Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years) (Page 1 of 5)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)	
Hepatitis B (HepB) <i>Give IM</i>	 Vaccinate all children age 0 through 18yrs. Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at age 1–2m and the final dose at age 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine (ages 1–2m, 6–18m) or up to 3 doses of Comvax (ages 2m, 4m, 12–15m) or with 3 doses of Pediarix (ages 2m, 4m, 6m), which may result in giving a total of 4 doses of hepatitis B vaccine. 	 Do not restart series, no matter how long since previous dose. 3-dose series can be started at any age. Minimum intervals between doses: 4wks between #1 and #2, 8wks between #2 and #3, and at least 16wks between #1 and #3. 	 Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precautions Moderate or severe acute illness. For infants who weigh less than 2000 grams, see ACIP recommendations.* 	
	 If mother is HBsAg-positive: Give the newborn HBIG and dose #1 within 12hrs of birth; complete series by age 6m. If mother's HBsAg status is unknown: Give the newborn dose #1 within 12hrs of birth. If low birth weight (less than 2000 grams), also give HBIG within 12hrs. For infants weighing 2000 grams or more whose mother is subsequently found to be HBsAg positive, give the infant HBIG ASAP (no later than age 7d) and follow HepB immunization schedule for infants born to HBsAg-positive mothers. 	Special Notes on Hepatitis B Vaccine (HepB)Dosing of HepB: Monovalent vaccine brands are interchangeable. For people age 0 through 19yrs, give 0.5 mL of either Engerix-B or Recombivax HB. Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs: Give 2 doses Recombivax HB 1.0 mL (adult formulation) spaced 4–6m apart. (Engerix-B is not licensed for a 2-dose schedule.)(HepB)For preterm infants: See ACIP hepatitis B recommendations www.cdc.gov/mmwr/ PDF/rr/rr5416.pdf.		
DTaP, DT (Diphtheria, tetanus, acellular pertussis) <i>Give IM</i>	 Give to children at ages 2m, 4m, 6m, 15–18m, and 4–6yrs. May give dose #1 as early as age 6wks. May give #4 as early as age 12m if 6m have elapsed since #3. Do not give DTaP/DT to children age 7yrs and older. If possible, use the same DTaP product for all doses. 	 #2 and #3 may be given 4wks after previous dose. #4 may be given 6m after #3. If #4 is given before 4th birthday, wait at least 6m for #5 (age 4–6yrs). If #4 is given after 4th birthday, #5 is not needed. 	 Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. For all pertussis-containing vaccines: Encephalopathy not attributable to an identifiable cause, within 7d after DTP/DTaP/Tdap. Precautions 	
Td, Tdap (Tetanus, diphtheria, acellular pertussis) <i>Give IM</i>	 For children and teens lacking previous Tdap: Give Tdap routinely at age 11–12yrs and vaccinate older teens on a catch-up basis; then boost every 10yrs with Td. Make special efforts to give Tdap to children and teens who are (1) in contact with infants younger than age 12m and, (2) healthcare workers with direct patient contact. Give Tdap to pregnant adolescents during each pregnancy (preferred during 27–36 weeks' gestation), regardless of interval since prior Td or Tdap. 	 Children as young as age 7yrs and teens who are unvaccinated or behind schedule should complete a primary Td series (spaced at 0, 1–2m, and 6–12m intervals); substitute Tdap for any dose in the series, preferably as dose #1. Tdap should be given regardless of interval since previous Td. 	 Moderate or severe acute illness. History of arthus reaction following a prior dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine. Guillain-Barré syndrome (GBS) within 6wks after previous dose of tetanus-toxoid-containing vaccine. For DTaP only: Any of these events following a previous dose of DTP/DTaP: 1) temperature of 105°F (40.5°C) or higher within 48hrs; 2) continuous crying for 3hrs or more within 48hrs; 3) collapse or shock-like state within 48hrs; 4) seizure within 3d. For all pertussis-containing vaccines: Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized. 	

* This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/ACIP-recs/index.html or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip. This table is revised periodically. Visit IAC's website at www.immunize.org/childrules to make sure you have the most current version.

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Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years) (Page 2 of 5)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)	
Rotavirus (RV) <i>Give</i> orally	 Rotarix (RV1): give at ages 2m, 4m. RotaTeq (RV5): give at ages 2m, 4m, 6m. May give dose #1 as early as age 6wks. Give final dose no later than age 8m-0d. 	 Do not begin series in infants older than age 14wks 6 days. Intervals between doses may be as short as 4wks. If prior vaccination included use of different or unknown brand(s), a total of 3 doses should be given. 	 Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. If allergy to latex, use RV5. History of intussusception. Diagnosis of severe combined immunodeficiency (SCID). Precautions Moderate or severe acute illness. Altered immunocompetence other than SCID. Chronic gastrointestinal disease. For RV1 only, spina bifida or bladder exstrophy. 	
Varicella (Var) (Chickenpox) <i>Give SC</i>	 Give dose #1 at age 12–15m. Give dose #2 at age 4–6yrs. Dose #2 of Var or MMRV may be given earlier if at least 3m since dose #1. If the 2nd dose was given at least 4wks after 1st dose, it can be accepted as valid. Give a 2nd dose to all older children/ teens with history of only 1 dose. MMRV may be used in children age 12m through 12yrs (see note below). 		 Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Pregnancy or possibility of pregnancy within 4wks. Children on high-dose immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte percentages are 15% or greater in children age 1 through 8yrs or 200 cells/µL in children age 9yrs and older) Precautions Moderate or severe acute illness. If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP's <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating. Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination. For MMRV only, personal or family (i.e., sibling or parent) history of seizures. 	
MMR (Measles, mumps, rubella) <i>Give SC</i>	 entiel MNR and Varior MNRV may be caregiver expresses a preference for MN MMR and Var be used for the first dose Give dose #1 at age 12–15m. Give MMR at age 6–11m if traveling internationally; revaccinate with 2 doses of MMR at age 12–15m and at least 4wks later. The dose given at younger than 12m does not count toward the 2-dose series. Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 4wks since dose #1. For MMRV: dose #2 may be given earlier if at least 3m since dose #1. Give a 2nd dose to all older children and teens with history of only 1 dose. MMRV may be used in children age 12m through 12 years (see note above). 	ARV, CDC recommends that	 Note: For patients with humoral immunodeficiency or leukemia, see ACIP recommendation www.cdc.gov/mmwr/pdf/rr/rr5604.pdf.* Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its composite Pregnancy or possibility of pregnancy within 4wks. Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; co immunodeficiency; long-term immunosuppressive therapy, or severely symptomatic HIV Note: HIV infection is NOT a contraindication to MMR for children who are not severely nocompromised (consult ACIP MMR recommendations [<i>MMWR</i> 2013;62 [RR-4] for det Vaccination is recommended if indicated for 1) children age 12m through 5yrs whose CIT-lymphocyte percentage has been greater than 15% for at least 6m or 2) for children age and older whose CD4+ T-lymphocyte counts have been 200 cells/µL or greater for at least 	

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years) (Page 3 of 5)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
Pneumococcal conjugate (PCV13) <i>Give IM</i>	 Give at ages 2m, 4m, 6m, 12–15m (booster dose). Dose #1 may be given as early as age 6wks. When children are behind on PCV13 schedule, minimum interval for doses given to children younger than age 12m is 4wks; for doses given at 12m and older, it is 8wks. For age 24 through 59m and healthy: If unvaccinated or any incomplete schedule or if 4 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose. For high-risk** children ages 2 through 5 yrs: Give 2 doses at least 8wks apart if they previously received fewer than 3 doses; give 1 dose at least 8wks after the most recent dose if they previously received 3 doses. For high-risk** children: All recommended PCV13 doses should be given prior to PPSV vaccination. PCV13 is not routinely given to healthy children age 5yrs and older. ** High-risk: For both PCV13 and PPSV, those with sickle cell disease; anatomic or functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppressior; diseases associated with immunosuppressive and/or radiation therapy; solid organ transplantation; or who have or will 	 For minimum intervals, see 3rd bullet at left. For age 7 through 11m: If history of 0 doses, give 2 doses of PCV13, 4wks apart, with a 3rd dose at age 12 –15m; if history of 1 or 2 doses, give 1 dose of PCV13 with a 2nd dose at age 12–15m at least 8wks later. For age 12 through 23m: If unvaccinated or history of 1 dose before age 12m, give 2 doses of PCV13 8wks apart; if history of 1 dose of PCV13 at least 8wks after most recent dose; if history of 4 doses of PCV7 or other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose. For age 2 through 5yrs and at high risk**: If unvaccinated or any incomplete schedule of 1 or 2 doses, give 2 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent PCV7 dose. For children ages 6 through 18yrs with functional or anatomic asplenia (including sickle cell disease), HIV infection or other immunocompromising condition, cochlear implant, or CSF leak, give 1 dose of PCV13 if no previous history of PCV13. 	Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to a PCV vaccine, to any of its components, or to any diphtheria toxoid-containing vaccine. Precaution Moderate or severe acute illness.
Pneumococcal polysaccharide (PPSV) <i>Give IM</i> <i>or SC</i>	 have a cochlear implant and, <i>for PPSV only</i>, alcoholism and/or chronic liver disease. Give 1 dose at least 8wks after final dose of PCV13 to high-risk** children age 2yrs and older. For children who have sickle cell disease, functional or anatomic asplenia, HIV infection, or other immunocom- promising condition, give a 2nd dose of PPSV 5yrs after previous PPSV. (See ACIP pneumococcal recommenda- tions at www.cdc.gov/mmwr/pdf/rr/rr5911.pdf.) 		Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precaution Moderate or severe acute illness.
Human papillomavirus (HPV) (HPV2, Cervarix) (HPV4, Gardasil) <i>Give IM</i>	 Give 3-dose series of either HPV2 or HPV4 to girls at age 11–12yrs on a 0, 1–2, 6m schedule. (May give as early as age 9yrs.) Give 3-dose series of HPV4 to boys age 11–12yrs on a 0, 1–2, 6m schedule. (May give as early as age 9yrs.) Give a 3-dose series of either HPV2 or HPV4 to all older girls/women (through age 26yrs) and 3-dose series of HPV4 to all older boys/men (through age 21yrs) who were not previously vaccinated. 	Minimum intervals between doses: 4wks between #1 and #2; 12wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all doses.	Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precautions • Moderate or severe acute illness. • Pregnancy.

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years) (Page 4 of 5)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
Hepatitis A (HepA) <i>Give IM</i>	 Give 2 doses spaced 6–18m apart to all children at age lyr (12–23m). Vaccinate all previously unvaccinated children and adolescents age 2yrs and older who Want to be protected from HAV infection and lack a specific risk factor. Live in areas where vaccination programs target older children. Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan. Have chronic liver disease, clotting factor disorder, or are adolescent males who have sex with other males. Use illicit drugs (injectable or non-injectable). Anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee's arrival in the U.S. 	 Minimum interval between doses is 6m. Children who are not fully vaccinated by age 2yrs can be vaccinated at a subsequent visit. Administer 2 doses at least 6 months apart to previously unvaccinated persons who live in areas where vaccination programs target older children, or who are at increased risk for infection. Give 1 dose as postexposure prophylaxis to incompletely vaccinated children and teens age 12m and older who have recently (during the past 2wks) been exposed to hepatitis A virus. 	 Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precautions Moderate or severe acute illness.
Inactivated Polio (IPV) Give SC or IM	 Give to children at ages 2m, 4m, 6–18m, 4–6yrs. May give dose #1 as early as age 6wks. Not routinely recommended for U.S. residents age18yrs and older (except certain travelers). For information on polio vaccination for international travelers, see wwwnc.cdc.gov/travel/diseases/poliomyelitis. 	 The final dose should be given on or after the 4th birthday and at least 6m from the previous dose. If dose #3 is given after 4th birthday, dose #4 is not needed if dose #3 is given at least 6m after dose #2. 	 Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precautions Moderate or severe acute illness. Pregnancy.
Influenza Inactivated influenza vaccine (IIV) <i>Give IM</i> Live attenuated influenza vaccine (LAIV) <i>Give</i> intranasally	 Vaccinate all children and teens age 6m and older. LAIV is preferred for healthy children ages 2 through 8yrs if immediately available; it may be given to non-pregnant people through age 49yrs who lack a contraindication or precaution. Give 2 doses, spaced 4wks apart, to children age 6m through 8yrs who 1) are first-time vaccinees, or 2) who meet any of the additional guidance in the current year's ACIP influenza vaccine recommendations*. For IIV, give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older. If LAIV and either MMR, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart. 		 Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine, to any of its components, including egg protein. Note: People age 18yrs and older with egg allergy of any severity can receive the recombinant influenza vaccine (RIV) (Flublok). RIV does not contain any egg protein. For LAIV only: Age younger than 2yrs; pregnancy; immunosuppression (including that caused by medications or HIV); for children and teens ages 6m through 18yrs, current long-term aspirin therapy; for children age 2 through 4yrs, wheezing or asthma within the past 12m, per healthcare provider statement. Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination. For children/ teens who experience only hives with exposure to eggs, give IIV with additional safety precautions (i.e., observe patients for 30 minutes after receipt of vaccine for signs of a reaction). Precautions Moderate or severe acute illness. History of Guillain-Barré syndrome (GBS) within 6wks of a previous influenza vaccination. For LAIV only: Chronic pulmonary (including asthma in children age 5yrs and older), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic or metabolic (including diabetes) disorders.

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years) (Page 5 of 5)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
Hib (Haemophilus influenzae type b) Give IM	 ActHib (PRP-T): give at age 2m, 4m, 6m, 12–15m (booster dose). PedvaxHIB or Comvax (containing PRP-OMP): give at age 2m, 4m, 12–15m (booster dose). Dose #1 of Hib vaccine should not be given earlier than age 6wks. Give final dose (booster dose) no earlier than age 12m and a minimum of 8wks after the previous dose. Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses is necessary to complete the primary series in infants. For vaccination of children 12 months and older who are immunocompromised or asplenic: if previously received no doses or only 1 dose before age 12m, give 2 additional doses. Hib is not routinely given to healthy children age 5yrs and older. I dose of Hib vaccine should be administered to children age 5 years and older who have not received a primary series and booster dose or at least 1 dose of Hib vaccine after age 14m. I dose of Hib vaccine should be administered to unvaccinated persons 5 through 18 years of age with HIV infection. Hiberix is approved ONLY for the booster dose at age 12m through 4yrs. 	 All Hib vaccines: If #1 was given at 12–14m, give booster in 8wks. Give only 1 dose to unvaccinated children ages 15–59m. ActHib: #2 and #3 may be given 4wks after previous dose. If #1 was given at age 7–11m, only 3 doses are needed; #2 is given at least 4wks after #1, then final dose at age 12–15m (wait at least 8wks after dose #2). PedvaxHIB and Comvax: #2 may be given 4wks after dose #1. Recipients of hematopoietic stem cell transplant should receive 3 doses of Hib vaccine at least 4wks apart beginning 6–12m after transplant, regardless of Hib vaccination history. 	 Contraindications Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Age younger than 6wks. Precaution Moderate or severe acute illness.
Meningococcal conjugate, quadrivalent (MenACWY) <i>Give IM</i> ——— Menactra (MenACWY-D) Menveo (MenACWY-CRM) <i>Give IM</i> ——— Hib-MenCY <i>Give IM</i> ——— Meningococcal polysaccharide (MPSV4) <i>Give SC</i>	 Give a 2-dose series of quadrivalent MCV (Menactra [MenACWY-D] or Menveo [MenACWY-CRM]) with dose #1 routinely at age 11–12yrs and dose #2 at age 16yrs. Give MenACWY to all unvaccinated teens age 13 through 18yrs. If vaccinated at age 13–15yrs, give dose #2 at age 16 through 18yrs with a minimum interval of at least 8wks between doses. For college students, give 1 initial dose to unvaccinated first-year students age 19 through 21yrs who live in residence halls; give dose #2 if most recent dose given when younger than age 16yrs. Give Hib-MenCY (MenHibrix) or MenACWY-CRM (Menveo) to children age 2–18m with persistent complement component deficiency or anatomic/functional asplenia; give at ages 2, 4, 6, 12–15m. For unvaccinated or partially vaccinated children age 7–23m with persistent complement component deficiency: 1) if age 7–23m and using MenACWY-CRM (Menveo), give a 2-dose series at least 3m apart with dose #2 given after age 12m or, 2) if age 9–23m and using MenACWY-D (Menactra), give a 2-dose series at least 3m apart with dose #2 given after age 24m and older with persistent complement component deficiency or anatomic or functional asplenia; give 2 doses, 2m apart. If MenACWY-D is given, it must be separated by 4wks from the final dose of PCV13. Give age-appropriate series of meningococcal conjugate vaccine (brand must be licensed for age of child) to 1) children age 2m and older at risk during a community outbreak attributable to a vaccine serogroup and 2) children age 9m and older travelling to or living in countries with hyperendemic or epidemic meningococcal disease. Prior receipt of Hib-MenCY is not sufficient for children travelling to the meningitis belt or the Hajj. 	 If previously vaccinated and risk of meningococcal disease persists, revaccinate with MenACWY in 3yrs (if previous dose given when younger than age 7yrs) or in 5yrs (if previous dose given at age 7yrs or older). Then, give additional booster doses every 5yrs if risk continues. When administering MenACWY to children and teens with HIV infec- tion, give 2 initial doses, separated by 8wks. Minimum ages for MCV: 6wks (Hib- MenCY), 2m (MenACWY-CRM), 9m (MenACWY-D). See ACIP schedule footnotes for additional information on catch-up vaccination of high-risk persons and for Hib-MenCY. 	Contraindication Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. Precautions Moderate or severe acute illness.