1. *Recommended and minimum ages and interva*
- Information on travel vaccine requirements and recommendations is available at http://wwwnc.c
- For vaccination of persons with primary and secondary immunodeficiencies, see Table 13, *"Vaccin*
(ACIP), available at http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf.; and American Academy
Book: 2015 report of the Committee on Infectious Diseases. 30th ed. Elk G

1. **Hepatitis B (HepB) vaccine. (Mini**

Routine vaccination:

At birth:

- Administer monovalent HepB vaccine to all newborns before hospital disch
- For infants born to hepatitis B surface antigen (HBsAg)-positive mothers, administer Hep
0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. These infants should be teste
for HBsAg and antibody to HBsAg (anti-HBs) at age 9 through 18 months (preferably at the next well-
child visit) or 1 to 2 months after completion of the HepB series if the series was delayed; CDC recently
recommended testing occur at age 9 through 12 months; see http://www.cdc.gov/mmwr/preview/
mmwrhtml/mm6439a6.htm.
- If mother's HBsAg status is unknown, within 12 hours of birth administer HepB vaccine regardless of birt
weight. For infants weighing less than 2,000 grams, administer HBIG in addition to HepB vaccine within
12 hours of birth. Determine mother's HBsAg status as soon as possible and, if mother is HBsAg-positive,
also administer HBIG for infants weighing 2,000 grams or more as soon as possible, but no later than age
7 days.

Doses following the birth dose:

- The second dose should be administered at age 1 or 2 months. Monovalent HepB vaccine should be use
for doses administered before age 6 weeks.
- Infants who did not receive a birth dose should receive 3 doses of a HepB-containing vaccine on a
schedule of 0, 1 to 2 months, and 6 months starting as soon as feasible. See Figure 2.
- Administer the second dose 1 to 2 months after the first dose (minimum interval of 4 weeks), administer
the third dose at least 8 weeks after the second dose AND at least 16 weeks after the **first** dose. The final
(third or fourth) dose in the HepB vaccine series should be administered **no earlier than age 24 weeks**.
- Administration of a total of 4 doses of HepB vaccine is permitted when a combination vaccine containing
HepB is administered after the birth dose.

Catch-up vaccination:

- Unvaccinated persons should complete a 3-dose series.
- A 2-dose series (doses separated by at least 4 months) of adult formulation Recombivax HB is licensed for
use in children aged 11 through 15 years.
- For other catch-up guidance, see Figure 2.

2. **Rotavirus (RV) vaccines. (Minimum age: 6 weeks for both RV1 [Rotarix] and RV5 [RotaTeq])**

Routine vaccination:

Administer a series of RV vaccine to all infants as follows:

1. If Rotarix is used, administer a 2-dose series at 2 and 4 months of age.
2. If RotaTeq is used, administer a 3-dose series at ages 2, 4, and 6 months.
3. If any dose in the series was RotaTeq or vaccine product is unknown for any dose in the series, a total of 3 doses of RV vaccine should be administered.

Catch-up vaccination:

- The maximum age for the first dose in the series is 14 weeks, 6 days; vaccination should not be initiated for infants aged 15 weeks, 0 days or older.
- The maximum age for the final dose in the series is 8 months, 0 days.
- For other catch-up guidance, see Figure 2.

3. **Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine. (Minimum age: 6 weeks. Exception: DTaP-IPV [Kinrix, Quadracel]: 4 years)**

Routine vaccination:

- Administer a 5-dose series of DTaP vaccine at ages 2, 4, 6, 15 through 18 months, and 4 through 6 years. The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.
- Inadvertent administration of 4th DTaP dose early: If the fourth dose of DTaP was administered at least 4 months, but less than 6 months, after the third dose of DTaP, it need not be repeated.

later and a third (and final) dose at age 12 through 15 months or 8 weeks after second dose, whichever is later.

- If first dose is administered before the first birthday and second dose administered at younger than 15 months, a third (and final) dose should be administered 8 weeks later.
- For unvaccinated children aged 15 months or older, administer only 1 dose.
- For other catch-up guidance, see Figure 2. For catch-up guidance related to MenHibrix, please see the meningococcal vaccine footnotes and also *MMWR* February 28, 2014 / 63(RR01);1-13, available at http://www.cdc.gov/mmwr/PDF/rr/rr6301.pdf.

Vaccination of persons with high-risk conditions:

- Children aged 12 through 59 months who are at increased risk for Hib disease, including chemotherapy recipients and those with anatomic or functional asplenia (including sickle cell disease), human immunodeficiency virus (HIV) infection, immunoglobulin deficiency, or early component complement deficiency, who have received either no doses or only 1 dose of Hib vaccine before 12 months of age, should receive 2 additional doses of Hib vaccine 8 weeks apart; children who received 2 or more doses of Hib vaccine before 12 months of age should receive 1 additional dose.
- For patients younger than 5 years of age undergoing chemotherapy or radiation treatment who received a Hib vaccine dose(s) within 14 days of starting therapy or during therapy, repeat the dose(s) at least 3 months following therapy completion.
- Recipients of hematopoietic stem cell transplant (HSCT) should be revaccinated with a 3-dose regimen of Hib vaccine starting 6 to 12 months after successful transplant, regardless of vaccination history; doses should be administered at least 4 weeks apart.
- A single dose of any Hib-containing vaccine should be administered to unimmunized* children and adolescents 15 months of age and older undergoing an elective splenectomy; if possible, vaccine should be administered at least 14 days before procedure.

Hepatitis B (HepB) vaccine. (Minimum age: birth)
Routine vaccination:
At birth:

- Administer monovalent HepB vaccine to all newborns before hospital discharge.
- For infants born to hepatitis B surface antigen (HBsAg)-positive mothers, administer HepB vaccine and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. These infants should be tested for HBsAg and antibody to HBsAg (anti-HBs) at age 9 through 18 months (preferably at the next well-child visit) or 1 to 2 months after completion of the HepB series if the series was delayed; CDC recently recommended testing occur at age 9 through 12 months; see http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6439a6.htm

Updates in Meningococcal Vaccination

- **MenACWY/MPSV4 and MenB vaccines listed separately in figures in schedule**
- **Recommendation for either 2-dose series MenB-4C (Bexsero) or 3-dose series MenB-FHbp (Trumenba)**
  - Asplenia or complement deficiencies, microbiologists, outbreak settings
    - Complement deficiencies includes persons with inherited or chronic deficiencies in C3, C5-9, properidin, factor D, factor H, or taking eculizumab (Soliriis®)
- **'Permissive' recommendation for MenB vaccine (Category B)**
  - "Young adults aged 16–23 years (preferred age 16–18 years) **may be vaccinated to provide short-term** protection against most strains of MenB disease."
  - Represented by new blue bar in child schedule. (But, only a purple bar in adult schedule.)

New

CDC. MMWR 2016:65:86-87.

Updates in Meningococcal Vaccination (2)

- **Additional notes for MenB**
  - MenB not recommended for travelers
  - No recommendation for MenB revaccination
  - HIV infection is not indication for routine vaccination with MenACWY or MenB vaccine.
  - MenB-4C or MenB-FHbp vaccine may be administered concomitantly with MenACWY vaccine, but at a different anatomic site if feasible.
  - The two MenB vaccines are **not** interchangeable; the same vaccine product must be used for all doses.
- **MenB added to Contraindications and Precautions Table**
  - Contraindications: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
  - Precautions: Moderate or severe acute illness with or without fever

CDC. MMWR 2016:65:86-87.

2016 Adult Immunization Schedule

MMWR 2016:65:88-90.

Annals of Internal Medicine 2016;164:184-194.

Available at:
http://www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6504a5.pdf
http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf.
http://annals.org/article.aspx?articleid=2484895

2016 Adult Immunization Schedule Changes

Pneumococcal Vaccines

- Intervals between PCV13 and PPSV23 vaccines has been changed for healthy adults ≥65 years to **at least 1 year**
- Several other updates will be covered in a later slide

Serogroup B Meningococcal Vaccines

- **'Permissive' use** in young adults aged 16–23 years (preferred age 16–18 years) **to provide short-term** protection against most strains of MenB disease"
  - This language is in Footnotes. (But there is **NO** Blue Bar like in the Childhood Schedule.)
- Recommended for persons ≥10 years at increased risk for serogroup B meningococcal disease
  - asplenia or complement deficiencies, microbiologists, outbreak settings

HPV Vaccines

- 9-Valent Human Papillomavirus (9vHPV) vaccine added
- New HPV nomenclature incorporated
- Several other updates will be covered on a later slide

CDC. MMWR 2016:65:88-90.

Recommended Adult Immunization Schedule—United States - 2016

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 immunization schedule for adults aged 19 years or older, by vaccine and age group[1]

VACCINE ▼ / AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza*,[2]	1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap)*,[3]	Substitute Tdap for Td once, then Td booster every 10 yrs					
Varicella*,[4]	2 doses					
Human papillomavirus (HPV) Female*,[5]	3 doses					
Human papillomavirus (HPV) Male*,[5]	3 doses					
Zoster[6]					1 dose	
Measles, mumps, rubella (MMR)*,[7]	1 or 2 doses depending on indication					
Pneumococcal 13-valent conjugate (PCV13)*,[8]	1 dose					
Pneumococcal 23-valent polysaccharide (PPSV23)[8]	1 or 2 doses depending on indication					1 dose
Hepatitis A*,[9]	2 or 3 doses depending on vaccine					
Hepatitis B*,[10]	3 doses					
Meningococcal 4-valent conjugate (MenACWY) or polysaccharide (MPSV4)*,[11]	1 or more doses depending on indication					
Meningococcal B (MenB)[11]	2 or 3 doses depending on vaccine					
Haemophilus influenzae type b (Hib)*,[12]	1 or 3 doses depending on indication					

*Covered by the Vaccine Injury Compensation Program

New Row with Purple Bar. But, NO Blue Bar.

- Recommended for all persons who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection; zoster vaccine is recommended regardless of past episode of zoster
- Recommended for persons with a risk factor (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 or by telephone, 800-822-7967.

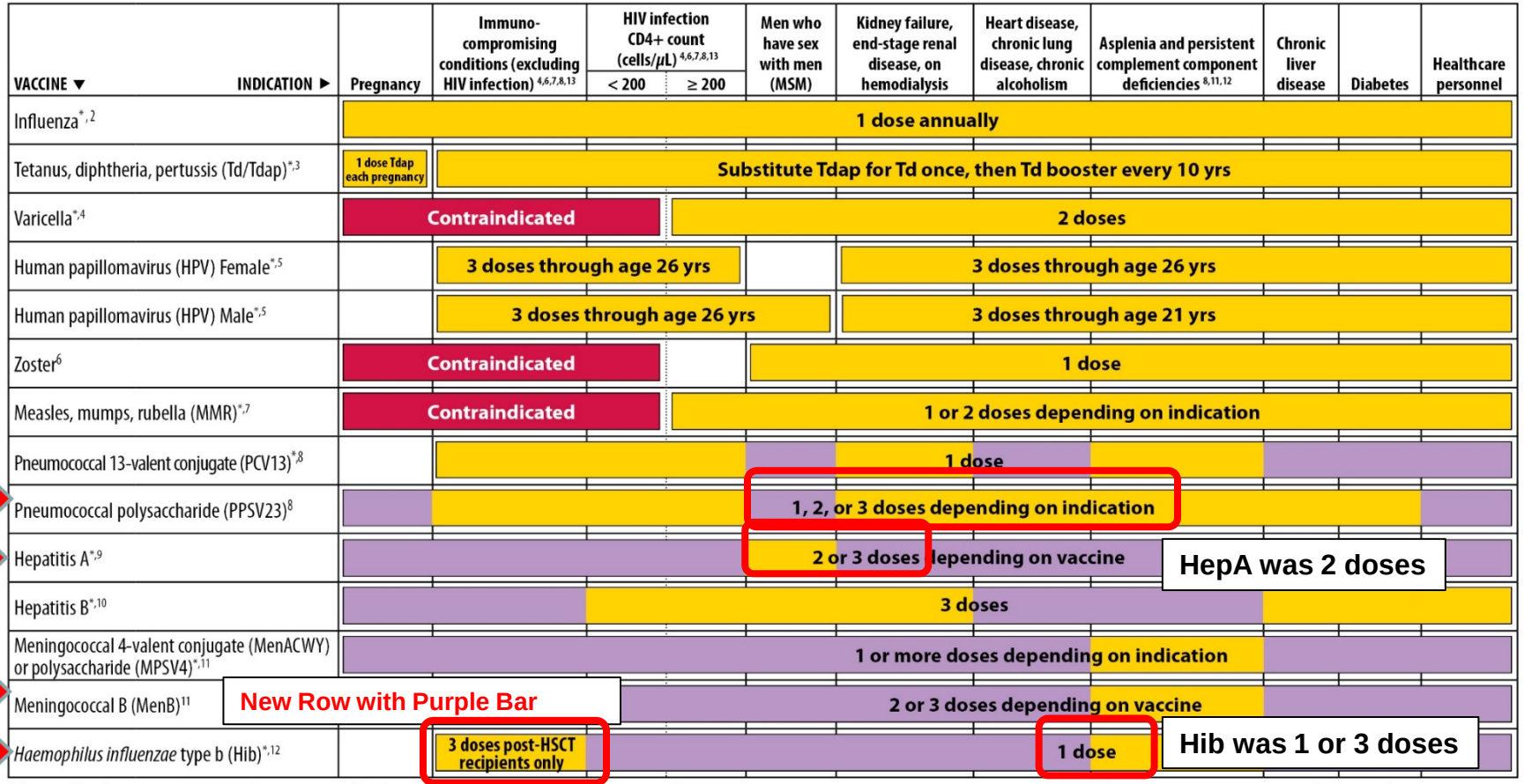
Information on how to file a Vaccine Injury Compensation Program claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at www.cdc.gov/vaccines 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 America College of Physicians (ACP), the American College of Obstetricians and Gynecologists (ACOG) and the American College of Nurse-Midwives (ACNM).

Figure 2. Vaccines that might be indicated for adults aged 19 years or older based on medical and other indications[1]



Labels and text simplified and clarified in many places .

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults aged ≥19 years, as of February 2016. 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). 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.

http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf.

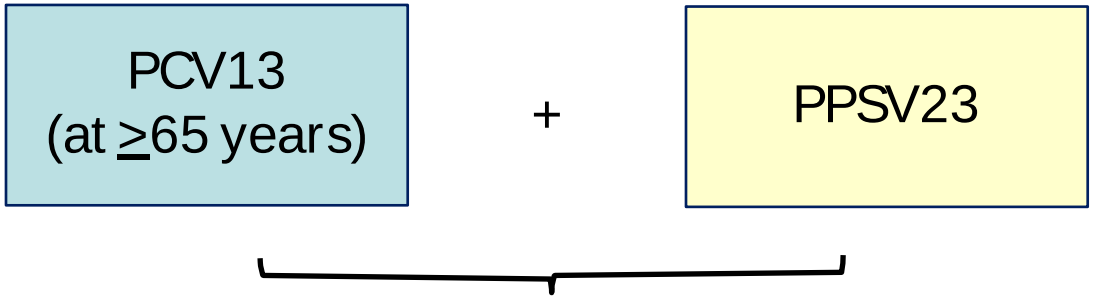
Updates in Pneumococcal Vaccination

- **Intervals between PCV13 and PPSV23**
  - PCV13 → PPSV23 interval is **at least 1 year** for immunocompetent adults aged ≥65 years (was 6-12 months)
  - For adults with immunocompromising conditions, asplenia, CSF leak, or cochlear implant, the interval remains at least 8 weeks
- **Correction of errata**
  - "Adults aged ≥19 years with immunocompromising conditions" replaces "adults aged 19 through 64 years with immunocompromising conditions"
  - "Adults aged 19 through 64 years who smoke cigarettes or reside in nursing home or long-term care facilities: Administer PPSV23" removed
    - "Adults aged 19 through 64 years who… reside in nursing home" removed from list of adults recommended for PPSV23
    - "Adults aged 19 through 64 years who smoke cigarettes" remains indication for PPSV23

CDC. MMWR 2016:65:88-90.

ACIP Recommendations for PCV13 and PPSV23 for Adults 65 Years and Older

- Pneumococcal-naïve or Unknown vaccination history
- Healthy adult



- If a dose of PPSV23 cannot be given at ≥1 year later, it should be given at the next visit.
- Minimum interval = 8 weeks
- If doses of PPSV23 and PCV13 are inadvertently given on the same day or earlier than the recommended interval, those doses do **not** need to be repeated.

For adults ≥19 years with immunocompromising conditions, asplenia, CSF leak, or cochlear implant, the interval remains at least 8 weeks.

CDC. MMWR 2015;64:944.

Updates in HPV Vaccination

- Available HPV vaccines
  - New nomenclature and 9 valent HPV (9vHPV added)
  - Females: 2vHPV, 4vHPV, 9vHPV
  - Males: 4vHPV, 9vHPV
- For females aged 19–26 years, 3-dose series of 2vHPV, 4vHPV, or 9vHPV is recommended
- For males aged 19–21 years, 3-dose series of 4vHPV or 9vHPV is recommended
- For MSM and immunocompromised men (including those with HIV infection) through age 26 years, 3-dose series of 4vHPV or 9vHPV is recommended

CDC. MMWR 2016:65:88-90.

Contraindications

TABLE. Contraindications and precautions to commonly used vaccines in adults [1†]

Vaccine	Contraindications	Precautions
Influenza, inactivated (IIV)[2]	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine; or to a vaccine component, including egg protein	• Moderate or severe acute illness with • History of Guillain-Barré Syndrome w vaccination • Adults with egg allergy of any severit only allergy to eggs may receive IIV w
Influenza, recombinant (RIV)	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of RIV or to a vaccine component. RIV does not contain any egg protein[2]	• Moderate or severe acute illness with • History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination
Influenza, live attenuated (LAIV)[2,3]	• Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine, or to a previous dose of any influenza vaccine • In addition, ACIP recommends that LAIV not be used in the following populations: — pregnant women — immunosuppressed adults — adults with egg allergy of any severity — adults who have taken influenza antiviral medications (amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours; avoid use of these antiviral drugs for 14 days after vaccination	• Moderate or severe acute illness with or without fever. • History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination • Asthma in persons aged 5 years and older • Other chronic medical conditions, e.g., other chronic lung diseases, chronic cardiovascular disease (excluding isolated hypertension), diabetes, chronic renal or hepatic disease, hematologic disease, neurologic disease, and metabolic disorders
Tetanus, diphtheria, pertussis (Tdap); tetanus, diphtheria (Td)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • For pertussis-containing vaccines: encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures) not attributable to another identifiable cause within 7 days of administration of a previous dose of Tdap, diphtheria and tetanus toxoids and pertussis (DTP), or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine	• Moderate or severe acute illness with or without fever • Guillain-Barré Syndrome within 6 weeks after a previous dose of tetanus toxoid-containing vaccine • History of Arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine • For pertussis-containing vaccines: progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized
Varicella[4]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy,[4] or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised) • Pregnancy	• Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)[5] • Moderate or severe acute illness with or without fever • Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Human papillomavirus (HPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever • Pregnancy
Zoster[3]	• Severe allergic reaction (e.g., anaphylaxis) to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, or long-term immunosuppressive therapy,4 or patients with HIV infection who are severely immunocompromised) • Pregnancy	• Moderate or severe acute illness with or without fever • Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Measles, mumps, rubella (MMR)[3]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy,[4] or patients with HIV infection who are severely immunocompromised) • Pregnancy	• Moderate or severe acute illness with or without fever • Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)[5] • History of thrombocytopenia or thrombocytopenic purpura • Need for tuberculin skin testing[6]
Pneumococcal conjugate (PCV13)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including to any vaccine containing diphtheria toxoid	• Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (PPSV23)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Hepatitis A	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Hepatitis B	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Meningococcal, conjugate (MenACWY); meningococcal, polysaccharide (MPSV4)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Meningococcal serogroup B (MenB)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
(Hib)	vaccine component	

1. Vaccine package inserts and the full ACIP recommendations for these vaccines should be consulted for additional information on vaccine-related contraindications and precautions and for more information on vaccine excipients. Events or conditions listed as precautions should be reviewed carefully. Benefits of and risks for administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered. A contraindication is a condition in a recipient that increases the chance of a serious adverse reaction. Therefore, a vaccine should not be administered when a contraindication is present.
2. For more information on use of influenza vaccines among persons with egg allergies and a complete list of conditions that CDC considers to be reasons to avoid receiving LAIV, see CDC. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2015–16 Influenza Season. *MMWR* 2015;64(30):818-25.
3. LAIV, MMR, varicella, or zoster vaccines can be administered on the same day. If not administered on the same day, live vaccines should be separated by at least 28 days.
4. Immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg of prednisone or the equivalent. Vaccination should be deferred for at least 1 month after discontinuation of such therapy. Providers should consult ACIP recommendations for complete information on the use of specific live vaccines among persons on immune-suppressing medications or with immune suppression because of other reasons.
5. Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered. See CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2011;60(No. RR-2). Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.
6. Measles vaccination might suppress tuberculin reactivity temporarily. Measles-containing vaccine may be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for at least 4 weeks after the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.

* Adapted from CDC. Table 6. Contraindications and precautions to commonly used vaccines. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices. MMWR 2011;60(No. RR-2):40–41 and from Hamborsky J, Kroger, A, Wolfe C, eds. Appendix A. Epidemiology and prevention of vaccine preventable diseases. 13th ed. Washington, DC: Public Health Foundation, 2015. Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

† Regarding latex allergy, consult the package insert for any vaccine administered

U.S. Department of Health and Human Services
Centers for Disease

New

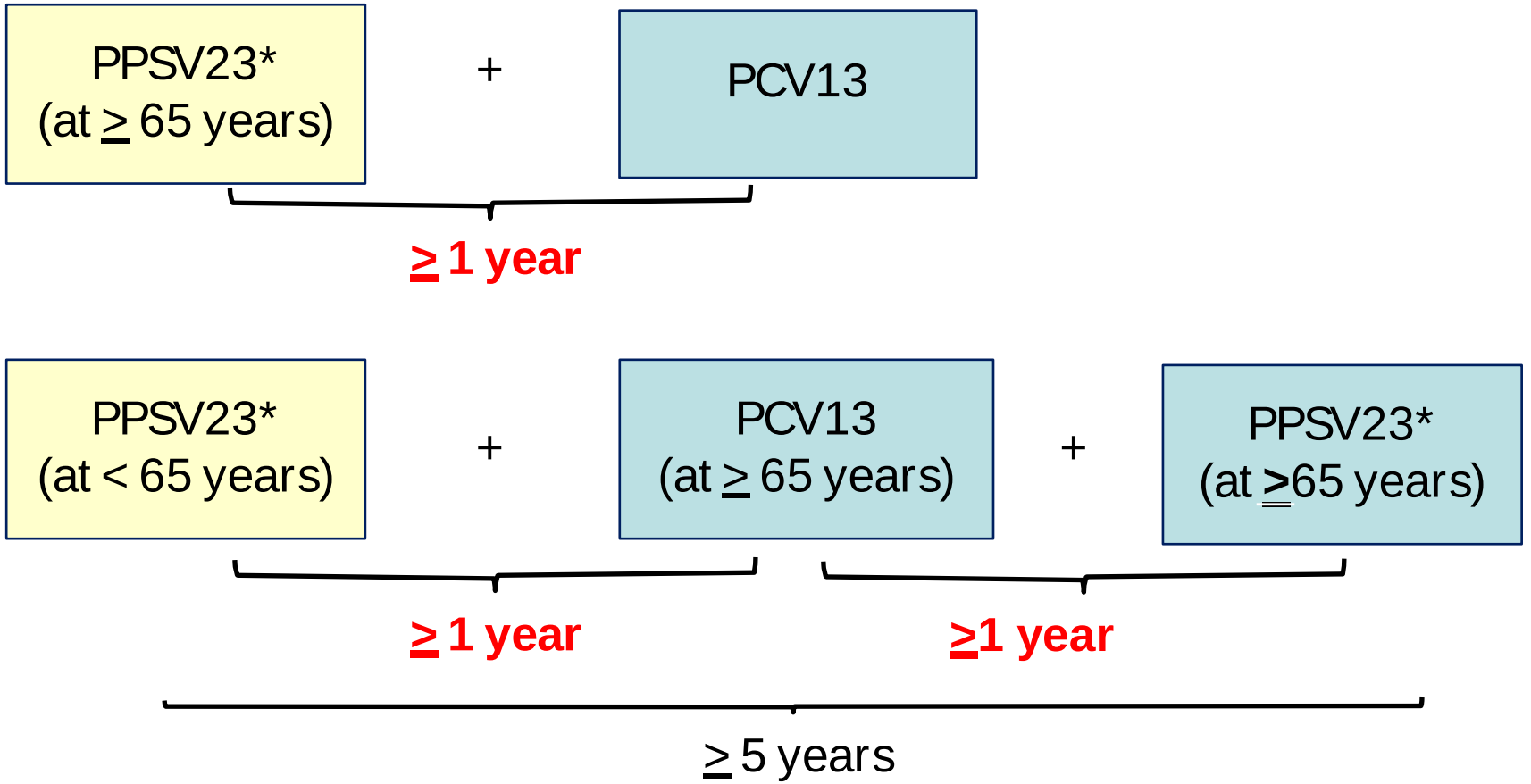
A row added for meningococcal B vaccines

http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf

EXTRAS

ACIP Recommendations for PCV13 and PPSV23 for Adults 65 Years and Older

- Previously received one or more doses of PPSV23
- Healthy adult



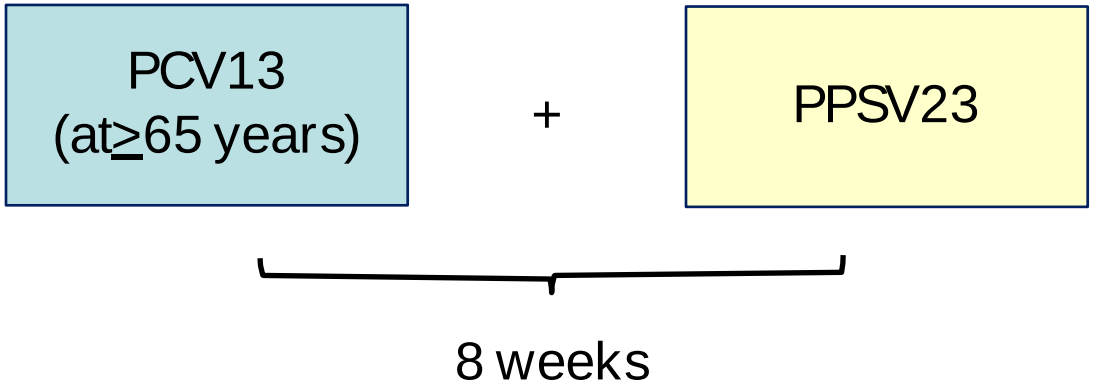
* Doses already administered

Note: If doses of PPSV23 and PCV13 are inadvertently given on the same day or earlier than the recommended interval, those doses do **not** need to be repeated.

CDC. MMWR 2015;64:944.

ACIP Recommendations for PCV13 and PPSV23 for Adults ≥19 Years and Older

- Pneumococcal-naïve or unknown vaccination history
- ***High-risk adult****



- Minimum interval = 8 weeks
- If doses of PPSV23 and PCV13 are inadvertently given on the same day or earlier than the recommended interval, those doses do **not** need to be repeated.

* Immunocompromised, functional or anatomic asplenia, CSF fluid leaks or cochlear implants.