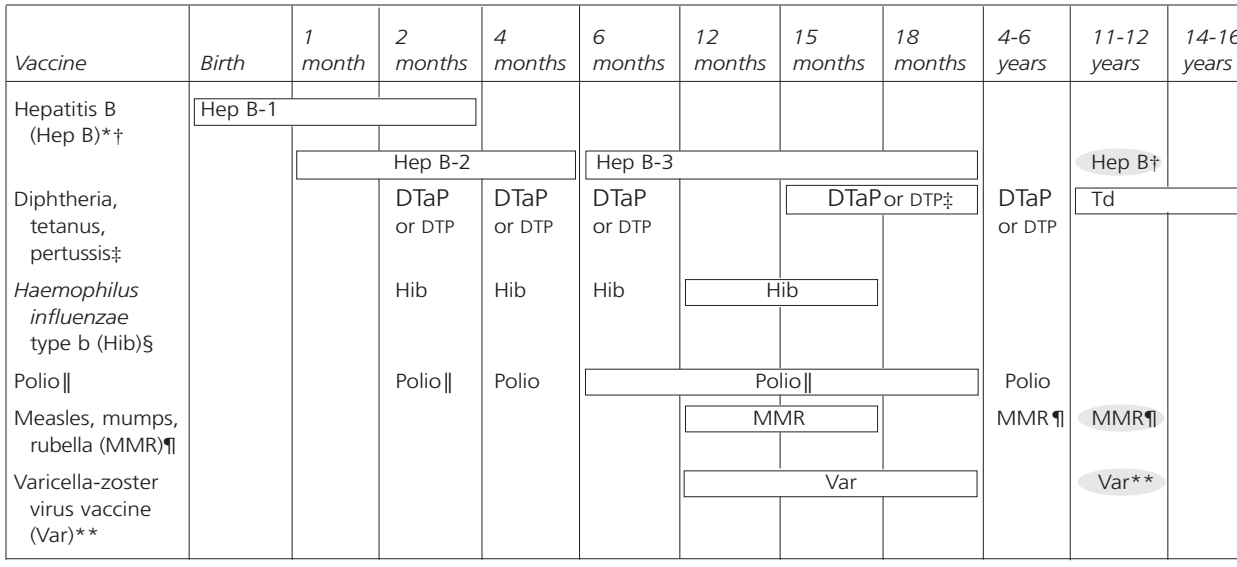
Recommended Childhood Immunization Schedule, United States—January 1998 to December 1998



This schedule has been approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP). It indicates the recommended age for routine administration of currently licensed childhood vaccines. Some combination vaccines are available and may be used whenever administration of all components of the vaccine is indicated. Providers should consult the manufacturers' package inserts for detailed recommendations. Clear bars indicate range of acceptable ages for immunization. Catch-up immunization should be done during any visit when feasible. Shaded ovals indicate vaccines to be assessed and given if necessary during the early adolescent visit.

*—Infants born to hepatitis B surface antigen (HBsAg)-negative mothers should receive 2.5 µg of Recombivax HB or 10 µg of Engerix-B. The second dose should be administered at least one month after the first dose. The third dose should be given at least two months after the second, but not before six months of age. Infants born to HBsAg-positive mothers should receive 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth, and either 5 µg of Recombivax HB or 10 µg of Engerix-B at a separate site. The second dose is recommended at one to two months of age, and the third dose at six months of age. Infants born to mothers whose HBsAg status is unknown should receive either 5 µg of Recombivax HB or 10 µg of Engerix-B within 12 hours of birth. The second dose of vaccine is recommended at one month of age, and the third dose at six months of age. Blood should be drawn at the time of delivery to determine the mother's HBsAg status; if it is positive, the infant should receive HBIG as soon as possible (no later than one week of age). The dosage and timing of subsequent vaccine doses should be based on the mother's HBsAg status.

†—Children and adolescents who have not been vaccinated against hepatitis B in infancy may begin the series during any visit. Those who have not previously received three doses of hepatitis B vaccine should initiate or complete the series during the 11- to 12-year-old visit, and unvaccinated older adolescents should be vaccinated whenever possible. The second dose should be administered at least one month after the first dose, and the third dose should be administered at least four months after the first dose and at least two months after the second dose.

‡—Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) is the preferred vaccine for all doses in the vaccination series, including completion of the series in children who have received one or more doses of whole-cell diphtheria, tetanus, pertussis (DTP) vaccine. Whole-cell DTP is an acceptable alternative to DTaP. The fourth dose (DTP or DTaP) may be administered as early as 12 months of age, provided six months have elapsed since the third dose, and if the child is unlikely to return at 15 to 18 months of age. Tetanus and diphtheria toxoids (Td) is recommended at 11 to 12 years of age if at least five years have elapsed since the last dose of DTP, DTaP or DT. Subsequent routine Td boosters are recommended every 10 years.

§—Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB) is administered at two and four months of age, a dose at six months is not required.

‖—Two poliovirus vaccines are currently licensed in the United States: inactivated poliovirus vaccine (IPV) and oral poliovirus vaccine (OPV). The following schedules are all acceptable by the ACIP, the AAP and the AAFP. Parents and providers may choose among these options: (1) Two doses of IPV, followed by two doses of OPV; (2) four doses of IPV; and (3) four doses of OPV. The ACIP recommends two doses of IPV at two and four months of age followed by two doses of OPV at 12 to 18 months and four to six years of age. IPV is the only poliovirus vaccine recommended for immunocompromised persons and their household contacts.

¶—The second dose of MMR vaccine is routinely recommended at four to six years of age but may be administered during any visit, provided at least one month has elapsed since receipt of the first dose and that both doses are administered at or after 12 months of age. Those who have not previously received the second dose should complete the schedule no later than the 11- to 12-years visit.

**—Susceptible children may receive varicella vaccine (Var) during any visit after the first birthday, and those who lack a reliable history of chickenpox should be immunized during the 11- to 12-year-old visit. Susceptible persons 13 years of age and over should receive two doses at least one month apart.

This schedule is provided by the American Academy of Family Physicians only as an assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations.