

Vaccine-Preventable Diseases and the Vaccines that Prevent Them

Disease	Vaccine	Disease spread by	Disease symptoms	Disease complications
Chickenpox	Varicella vaccine protects against chickenpox.	Air, direct contact	Rash, tiredness, headache, fever	Infected blisters, bleeding disorders, encephalitis (brain swelling), pneumonia (infection in the lungs)
Diphtheria	DTaP* vaccine protects against diphtheria.	Air, direct contact	Sore throat, mild fever, weakness, swollen glands in neck	Swelling of the heart muscle, heart failure, coma, paralysis, death
Hib	Hib vaccine protects against <i>Haemophilus influenzae</i> type b.	Air, direct contact	May be no symptoms unless bacteria enter the blood	Meningitis (infection of the covering around the brain and spinal cord), intellectual disability, epiglottitis (life-threatening infection that can block the windpipe and lead to serious breathing problems), pneumonia (infection in the lungs), death
Hepatitis A	HepA vaccine protects against hepatitis A.	Direct contact, contaminated food or water	May be no symptoms, fever, stomach pain, loss of appetite, fatigue, vomiting, jaundice (yellowing of skin and eyes), dark urine	Liver failure, arthralgia (joint pain), kidney, pancreatic and blood disorders
Hepatitis B	HepB vaccine protects against hepatitis B.	Contact with blood or body fluids	May be no symptoms, fever, headache, weakness, vomiting, jaundice (yellowing of skin and eyes), joint pain	Chronic liver infection, liver failure, liver cancer
Influenza (Flu)	Flu vaccine protects against influenza.	Air, direct contact	Fever, muscle pain, sore throat, cough, extreme fatigue	Pneumonia (infection in the lungs)
Measles	MMR** vaccine protects against measles.	Air, direct contact	Rash, fever, cough, runny nose, pink eye	Encephalitis (brain swelling), pneumonia (infection in the lungs), death
Mumps	MMR** vaccine protects against mumps.	Air, direct contact	Swollen salivary glands (under the jaw), fever, headache, tiredness, muscle pain	Meningitis (infection of the covering around the brain and spinal cord), encephalitis (brain swelling), inflammation of testicles or ovaries, deafness
Pertussis	DTaP* vaccine protects against pertussis (whooping cough).	Air, direct contact	Severe cough, runny nose, apnea (a pause in breathing in infants)	Pneumonia (infection in the lungs), death
Polio	IPV vaccine protects against polio.	Air, direct contact, through the mouth	May be no symptoms, sore throat, fever, nausea, headache	Paralysis, death
Pneumococcal	PCV13 vaccine protects against pneumococcus.	Air, direct contact	May be no symptoms, pneumonia (infection in the lungs)	Bacteremia (blood infection), meningitis (infection of the covering around the brain and spinal cord), death
Rotavirus	RV vaccine protects against rotavirus.	Through the mouth	Diarrhea, fever, vomiting	Severe diarrhea, dehydration
Rubella	MMR** vaccine protects against rubella.	Air, direct contact	Sometimes rash, fever, swollen lymph nodes	Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects
Tetanus	DTaP* vaccine protects against tetanus.	Exposure through cuts in skin	Stiffness in neck and abdominal muscles, difficulty swallowing, muscle spasms, fever	Broken bones, breathing difficulty, death

* DTaP combines protection against diphtheria, tetanus, and pertussis.

** MMR combines protection against measles, mumps, and rubella.

Birth	
HepB ¹	

Immunization Timing 2019

Age	Interval from previous dose
2 months	
DTaP (Diphtheria, Tetanus, Pertussis)	
Polio (IPV)	
HepB² (age: 1-2 months)	1-2 months after birth dose
Hib (Hib meningitis)	
PCV (Pneumo)	
RV³ (Rotavirus)	

Age	Interval from previous dose
4 months	
DTaP	1-2 months
Polio	1-2 months
HepB²	1-2 months if 1st dose given at 2 months of age
Hib	1-2 months
PCV	1-2 months
RV³	4-10 weeks

Age	Interval from previous dose
6 months	
DTaP	1-2 months
Polio (age: 6-18 months)	1-1 1/4 months
HepB² (age: 6-18 months)	2-12 months and at least 4 months after first dose
Hib⁴	1-2 months
PCV	1-2 months
RV³	4-10 weeks and if RV-5 (Rotarix) used for 1 or 2 doses

Age	Interval from previous dose
12 months	
HepA (age: 12-23 months)	
MMR^{5,6} (age: 12-15 months)	
Varicella⁶ (age: 12-15 months)	
Hib (age: 12-15 months)	2-8 months
PCV⁷ (age: 12-15 months)	6-8 weeks

Age	Interval from previous dose
15 months	
DTaP⁸	6-12 months

Age	Interval from previous dose
18 months	
HepA	6-18 months

Age	Age	Age
4-6 years	11-12 years	16 years
DTaP	Tdap	MenACWY (MCV4)
Polio (IPV)	HPV⁹ (2 doses)	MenB¹⁰
MMR^{5,6}	MenACWY (MCV4)	
Varicella⁶		

Every Fall: Everyone 6 months¹¹ and older
Flu Vaccine

This is a suggested schedule. For alternatives and details, including additional recommendations for high-risk children, consult the Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, UNITED STATES, 2019.

1. Monovalent HepB vaccine is recommended within 24 hours of birth for stable infants weighing >2 kg. For others, see schedule.
2. A dose of HepB vaccine is not necessary at 4 months if doses are given at birth and 2 months but may be included as part of a combination vaccine. The final dose (3rd/4th) should be given after age 24 wks. and at least 16 wks. after 1st dose.
3. Administer first dose of age 6 wks.-14 wks. (Max. age: 14 wks.-6 days). Max. age for final dose in the series: 8 months, 0 days. If any dose of RV5 is given or product is unknown, a total of three RV doses are needed.
4. This 6 month Hib dose is not indicated if PedvaxHib is used exclusively for the 2nd and 4th month infant doses.
5. Min. interval between 1st and 2nd dose is 4 wks. Administer 1 dose of MMR to infants 6 - 11 months before international travel.
6. Two MMR doses should still be given on or after 12 months of age.
7. Minimum intervals: Ages 1-12 year: 3 months. Ages 13 years and older: 4 weeks.
8. MMRV may be used when both MMR and Varicella vaccines are indicated. For the 1st dose at 12-15 months, MMR and varicella vaccines should typically be given unless the parent or caregiver prefers MMRV.
9. Final dose of PCV series should be given at ≥12 months of age or older.
10. The 4th dose of DTaP may be administered as early as 12 months, provided at least 6 months have elapsed since the 3rd DTaP dose.
11. HPV vaccine should be given on a 0, 6-12 month schedule for 9-14 year olds (min. interval is 5 months). If patient is immunocompromised or initiates series at 15 years or older, use a 3 dose schedule (0, 1-2, 6 months).
12. A MenB vaccine series may be given to all persons 16 through 23 years of age. See MMRV for details.
13. Two doses given at least 4 weeks apart are recommended for ages 6 months-8 years who are getting flu vaccine for the first time.



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This publication was supported by Grant Number H23/CCH922507 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

Vaccine Acronyms & Abbreviations for Child Care and School

Student immunization records often have combination vaccines and/or abbreviated vaccine names. Use this chart as a reference.*

CDC Abbreviation	CAIR Code	Brand Name	Vaccine
DT	DT/DT-Peds	several manufacturers	Diphtheria & Tetanus
DTaP	DTaP	Daptacel®, Infanrix®, Tripedia®	Diphtheria, Tetanus, & Pertussis
DTP, DTwP	DTP	several manufacturers	Diphtheria, Tetanus, & Pertussis
DTaP-HepB-IPV	DTaPHBIP, DTaP-HepB-IPV	Pediarix®	Diphtheria, Tetanus, Pertussis, Hepatitis B, & Polio
DTaP-IPV	DTaP-IPV	Kinrix™, Quadracel™	Diphtheria, Tetanus, Pertussis, & Polio
DTaP-IPV/Hib	DTaPPIHI, DTaP- IPV/Hib	Pentacel®	Diphtheria, Tetanus, Pertussis, <i>Haemophilus influenzae</i> type b, & Polio
HepA-HepB	HAV-HBV, HepA-HepB	Twinrix®, Twinrix Junior®	Hepatitis A & Hepatitis B
HepB	HBV, HepB	Engix-B®, RecombivaxHB®	Hepatitis B
Hib	HIB, HIBPEDVX, Hib	ActHIB®, Hibrix®, PedvaxHIB®	<i>Haemophilus influenzae</i> type b [†]
Hib-HepB	HIB-HBV, HepB-Hib	Comvax®	Hepatitis B & <i>Haemophilus influenzae</i> type b [†]
Hib-MenCY	MenHibrix, Hib-MenCY	MenHibrix®	<i>Haemophilus influenzae</i> type b [†] & Meningococcal serogroups C & Y
IPV	IPV, Polio	IPOL®	Polio
MMR	MMR	MMR® II	Measles, Mumps, & Rubella
MMRV	MMR-VZV, MMRV	ProQuad®	Measles, Mumps, Rubella, & Varicella
OPV	Polio-oral	Orimune®	Polio
Td	Td	Tenivac®, Decavac™	Tetanus & Diphtheria
Tdap	Tdap	Adacel™, Boostrix®	Tetanus, Diphtheria, & Pertussis
VAR	VZV, Varicella	Varivax®	Varicella

*Disclaimer: Abbreviations may vary across medical practices.
†Child care requirement only

Go to www.ShotsForSchool.org to access information about immunization requirements, resources for school and child care staff, and educational materials for parents.

You can find the most recent version of CDC's list at www.cdc.gov/vaccines/acip/committees/guidance/vac-abbrev.pdf.
For additional information on translating foreign immunization records, see CDC's Pink Book, Appendix B at www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/foreign-products-tables.pdf.



2019 Recommended Immunizations for Children from Birth Through 6 Years Old



Is your family growing? To protect your new baby against whooping cough, get a Tdap vaccine. The recommended time is the 27th through 36th week of pregnancy. Talk to your doctor for more details.

Shaded boxes indicate the vaccine can be given during shown age range.

NOTE:

If your child misses a shot, you don't need to start over. Just go back to your child's doctor for the next shot. Talk with your child's doctor if you have questions about vaccines.

FOOTNOTES:

- * Two doses given at least four weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group.
 - ^s Two doses of HepA vaccine are needed for lasting protection. The first dose of HepA vaccine should be given between 12 months and 23 months of age. The second dose should be given 6 months after the last dose. HepA vaccination may be given to any child 12 months and older to protect against hepatitis A. Children and adolescents who did not receive the HepA vaccine and are at high risk should be vaccinated against hepatitis A.
- If your child has any medical conditions that put him at risk for infection or is traveling outside the United States, talk to your child's doctor about additional vaccines that he or she may need.*

See back page for more information on vaccine-preventable diseases and the vaccines that prevent them.

For more information, call toll-free
1-800-CDC-INFO (1-800-232-4636)
 or visit
www.cdc.gov/vaccines/parents



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