



Recommended Childhood and Adolescent Immunization Schedules: United States, 2019

COMMITTEE ON INFECTIOUS DISEASES

The 2019 recommended childhood and adolescent immunization schedules have been approved by the American Academy of Pediatrics (AAP), the Advisory Committee on Immunization Practices and the Centers for Disease Control and Prevention (CDC), the American Academy of Family Physicians, and the American College of Obstetricians and Gynecologists. The schedules are revised annually to reflect current recommendations for the use of vaccines licensed by the US Food and Drug Administration.

The 2019 childhood and adolescent immunization schedule has been updated to ensure consistency between the format of the childhood and adolescent and adult immunization schedules. Changes have been made to the cover page, including guidance for use of the schedule as well as a list of links to “Helpful information.” Similar to last year, the cover page includes a table with alphabetical listing of vaccines, approved abbreviations for each vaccine, and vaccine trade names.

Table 1 contains the recommended immunization schedule from birth through 18 years of age. The influenza row has been modified to reflect current CDC recommendations for use of LAIV in age-appropriate and health status-appropriate children 24 months of age and older. A purple bar has been added to the hepatitis A vaccine row, indicating a recommendation for use of this vaccine among infants 6 through 11 months of age before departure to an international destination. A purple bar has been added to the Tdap row, indicating vaccine use for pregnant adolescents 13 through 18 years of age.

Table 2 is the catch-up immunization schedule for persons 4 months through 18 years of age who start late or who are more than 1 month behind the recommended age for vaccine administration. A change is noted in relation to administration of *Haemophilus influenzae* type b and pneumococcal conjugate vaccines. The criteria under which no further doses are needed are presented, followed by recommendations for those in whom additional doses are indicated.

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DOI: <https://doi.org/10.1542/peds.2019-0065>

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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To cite: COMMITTEE ON INFECTIOUS DISEASES. Recommended Childhood and Adolescent Immunization Schedules: United States, 2019. *Pediatrics*. 2019;143(3):e20190065

Table 3 lists the vaccines that may be indicated for children and adolescents 18 years of age or younger on the basis of medical conditions. A pink color has been added to the pregnancy column in the HPV row, indicating the need for a delay in vaccination for pregnant adolescents. The influenza vaccine row has been modified to separate LAIV from IIV and to include contraindications and precautions for LAIV.

A bullet directing providers to their state or local health departments for information regarding vaccination in the setting of a vaccine-preventable disease outbreak has been added to the "Additional Information" section of the notes.

This year, the notes are presented in alphabetical order. The following changes to individual footnotes have been made:

- Hepatitis A vaccine
 - Information regarding the use of combined HepA-HepB (Twinrix) vaccine in persons 18 years of age or older has been added.
 - A section for international travel has been added with recommendation for vaccination of those 6 through 11 months of age and unvaccinated persons 12 months of age or older.
 - Homelessness has been added as an indication for vaccination.
- Hepatitis B vaccine
 - The word "all" has been added to the vaccine recommendation for the birth dose for medically stable infants (≥ 2000 g) born to hepatitis B surface antigen-negative mothers. This was added to emphasize the recommendation for this population.
 - Information regarding the use of CPG-adjuvanted HepB (HepLisav-B) vaccine and combination Twinrix vaccine in persons 18 years or older has been added.

- Polio vaccine
 - A bullet has been added regarding the use of combination vaccines that contain IPV. This bullet mirrors similar information presented in the hepatitis B vaccine note.
- Influenza vaccines
 - LAIV has been added where appropriate.
 - A "special situations" section has been added with information regarding vaccination of persons with a history of egg allergy and information regarding when not to use LAIV.
- MMR and meningococcal vaccines
 - Language regarding use of the MMR vaccine in the setting of a mumps outbreak and Men-ACWY and MenB vaccine use in the setting of meningococcal outbreaks has been removed, and providers are now directed to local health departments for information regarding vaccination during an outbreak (see "Additional Information" section).
- Tdap vaccine
 - The catch-up vaccination section has been updated to indicate that those who received a dose of Tdap or DTaP at 7 through 10 years of age inadvertently or as part of the catch-up schedule should receive the routine dose of Tdap at 11 through 12 years of age.
 - A link to information regarding the use of Tdap/Td for wound prophylaxis has been added.

The 2019 version of tables 1 through 3 and the notes are available on the American Academy of Pediatrics Web site (https://redbook.solutions.aap.org/SS/Immunization_Schedules.aspx) and the CDC Web site (www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html). A parent-friendly vaccine schedule for children and adolescents is available at www.cdc.gov/vaccines/schedules/index.html. An adult immunization schedule

is published in February of each year and is available at www.cdc.gov/vaccines/schedules/hcp/adult.html.

Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System. Guidance about how to obtain and complete a Vaccine Adverse Event Reporting System form can be obtained at www.vaers.hhs.gov or by calling 800-822-7967. Additional information can be found in the *Red Book* and at *Red Book Online* (<http://aapredbook.aapublications.org/>). Statements from the Advisory Committee on Immunization Practices and the CDC that contain detailed recommendations for individual vaccines, including recommendations for children with high-risk conditions, are available at www.cdc.gov/vaccines/hcp/acip-recs/index.html. Information on new vaccine releases, vaccine supplies, and interim recommendations resulting from vaccine shortages and statements on specific vaccines can be found at www.aapredbook.org/news/vaccstatus.shtml.

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ABBREVIATIONS

AAP: American Academy of Pediatrics

CDC: Centers for Disease Control and Prevention