

Figure 2. Recommended Immunization Schedule for Persons Ages 7 through 18 Years, U.S., 2011

For those who fall behind or start late, see the schedule below and the catch-up schedule (Table 1).

Vaccine ▼	Age ►	7–10 yrs	11–12 yrs	13–18 yrs
Tetanus, Diphtheria, Pertussis ¹			Tdap	Tdap
Human Papillomavirus ²	See footnote 2		HPV (3-doses) (females)	HPV Series
Meningococcal ³		MCV4	MCV4	MCV4
Influenza ⁴		Influenza (Yearly)		
Pneumococcal ⁵		Pneumococcal		
Hepatitis A ⁶		HepA Series		
Hepatitis B ⁷		HepB Series		
Inactivated Poliovirus ⁸		IPV Series		
Measles, Mumps, Rubella ⁹		MMR Series		
Varicella ¹⁰		Varicella Series		

Range of recommended ages for all children

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

This schedule includes recommendations in effect as of December 21, 2010. Any dose not given at the recommended age should be given 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. Considerations should include provider assessment, patient preference, and

the potential for adverse events. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations: www.cdc.gov/vaccines/pubs/acip-list.htm. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or by telephone, 800-822-7967.

1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap). (Minimum age: 10 years for Boostrix and 11 years for Adacel)

- Persons ages 11 through 18 years who have not received Tdap should receive a dose followed by Td booster doses every 10 years thereafter.
- Persons ages 7 through 10 years who are not fully immunized against pertussis (including those never vaccinated or with unknown pertussis vaccination status) should receive a single dose of Tdap. Refer to the catch-up schedule if additional doses of tetanus and diphtheria toxoid-containing vaccine are needed.
- Tdap can be given regardless of the interval since the last tetanus and diphtheria toxoid-containing vaccine.

2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)

- Quadrivalent HPV vaccine (HPV4) or bivalent HPV vaccine (HPV2) is recommended for the prevention of cervical precancers and cancers in females.
- HPV4 is recommended for prevention of cervical precancers, cancers, and genital warts in females.
- HPV4 may be given in a 3-dose series to males ages 9 through 18 years to reduce their likelihood of acquiring genital warts.
- Give the second dose 1 to 2 months after the first dose and the third dose 6 months after the first dose (at least 24 weeks after the first dose).

3. Meningococcal conjugate vaccine, quadrivalent (MCV4). (Minimum age: 2 years)

- Give MCV4 at age 11 through 12 years with a booster dose at age 16 years.
- Give 1 dose at age 13 through 18 years if not previously vaccinated.
- Persons who received their first dose at age 13 through 15 years should receive a booster dose at age 16 through 18 years.
- Give 1 dose to previously unvaccinated college freshmen living in a dormitory.
- Give 2 doses at least 8 weeks apart to children ages 2 through 10 years with persistent complement component deficiency and anatomic or functional asplenia, and 1 dose every 5 years thereafter.
- Persons with HIV infection who are vaccinated with MCV4 should receive 2 doses at least 8 weeks apart.
- Give 1 dose of MCV4 to children ages 2 through 10 years who travel to countries with highly endemic or epidemic disease and during outbreaks caused by a vaccine serogroup.
- Give MCV4 to children at continued risk of meningococcal disease who were previously vaccinated with MCV4 or meningococcal polysaccharide vaccine after 3 years (if first dose given at age 2 through 6 years) or after 5 years (if first dose given at age 7 years or older).

4. Influenza vaccine (seasonal).

- For healthy nonpregnant persons ages 7 through 18 years (i.e., those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used.
- Give 2 doses (separated by at least 4 weeks) to children ages 6 months through 8 years

who are receiving seasonal influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but received only 1 dose.

- Children ages 6 months through 8 years who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010–11 seasonal influenza vaccine. See *MMWR* 2010;59(RR-8):33–34.

5. Pneumococcal vaccines.

- A single dose of 13-valent pneumococcal conjugate vaccine (PCV13) may be given to children ages 6 through 18 years who have functional or anatomic asplenia, HIV infection or other immunocompromising condition, cochlear implant or CSF leak. See *MMWR* 2010;59(No. RR–11).
- The dose of PCV13 should be given at least 8 weeks after the previous dose of PCV7.
- Give pneumococcal polysaccharide vaccine at least 8 weeks after the last dose of PCV to children age 2 years or older with certain underlying medical conditions, including a cochlear implant. A single revaccination should be given after 5 years to children with functional or anatomic asplenia or an immunocompromising condition.

6. Hepatitis A vaccine (HepA).

- Give 2 doses at least 6 months apart.
- HepA is recommended for children older than age 23 months who live in areas where vaccination programs target older children, or who are at increased risk for infection, or for whom immunity against hepatitis A is desired.

7. Hepatitis B vaccine (HepB).

- Give the 3-dose series to those not previously vaccinated. For those with incomplete vaccination, follow the catch-up schedule (Table 1).
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB is licensed for children ages 11 through 15 years.

8. Inactivated poliovirus vaccine (IPV).

- The final dose in the series should be given on or after the fourth birthday and at least 6 months following the previous dose.
- If both OPV and IPV were given as part of a series, a total of 4 doses should be given, regardless of the child's current age.

9. Measles, mumps, and rubella vaccine (MMR).

- The minimum interval between the 2 doses of MMR is 4 weeks.

10. Varicella vaccine.

- For persons ages 7 through 18 years without evidence of immunity (see *MMWR* 2007;56 [No. RR-4]), give 2 doses if not previously vaccinated or the second dose if only 1 dose has been given.
- For persons ages 7 through 12 years, the minimum interval between doses is 3 months. However, if the second dose was given at least 4 weeks after the first dose, it can be accepted as valid.
- For persons age 13 years and older, the minimum interval between doses is 4 weeks.