



# Recommended Childhood and Adolescent Immunization Schedules: United States, 2018

COMMITTEE ON INFECTIOUS DISEASES

The recommended childhood and adolescent immunization schedules for 2018 have been approved by the American Academy of Pediatrics, the Advisory Committee on Immunization Practices of 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 title page of the 2018 immunization schedule has been modified to include a table showing the common abbreviations and brand names for vaccines recommended for children and adolescents. Figure 1 provides vaccine recommendations in a single table for people from birth through 18 years of age. No changes have been made to the schedule shown in Figure 1. As in previous years, the yellow bars indicate the recommended age range for all children and contain a notation indicating the recommended dose number by age. The green bars indicate the recommended catch-up age. The purple bars designate the range for immunization for certain groups at high risk. The blue bars indicate the range of recommended doses for people in nonhigh-risk groups who may receive a vaccine, subject to individual decision-making. The white boxes show the ages when a vaccine is not recommended to be given routinely. The columns that begin with a gray-shaded box indicate vaccine recommendations for school entry and at adolescent visits.

Figure 2 is the catch-up immunization schedule offering recommendations for children and adolescents who start late or are >1 month behind. As in previous years, the catch-up schedule is divided into sections for children 4 months through 6 years of age and children and adolescents 7 years through 18 years of age. Two changes have been made to Figure 2. First, the rotavirus vaccine row has been modified to include the maximum ages for the first and last doses of the series. Second, the polio vaccine rows clarify the catch-up schedule for people 4 years of age or older.

Tables (job aids) clarify the recommended use of *Haemophilus influenzae* type b, pneumococcal, and pertussis-containing vaccines as a function of age, the number of doses previously administered, and the time

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interval since the last dose. Minor wording changes have been made for clarity, but there are no new recommendations.

Figure 3 addresses vaccines that may be indicated for people 0 through 18 years of age who have a specific medical indication. This figure now includes a reference for use of live vaccines in people with HIV.

Footnotes contain recommendations for routine vaccination, for catch-up vaccination, and for the vaccination of children and adolescents with high-risk conditions or in special circumstances. For 2018, the footnotes are presented in a new, simplified format to increase ease of use and clarity but still provide all pertinent information. Complete sentences have been replaced by bullets and redundant or unnecessary language has been removed.

Recommendations in the figures should be read with the corresponding footnotes.

Changes have been made to the following footnotes:

- Hepatitis B: Additional information regarding the timing of the birth dose for infants with a birth weight of <2000 g who are born to mothers who are negative for hepatitis B surface antigen has been added;
- *H influenzae* type b: MenHibrix (bivalent meningococcal conjugate vaccine and *H influenzae* type b conjugate vaccine) has been removed because the vaccine is no longer commercially available, and all remaining doses have expired;
- Influenza: Wording has been changed to indicate that live attenuated influenza vaccine is not recommended for the 2017–2018 influenza season;
- Meningococcal vaccines: Only quadrivalent meningococcal conjugate vaccines are discussed

in footnote 11. Serogroup B meningococcal vaccines are discussed in a separate footnote (12);

- Polio vaccines: Updated wording provides guidance for children who have received oral polio vaccine as part of their series; and
- Measles-mumps-rubella vaccines: Guidance is provided in regard to use of a third dose of a mumps-containing vaccine during a mumps outbreak.

The 2018 version of Figures 1–3, the catch-up schedule, the footnotes, and job aids are available on the American Academy of Pediatrics Web site ([https://redbook.solutions.aap.org/SS/Immunization\\_Schedules.aspx](https://redbook.solutions.aap.org/SS/Immunization_Schedules.aspx)) and the CDC Web site ([www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html](http://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](http://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](http://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](http://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 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](http://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](http://www.aapredbook.org/news/vaccstatus.shtml).

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## ABBREVIATION

CDC: Centers for Disease Control and Prevention