
ACHA Guidelines

Immunization Recommendations for College Students

Immunizations offer safe and effective protection from vaccine-preventable diseases and outbreaks. The United States is experiencing re-emergence of these diseases, in part due to factors such as un-immunized and under-immunized persons and global travel. The American College Health Association (ACHA) strongly supports the use of vaccines to protect the health of our individual students and our campus communities. In recognition of the vital role that vaccine coverage plays in community immunity (herd immunity), ACHA discourages use of nonmedical exemptions to required vaccines.

This guidance is provided to facilitate implementation of a comprehensive institutional immunization policy. Best practices for institutions of higher education include the following Immunization Recommendations for College Students (IRCS), encouraging students who request nonmedical exemptions to required vaccines to be counseled by a health service clinician, and considering exclusion of un-immunized students from school during outbreaks of vaccine-preventable diseases. Institutions may also be subject to additional requirements for pre-matriculation vaccinations and the granting of exemptions by state law. Health science students have additional responsibility to their patients and should meet the same standards as health care personnel.

The ACHA Vaccine-Preventable Diseases Advisory Committee updates this document in accordance with changing public health recommendations. These guidelines follow Advisory Committee on Immunization Practices (ACIP) recommendations published by the U.S. Centers for Disease Control and Prevention (CDC). Links to full information regarding ACIP provisional and final recommendations, including schedules, indications, precautions, and contraindications, are available at the CDC National Immunization Program website: <http://www.cdc.gov/vaccines/index.html>.

In addition to implementing a comprehensive institutional immunization policy, institutions are also encouraged to screen for tuberculosis (TB) infection, especially those students who are at increased risk, as this is a key strategy for controlling and preventing infection on college and university campuses. ACHA Guidelines for Tuberculosis Screening and Targeted Testing of College and University Students are available at www.acha.org/guidelines.

VACCINES TO REDUCE OUTBREAKS

Outbreaks of communicable diseases cause great disruption and emotional and financial burdens for campuses, students, and their families. Assuring compliance with required and recommended vaccines adopted by CDC is particularly important in preventing disease clusters and outbreaks on campus.

As COVID-19 vaccines continue to move through the FDA authorization process from Emergency Use to Biologic License, it is important to note that these vaccines are safe and effective at preventing severe illness and death. All members of a college community should be encouraged to follow CDC guidelines and stay up to date on COVID-19 vaccination.

Recommendations for the use of COVID-19 vaccines can be found at www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19.html. CDC's interim clinical considerations for use of COVID-19 vaccines can be found at www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html.

INFLUENZA VACCINE

- Inactivated influenza vaccines: Quadrivalent (IIV4, ccIIV4)
- Live attenuated influenza vaccine: LAIV (consult CDC indications)
- Recombinant influenza vaccine: RIV4

VACCINATION SCHEDULE: Annually

MAJOR INDICATIONS: All members of a campus community age 6 months or older should receive annual influenza vaccination.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine (applies to any and all flu vaccines). Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, ccIIV, or LAIV may consider RIV.

MEASLES, MUMPS, RUBELLA (MMR) VACCINE

VACCINATION SCHEDULE: Two doses of MMR at least 28 days apart after 12 months of age.

MAJOR INDICATIONS:

- All college students born after 1956 without lab evidence of disease
- All health care professional students without evidence of serologic immunity should receive two doses of MMR (if they do not have documentation of having had 2 MMR doses)
- A 3rd dose should be given in a mumps outbreak when public health authorities consider the individual part of a group or population at increased risk
- Those born before 1957 without other evidence of immunity should receive one dose, or two doses in an outbreak

CONTRAINDICATIONS AND PRECAUTIONS: Pregnancy; history of hyper-sensitivity or anaphylaxis to any of the components in the vaccine; receipt of antibody-containing blood products; moderate or severe acute infections. See CDC guidelines for vaccination of persons with altered immunocompetence.

MENINGOCOCCAL QUADRIVALENT (A, C, W, Y) VACCINE

Note: Information below refers to conjugate vaccine. Polysaccharide vaccine is no longer available

- MenACWY-CRM (Menveo[®])
- MenACWY-D (Menactra[®])
- MenACWY-TT (MenQuadfi[®])

VACCINATION SCHEDULE:

- Initial dose: 11–12 yrs. of age
- Booster dose: 16 yrs. of age
- If initial dose given age 13–15 years: booster dose at 16–18 years of age
- If initial dose given age ≥ 16 years, no booster dose required

See CDC guidelines for persons with altered immune competence.

For colleges and university with meningococcal vaccine policies as a requirement of enrollment or living on campus: students 21 years of age and younger should have documentation of a dose of conjugate vaccine at ≥ 16 years of age. The booster dose can be administered any time after the 16th birthday. The minimum interval between doses of meningococcal conjugate vaccine is 8 weeks.

Routine vaccination of healthy persons who are not at increased risk for exposure is not recommended after age 21 years.

MAJOR INDICATIONS:

Adolescents 11–18 years of age and other populations at increased risk, including college students living in residence halls/similar housing, etc., persons with persistent complement deficiencies or asplenia, laboratory personnel with exposure to aerosolized meningococci, and travelers to hyperendemic or endemic areas of the world. Non-freshmen college students may choose to be vaccinated to reduce their risk of meningococcal disease.

CONTRAINDICATIONS AND PRECAUTIONS:

History of hypersensitivity or serious adverse reaction to any of the components in the vaccine. **For MenACWY-D and Men ACWY-CRM only:** severe allergic reaction to any diphtheria toxoid- or CRM197-containing vaccine. **For MenACWY-TT only:** severe allergic reaction to a tetanus toxoid-containing vaccine.

SEROGROUP B MENINGOCOCCAL VACCINE

- MenB-4C (Bexsero[®], 2-dose series)
- MenB-FHbp (Trumenba[®], 2- or 3-dose series)

VACCINATION SCHEDULE:

- For MenB-4C: 0–2 months
- For MenB-FHbp: 0–2–6 months (for those at increased risk) or 0–6 months (for those at no increased risk)

MAJOR INDICATIONS:

Routinely recommended for persons at increased risk due to:

- Outbreaks of serogroup B meningococcal disease
- Persistent complement component deficiencies
- Treatment with eculizumab for hemolytic uremic syndrome or paroxysmal nocturnal hemoglobinuria
- Anatomic or functional asplenia including sickle cell disease
- Laboratory workers routinely exposed to isolates of *N. meningitis*

Based on shared clinical decision-making,¹ may be given to those not at increased risk:

- Adolescents and young adults age 16–23 for short term protection (preferred age 16–18)
- Serogroup B vaccines may be administered with MenACWY but at different anatomic site, if possible

¹ Generally, ACIP makes shared clinical decision-making recommendations when individuals may benefit from vaccination, but broad vaccination of people in that group is unlikely to have population-level impact. (<https://www.cdc.gov/vaccines/acip/acip-scdm-faqs.html>, accessed February 26, 2020)

CONTRAINDICATIONS AND PRECAUTIONS:

- Defer in pregnant or lactating females unless at increased risk
 - History of hypersensitivity to any of the components of the vaccine
 - MenB-4 (Bexsero®): use with caution if hypersensitive to latex
 - The two MenB vaccines are not interchangeable, so the same product must be used for all doses
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TETANUS, DIPHTHERIA, PERTUSSIS VACCINE

- DT: pediatric (<age 7 years), preparation of diphtheria and tetanus toxoids
- DTaP: pediatric (<age 7 years), preparation of diphtheria, tetanus toxoids, and acellular pertussis
- Td: 7 years and older, preparation of tetanus and diphtheria toxoids
- Tdap: adolescent and older, preparation of tetanus, diphtheria toxoids, and acellular pertussis

VACCINATION SCHEDULE:

Primary series in childhood (4 doses: DT, DTaP, DTP, or Td)

Booster doses: For adolescents 11–18 and adults 19–64: single dose of Tdap. Tdap can be administered regardless of interval since the last tetanus or diphtheria toxoid-containing vaccine.

Routine booster dose intervals: Adults should receive tetanus boosters at 10-year intervals, beginning 10 years after receiving Tdap. Subsequently, either Tdap or Td may be used for booster doses.

Tetanus prophylaxis in wound management: Persons with three or more doses of tetanus-toxoid-containing vaccine: for clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoid-containing vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown.

MAJOR INDICATIONS: All college students. One dose of Tdap for all individuals ages 11–64 regardless of interval since last Td booster.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity or serious adverse reaction to any of the components in the vaccine.

VARICELLA VACCINE

VACCINATION SCHEDULE: Two doses of varicella-containing vaccine at least 12 weeks apart if vaccinated between 1 and 12 years of age and at least 4 weeks apart if vaccinated at age 13 years or older.

MAJOR INDICATIONS:

- All college students without evidence of immunity (e.g., born in the U.S. before 1980, a history of disease, two prior doses of varicella vaccine, or an antibody level consistent with immunity)
- All health care professional students with only one documented dose of vaccine or with a negative serologic antibody test should receive a total of two doses of vaccine

CONTRAINDICATIONS AND PRECAUTIONS: Pregnancy, history of hyper-sensitivity or anaphylaxis to any of the components in the vaccine, and severe illness. Guidelines exist for vaccination of persons with altered immunocompetence.

OTHER VACCINES RECOMMENDED FOR ADULTS

The following vaccines are recommended for adults. College matriculation provides the opportunity to assure that students receive the appropriate vaccines.

HEPATITIS A VACCINE

VACCINATION SCHEDULE: Two-dose series: Havrix® 6–12 months apart or Vaqta® 6–18 months apart (minimum interval: 6 months) *

MAJOR INDICATIONS: Recommended for routine use in all adolescents through the age of 18 and in particular for adolescent and adult high-risk groups (i.e., persons traveling to countries where hepatitis A is moderately or highly endemic, men who have sex with men, users of injectable and non-injectable drugs, persons who have clotting-factor disorders, persons working in hepatitis A research laboratories and with hepatitis A infected nonhuman primates, persons with chronic liver disease, and close personal contacts with international adoptees within 60 days after arrival from highly endemic countries).

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

*Combined hepatitis A and B vaccines may be given as a series of 3 or 4 doses for 18 years of age and older:

- 3-dose series HepA-HepB (Twinrix®) at 0, 1, 6 months. Minimum interval for dose 1 to dose 2: 4 weeks; minimum interval for dose 2 to dose 3: 5 months)
 - 4-dose series HepA-HepB (Twinrix®) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months
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HEPATITIS B VACCINE

- Hepatitis B recombinant (Engerix-B[®], Recombivax HB[®])
- Hepatitis B recombinant, adjuvanted HepB-CpG (Heplisav-B[®])

VACCINATION SCHEDULE:

- 2- or 3-dose series:
 - 2-dose series only applies when 2 doses of Heplisav-B* are used at least 4 weeks apart
 - 3-dose series Engerix-B or Recombivax HB at 0, 1, 6 months
 - minimum intervals: dose 1 to dose 2: 4 weeks; dose 2 to dose 3: 8 weeks; dose 1 to dose 3: 16 weeks

INTERCHANGEABILITY AND DOSING SCHEDULE:

Series consisting of a combination of 1 dose of adjuvanted HepB-CpG and Hep B):

- Adhere to the 3-dose schedule, minimum of 4 weeks between dose 1 & 2; 8 weeks between dose 2 & 3; and 16 weeks between dose 1 & 3
- If HepB-CpG is substituted for dose 2 of Hep B, it is recommended that the HepB-CpG is the third dose (given a minimum of 4 weeks from the previous dose to complete the 3-dose series)

MAJOR INDICATIONS: All college students. In particular, students enrolled in health care professional programs should receive hepatitis B vaccination.

CONTRAINDICATIONS AND PRECAUTIONS: Individuals with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any hepatitis B vaccine or to any component of Heplisav-B, including yeast.

*Combined hepatitis A and B vaccines may be given as a series of 3 or 4 doses for 18 years of age and older:

- 3-dose series HepA-HepB (Twinrix[®]) at 0, 1, 6 months. Minimum interval for dose 1 to dose 2: 4 weeks; minimum interval for dose 2 to dose 3: 5 months)
- 4-dose series HepA-HepB (Twinrix[®]) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months

HUMAN PAPILLOMAVIRUS (HPV) VACCINE

- 9-valent (HPV9 [Gardasil 9[®]]) [Note: Bivalent (HPV2) and Quadrivalent (HPV4) are no longer available.]

VACCINATION SCHEDULE:

Administer human papillomavirus (HPV) vaccine to all persons through age 26 years

The number of doses of HPV vaccine to be administered depends on age at initial HPV vaccination:

- Age 15 years or older at initial vaccination: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks; dose 2 to dose 3: 12 weeks; dose 1 to dose 3: 5 months. Repeat dose if administered too soon.)
- Aged 9–14 years at HPV vaccine series initiation and received 1 dose or 2 doses less than 5 months apart: administer additional 1 dose
- Aged 9–14 years at HPV vaccine series initiation and received 2 doses at least 5 months apart: series completed; 0 additional dose needed

Administer human papillomavirus (HPV) vaccine using shared clinical decision-making to persons aged 27 to 45. Administer 2 or 3 doses based on age at the initial dose, as above.

MAJOR INDICATIONS:

- All 11- or 12-year-olds; may be started at age 9.
- If not vaccinated previously: all adults through age 26 years

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

PNEUMOCOCCAL VACCINE

- Pneumococcal conjugate vaccine (PCV13 [Pneumovax 13[®]]; PCV15 [Vaxneuvance[®]]; PCV20 [Pneumovax 20[®]])
- Pneumococcal polysaccharide vaccine (PPSV23 [Pneumovax[®]23])

VACCINATION SCHEDULE:

- 4-dose series of PCV13 at age 2, 4, 6, and 12–15 months; booster of PPSV23 between ages 6–18 years (if no previous PPSV23)

MAJOR INDICATIONS:

- Adults 65 years or older (see <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html#note-pneumo>)
- Adults aged 19–64 years old with certain underlying medical conditions or other risk factors who have not previously received a pneumococcal conjugate vaccine or whose previous vaccination history is unknown: 1 dose PCV15 or 1 dose PCV20. If PCV15 is used, this should be followed by a dose of PPSV23 given at least 1 year after the PCV15 dose. A minimum interval of 8 weeks between PCV15 and PPSV23 can be considered for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak to minimize the risk of invasive pneumococcal disease caused by serotypes unique to PPSV23 in these vulnerable groups.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

POLIO VACCINE

- Inactivated (IPV)
- Oral poliovirus (OPV no longer available in U.S.)

VACCINATION SCHEDULE: Primary series in childhood with IPV alone, OPV alone, or IPV/OPV sequentially; IPV booster only if needed for travel after age 18 years.

MAJOR INDICATIONS: IPV for certain international travelers to areas or countries where polio is epidemic or endemic.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

These guidelines were developed by ACHA's Vaccine-Preventable Diseases Advisory Committee. A special thanks to the current committee members: Sharon McMullen, RN, MPH, FACHA (Committee Co-Chair); Theyy S. Chai, MD (Committee Co-chair); Michael Deichen, MD, MPH; Susan Even, MD, FACHA; Elena Heitz, RN, BSN; James Jacobs, MD, PhD; Charlotte Katzin, BSN; and Craig Roberts, MS, PA-C, FACHA.

