



Recommended Childhood and Adolescent Immunization Schedule: United States, 2021

COMMITTEE ON INFECTIOUS DISEASES

The 2021 recommended childhood and adolescent immunization schedules have been approved by the Centers for Disease Control and Prevention (CDC), American Academy of Pediatrics, American Academy of Family Physicians, American College of Obstetricians and Gynecologists, American College of Nurse-Midwives, American Academy of Physician Assistants, and National Association of Pediatric Nurse Practitioners. The schedules are revised annually to reflect current recommendations for the use of vaccines licensed by the US Food and Drug Administration.

The 2021 childhood and adolescent immunization schedule has been updated to ensure consistency between the format of the childhood and adolescent and adult immunization schedules. Similar to last year, the cover page includes a table with an alphabetical listing of vaccines, approved abbreviations for each vaccine, and vaccine trade names.

Table 1 contains the recommended immunization schedule from birth to 18 years of age.

Table 2 is the catch-up immunization schedule for persons 4 months to 18 years of age who start late or who are more than 1 month behind the recommended age for vaccine administration.

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.

Similar to the 2021 schedule, the notes are presented in alphabetical order. The following changes to individual footnotes have been made to the 2021 schedule:

- For influenza vaccines:
 - Updated language about use of influenza vaccines in persons with an egg allergy with symptoms other than hives: if using an influenza vaccine other than Flublok or Flucelvax, administer in a medical setting under the supervision of a health care provider who can recognize and manage severe allergic reactions.

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DOI: <https://doi.org/10.1542/peds.2020-049775>

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

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FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

To cite: COMMITTEE ON INFECTIOUS DISEASES. Recommended Childhood and Adolescent Immunization Schedule: United States, 2021. *Pediatrics*. 2021;147(3):e2020049775

- Added information regarding severe allergic reactions.
- Updated information about use of antiviral medications and administering quadrivalent live attenuated influenza vaccine (LAIV4): LAIV4 should not be used if one received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days.
- Added “Children younger than 2 years” to the situations in which LAIV4 should not be used¹ (Advisory Committee on Immunization Practices [ACIP] Meeting, June 24, 2020).
- For meningococcal serogroup A, C, W, and Y vaccines:
 - Added meningococcal groups A, C, W, and Y polysaccharide tetanus toxoid conjugate vaccine (MenACWY-TT) as an option for preventing disease attributed to the meningococcal serogroups A, C, W, and Y.
 - Added language for catch-up vaccination for infants who received 1 dose of meningococcal groups A, C, W, and Y oligosaccharide diphtheria CRM₁₉₇ conjugate vaccine (MenACWY-CRM) at an age from 3 to 6 months² (ACIP Meeting, June 26–27, 2019).
- For the meningococcal B vaccine (MenB):
 - For persons aged ≥10 years with complement deficiency, complement inhibitor use, or asplenia or who are microbiologists: MenB booster dose 1 year after completion of a MenB primary series, followed by MenB booster doses every 2 to 3 years thereafter, for as long as an increased risk remains.
 - For persons aged ≥10 years determined by public health officials to be at an increased risk during an outbreak: One-time

booster dose if it has been ≥1 year since completion of a MenB primary series. A booster dose interval of ≥6 months may be considered by public health officials, depending on the specific outbreak, vaccination strategy, and projected duration of elevated risk² (ACIP Meeting, June 26–27, 2019).

- For tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap), ACIP recommendations have been updated to allow either the tetanus and diphtheria toxoids vaccine or Tdap to be used for the decennial tetanus and diphtheria toxoids booster, tetanus prophylaxis for wound management, and additional required doses in the catch-up immunization schedule, if a person has received at least 1 Tdap dose³ (ACIP Meeting, October 23–24, 2019).

Other notable changes in the 2021 child and adolescent immunization schedule include the following:

- Cover page: changed the abbreviation LAIV to LAIV4; added MenACWY-TT (MenQuadfi) to list of meningococcal ACWY; added DTaP-IPV-Hib-HepB (Vaxelis) to list of combination vaccines.
- Table 1 (Recommended Child and Adolescent Immunization Schedule by Age): changed the abbreviation for live attenuated influenza vaccine (LAIV) to LAIV4. In the hepatitis B vaccine row, arrows were added to second dose.
- Table 3 (Recommended Child and Adolescent Immunization Schedule by Medical Condition): in the LAIV row, changed abbreviation to LAIV4. In the measles, mumps, and rubella (MMR) and varicella (VAR) rows, pregnancy column, an asterisk was added to indicate MMR and VAR vaccines should be administered after pregnancy. In the human papillomavirus (HPV) row, pregnancy column, the pink

color for delay until after pregnancy has been replaced with red, which indicates not recommended and contraindicated; an asterisk was also added to indicate the HPV vaccine should be administered after pregnancy.

- Notes (Special Situations): clarifying edits were made to the notes to improve readability and the utility of the schedule for diphtheria and tetanus toxoids and acellular pertussis vaccination, *Haemophilus influenzae* type b vaccination, hepatitis A vaccination, hepatitis B vaccination, HPV vaccination, pneumococcal vaccination, and Tdap vaccination.
- A box within the notes section of the immunization schedules was included that states, “COVID-19 Vaccination- ACIP recommends use of COVID-19 vaccines within the scope of the Emergency Use Authorization or Biologics License Application for the particular vaccine. Interim ACIP recommendations for use of COVID-19 vaccines can be found at www.cdc.gov/vaccines/hcp/acip-recs” on the first page under “Additional Information.”

The 2021 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.aappublications.org/>). Statements from the ACIP 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

ACIP: Advisory Committee on Immunization Practices
CDC: Centers for Disease Control and Prevention
HPV: human papillomavirus
LAIV: live attenuated influenza vaccine
LAIV4: quadrivalent live attenuated influenza vaccine
Tdap: tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine

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Pediatrics 2021;147;

DOI: 10.1542/peds.2020-049775 originally published online February 12, 2021;

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OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

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Pediatrics 2021;147;

DOI: 10.1542/peds.2020-049775 originally published online February 12, 2021;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/147/3/e2020049775>

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