Recommended Adult Immunization Schedule for Ages 19 Years or Older

2025

Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty, mNexspike, Spikevax
COVID-19 Vaccine	1vCOV-aPS	Nuvaxovid
Haemophilus influenzae type b vaccine	Hib	ActHIB, Hiberix, PedvaxHIB
Hepatitis A vaccine	НерА	Havrix, Vaqta
Hepatitis A and hepatitis B vaccine	НерА-НерВ	Twinrix
Hepatitis B vaccine	НерВ	Engerix–B, Heplisav–B, PreHevbrio, Recombivax HB
Human papillomavirus vaccine	HPV	Gardasil 9
	IIV3	Multiple
Influenza vaccine (inactivated, egg-based)	allV3	Fluad
	HD-IIV3	Fluzone High–Dose
Influenza vaccine (inactivated, cell-culture)	ccIIV3	Flucelvax
Influenza vaccine (recombinant)	RIV3	Flublok
Influenza vaccine (live, attenuated)	LAIV3	FluMist
Measles, mumps, and rubella vaccine	MMR	M–M–R II, Priorix
Moning a google savagraums A. C. W. V. vassina	MenACWY-CRM	Menveo
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-TT	MenQuadfi
Meningococcal serogroup B vaccine	MenB-4C	Bexsero
	MenB–FHbp	Trumenba
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya
Monkeypox vaccine	Мрох	Jynneos
	PCV15	Vaxneuvance
Pneumococcal conjugate vaccine	PCV20	Prevnar 20
	PCV21	Capvaxive
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23
Poliovirus vaccine (inactivated)	IPV	Ipol
Respiratory syncytial virus vaccine	RSV	Abrysvo, Arexvy, mResvia
Tetanus and diphtheria vaccine	Td	Tenivac
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Adacel, Boostrix
Varicella vaccine	VAR	Varivax
Zoster vaccine, recombinant	RZV	Shingrix

^{*}Administer recommended vaccines if vaccination history is incomplete or unknown.

Do not restart or add doses to vaccine series if there are extended intervals between doses.

The use of trade names is for identification purposes only and does not imply endorsement by ACIP or CDC.

How to use the adult immunization schedule

1 Determine recommended vaccinations by age (Table 1) 2 Assess need for additional recommended vaccinations by medical condition or other indication

(Table 2)

Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)

Review contraindications and precautions for vaccine types (Appendix)

Review new or updated ACIP guidance (Addendum)

Report

- Suspected cases of reportable vaccine—preventable diseases or outbreaks to the local or state health department
- Clinically significant adverse events to the Vaccine Adverse Event Reporting System at www.vaers.hhs.gov or 800-822-7967

Questions or comments

Contact www.cdc.gov/cdc-info or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.–8 p.m. ET, Monday through Friday, excluding holidays.



Download the CDC Vaccine Schedules app for providers at www.cdc.gov/vaccines/hcp/imz-schedules/app.html.

Helpful information

- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: www.cdc.gov/acip-recs/hcp/vaccine-specific/
- ACIP Shared Clinical Decision—Making Recommendations: www.cdc.gov/acip/vaccine-recommendations/shared-clinical-decision-making.html
- General Best Practice Guidelines for Immunization www.cdc.gov/vaccines/hcp/imz-best-practices/index.html
- Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html
- Manual for the Surveillance of Vaccine—Preventable Diseases (including case identification and outbreak response): www.cdc.gov/surv-manual/php/index.html



Scan QR code for access to online schedule



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Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2025

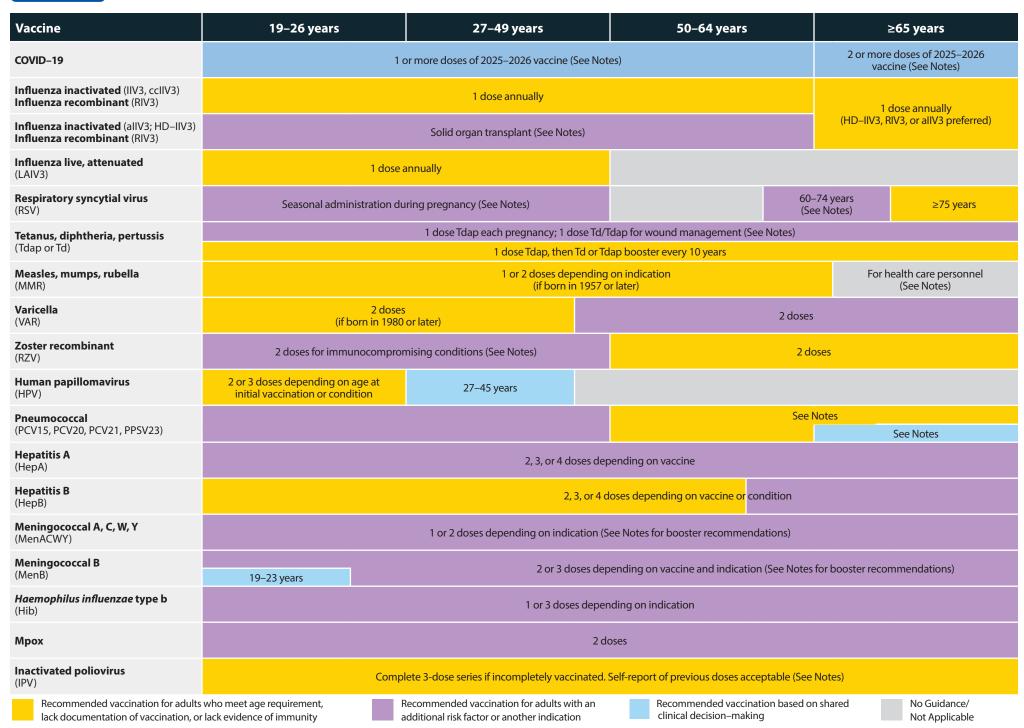
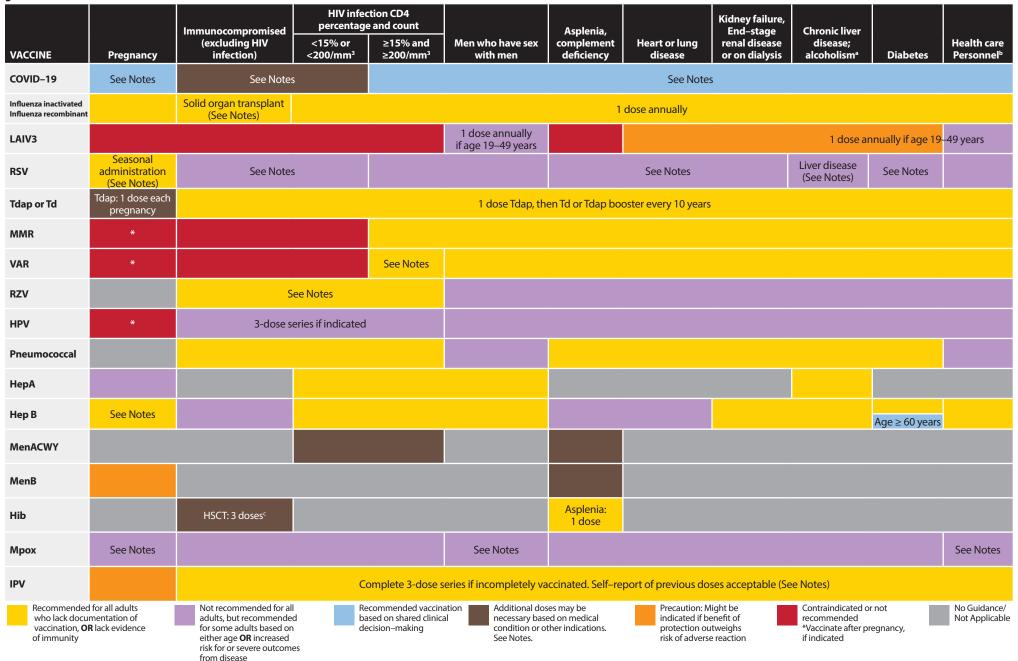




Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2025

Always use this table in conjunction with Table 1 and the Notes that follow. Medical conditions or indications are often not mutually exclusive. If multiple medical conditions or indications are present, refer to quidance in all relevant columns. See Notes for medical conditions or indications not listed.



Notes

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2025

For vaccination recommendations for persons ages 18 years or younger, see the Recommended Child and Adolescent Immunization Schedule, 2025: www.cdc.gov/ vaccines/hcp/imz-schedules/child-adolescent-age.html

Additional Information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated. The repeat dose should be spaced after the invalid dose by the recommended minimum interval. For further details, see Table 3–2, Recommended and minimum ages and intervals between vaccine doses, in General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8–1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at www. cdc.gov/vaccines/hcp/acip-recs/general-recs/ immunocompetence.html
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no–fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, Mpox, and COVID–19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). Mpox and COVID–19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

Shared clinical decision-making

Vaccination based on individual-based decision-making—with an emphasis that the risk-benefit of vaccination is most favorable for individuals who are at an increased risk for severe COVID-19 disease and lowest for individuals who are not at an increased risk according to the CDC list of COVID-19 risk factors (see www.cdc.gov/covid/hcp/clinical-care/underlying-conditions.html). For additional information on shared clinical decision-making, see www.cdc.gov/acip/vaccine-recommendations/shared-clinical-decision-making.html

Current COVID-19 schedule and dosage formulation available at www.cdc.gov/covidschedule.

Administer an age-appropriate COVID-19 vaccine product for each dose. There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Haemophilus influenzae type b vaccination

Special situations

- Anatomical or functional asplenia (including sickle cell disease): 1 dose if previously did not receive Hib vaccine
- **Elective splenectomy:** 1 dose preferably at least 14 days before splenectomy
- Hematopoietic stem cell transplant (HSCT):
 3-dose series 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history



Hepatitis A vaccination

Routine vaccination

• Any person who is not fully vaccinated and requests vaccination (identification of risk factor not required): complete 2-dose series HepA (Havrix 6–12 months apart or Vaqta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA–HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2 = 4 weeks; dose 2 to dose 3 = 5 months])

Special situations

- Any person who is not fully vaccinated and who is at risk for hepatitis A virus infection or severe disease from hepatitis A virus infection: complete 2-dose series HepA or 3-dose series HepA-HepB as above. Risk factors include:
- **Chronic liver disease** including persons with hepatitis B, hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase (ALT) or aspartate aminotransferase (AST) level greater than twice the upper limit of normal.
- HIV infection
- Men who have sex with men
- Injection or noninjection drug use
- Persons experiencing homelessness
- Work with hepatitis A virus in research laboratory or with nonhuman primates with hepatitis A virus infection
- Travel in countries with high or intermediate endemic hepatitis A: HepA–HepB (Twinrix) may be administered on an accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months.
- Close, personal contact with international adoptee (e.g., household or regular babysitting) in first 60 days after arrival from country with high or intermediate endemic hepatitis A: dose 1 as soon as adoption is planned; preferably at least 2 weeks before adoptee's arrival.

- **Pregnancy** if at risk for infection or severe outcome from infection during pregnancy
- **Settings for exposure,** including health care setting serving persons who use injection or noninjection drugs, or group homes and nonresidential day care facilities for developmentally disabled persons (individual risk factor screening not required)

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Hepatitis B vaccination

Routine vaccination

- Age 19-59 years: complete a 2- or 3- or 4-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, PreHevbrio*, 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)
- 3-dose series HepA-HepB (Twinrix) at 0, 1, 6 months (minimum intervals: dose 1 to dose 2 = 4 weeks; 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
- *Note: PreHevbrio is not recommended in pregnancy due to lack of safety data in pregnant women.
- Age 60 years or older without known risk factors for hepatitis B virus infection may receive a HepB vaccine series.
- Age 60 years or older with known risk factors for hepatitis B virus infection should receive a HepB vaccine series.
- Any adult age 60 years of age or older who requests HepB vaccination should receive a HepB vaccine series.
- Risk factors for hepatitis B virus infection include:
- **Chronic liver disease** including persons with hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase (ALT) or aspartate aminotransferase (AST) level greater than twice the upper limit of normal.
- · HIV infection
- **Sexual exposure risk** e.g., sex partners of hepatitis B surface antigen (HBsAg)–positive persons, sexually active persons not in mutually monogamous relationships, persons seeking evaluation or treatment for a sexually transmitted infection, men who have sex with men

Notes

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2025

Hepatitis B vaccination - continued

- · Current or recent injection drug use
- Percutaneous or mucosal risk for exposure to blood e.g., household contacts of HBsAg-positive persons, residents and staff of facilities for developmentally disabled persons, health care and public safety personnel with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids, persons on maintenance dialysis (including in-center or home hemodialysis and peritoneal dialysis), persons who are predialysis, and patients with diabetes**
- Incarceration
- Travel in countries with high or intermediate endemic hepatitis B
- **Age 60 years or older with diabetes: Based on shared clinical decision making, 2-, 3-, or 4-dose series as above.

Special situations

- Patients on dialysis: complete a 3- or 4-dose series
- 3-dose series Recombivax HB at 0, 1, 6 months (Note: Use Dialysis Formulation 1 mL = 40 mcg)
- -4-dose series Engerix–B at 0, 1, 2, and 6 months (Note: Use 2 mL dose instead of the normal adult dose of 1 mL)
- Age 20 years or older with an immunocompromising condition: complete a 2- or 3- or 4-dose series.
- 3-dose series Recombivax HB at 0,1, 6 months (Note: Use Dialysis Formulation 1ml = 40 mcg)
- -4-dose series Engerix–B at 0,1,2, and 6 months (Note: Use 2mL dose instead of the normal adult dose of 1mL)
- 2-doses series Heplisav–B at 0, 1 months
- 3-dose series PreHevbrio* at 0,1, 6 months

Human papillomavirus vaccination

Routine vaccination

- All persons through age 26 years: complete 2- or 3-dose series depending on age at initial vaccination or condition.
- Age 9–14 years at initial vaccination and received
 1 dose or 2 doses less than 5 months apart:
 1 additional dose
- Age 9–14 years at initial vaccination and received
 2 doses at least 5 months apart: HPV vaccination series complete, no additional dose needed
- 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)
- No additional dose recommended when any HPV vaccine series of any valency has been completed using the recommended dosing intervals.

Shared clinical decision-making

• Adults age 27–45 years: Based on shared clinical decision–making, complete a 2-dose series (if initiated age 9–14 years) or 3-dose series (if initiated ≥15 years).

For additional information on shared clinical decision—making for HPV; see www.cdc.gov/vaccines/hcp/admin/downloads/isd-job-aid-scdm-hpv-shared-clinical-decision-making-hpv.pdf

Special situations

- Age ranges recommended above for routine and catch-up vaccination or shared clinical decisionmaking also apply in special situations
- Immunocompromising conditions, including HIV infection: complete 3-dose series, even for those who initiate vaccination at age 9–14 years.
- Pregnancy: Pregnancy testing is not needed before vaccination. HPV vaccination is not recommended until after pregnancy. No intervention needed if inadvertently vaccinated while pregnant.

Influenza vaccination

Routine vaccination

- Age 19 years or older: 1 dose any influenza vaccine appropriate for age and health status annually
- Solid organ transplant recipients aged 19–64 years receiving immunosuppressive medications: HD– IIV3 and alIV3 are acceptable options. No preference over other age–appropriate IIV3 or RIV3.
- Age 65 years or older: Any one of HD-IIV3, RIV3, or allV3 is preferred. If none of these three vaccines is available, then any other age—appropriate influenza vaccine should be used.
- For the 2024–25 season, see www.cdc.gov/mmwr/volumes/73/rr/rr7305a1.htm
- For the 2025–26 season, see the 2025–26 ACIP influenza vaccine recommendations.

Special situations

 Close contacts (e.g., caregivers, healthcare workers) of severely immunosuppressed persons who require a protected environment: should not receive LAIV3. If LAIV3 is given, they should avoid contact with/caring for such immunosuppressed persons for 7 days after vaccination.

Note: Persons with an egg allergy can receive any influenza vaccine (egg-based or non-egg based) appropriate for age and health status.



Measles, mumps, and rubella vaccination

Routine vaccination

- No evidence of immunity to measles, mumps, or rubella: 1 dose
- Evidence of immunity: Born before 1957 (except for health care personnel, see below), documentation of receipt of MMR vaccine, laboratory evidence of immunity or disease (diagnosis of disease without laboratory confirmation is not evidence of immunity)

Special situations

- Pregnancy with no evidence of immunity to rubella: MMR contraindicated during pregnancy; after pregnancy (before discharge from health care facility): 1 dose
- Nonpregnant women of childbearing age with no evidence of immunity to rubella: 1 dose
- HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ for at least 6 months and no evidence of immunity to measles, mumps, or rubella: complete 2-dose series at least 4 weeks apart; MMR contraindicated for HIV infection with CD4 percentage <15% or CD4 count <200 cells/mm³
- **Severe immunocompromising conditions:** MMR contraindicated
- Students in postsecondary educational institutions, international travelers, and household or close, personal contacts of immunocompromised persons with no evidence of immunity to measles, mumps, or rubella: complete 2-dose series at least 4 weeks apart if previously did not receive any doses of MMR or 1 dose if previously received 1 dose MMR
- In mumps outbreak settings, for information about additional doses of MMR (including 3rd dose of MMR), see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm

- Health care personnel:
- Born before 1957 with no evidence of immunity to measles, mumps, or rubella: Consider 2-dose series at least 4 weeks apart for protection against measles or mumps or 1 dose for protection against rubella.
- Born in 1957 or later with no evidence of immunity to measles, mumps, or rubella: complete 2-dose series at least 4 weeks apart for protection against measles or mumps or at least 1 dose for protection against rubella.

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Meningococcal vaccination

Special situations for MenACWY

- Anatomical or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use: 2-dose primary series Menveo or MenQuadfi at least 8 weeks apart; 1 booster dose 5 years after primary series and every 5 years if risk remains
- Travel in countries with hyperendemic or epidemic meningococcal disease, or for microbiologists routinely exposed to Neisseria meningitidis: 1 dose Menveo or MenQuadfi; 1 booster dose 5 years after primary series and every 5 years if risk remains
- First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) or military recruits: 1 dose Menveo or MenQuadfi

For MenACWY recommendations in outbreak setting (e.g., in community or organizational settings, or among men who have sex with men) and additional meningococcal vaccination information, see www.cdc. gov/mmwr/volumes/69/rr/rr6909a1.htm

Shared clinical decision-making for MenB

- Adolescents and young adults age 16–23 years (age 16–18 years preferred)* not at increased risk for meningococcal disease: based on shared clinical decision–making
- Bexsero or Trumenba (use same brand for all doses): 2-dose series at least 6 months apart (if dose 2 is administered earlier than 6 months, administer dose 3 at least 4 months after dose 2)

*To optimize rapid protection (e.g., for students starting college in less than 6 months), a 3-dose series (0, 1–2, 6 months) may be administered.

For additional information on shared clinical decision—making for MenB, see www.cdc.gov/vaccines/media/pdfs/2025/03/2024-isd-job-aid-scdm-menb-508-remediated.pdf

Notes

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2025

Meningococcal vaccination - continued

Special situations for MenB

- Anatomical or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use, or microbiologists routinely exposed to Neisseria meningitidis.
- Bexsero or Trumenba (use same brand for all doses including booster doses): 3-dose primary series at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed; if dose 3 is administered earlier than 4 months after dose 2, a 4th dose should be administered at least 4 months after dose 3).
- **Booster doses:** 1 booster dose one year after primary series and every 2–3 years if risk remains
- Pregnancy: Delay MenB until after pregnancy due to lack of safety data in pregnant women. May administer if at increased risk and vaccination benefits outweigh potential risks.

For MenB recommendations in outbreak setting (e.g., in community or organizational settings, or among men who have sex with men) and additional meningococcal vaccination information, see ww.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Note: MenB vaccines may be administered simultaneously with MenACWY vaccines if indicated, but at a different anatomic site, if feasible.

Adults may receive a single dose of Penbraya (MenACWY–TT/MenB–FHbp) as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day. For adults not at increased risk, if Penbraya is used for dose 1 MenB, then MenB–FHbp (Trumenba) should be administered for dose 2 MenB. For adults at increased risk of meningococcal disease, Penbraya may be used for additional MenACWY and MenB doses (including booster doses) if both would be given on the same clinic day **and** at least 6 months have elapsed since most recent Penbraya dose.

Monkeypox virus vaccination

Special situations

• Any person at risk for monkeypox infection: complete 2-dose series, 28 days apart.

Risk factors for monkeypox infection include:

- Gay, bisexual, or other MSM, or a person who has sex with gay, bisexual, or other MSM who in the past 6 months have had one of the following:
- · A new diagnosis of at least 1 sexually transmitted disease
- · More than 1 sex partner
- · Sex at a commercial sex venue
- · Sex in association with a large public event in a geographic area where monkeypox virus transmission is occurring
- Persons who are sexual partners of the persons described above
- Persons who anticipate experiencing any of the situations described above
- Pregnancy: There is currently no ACIP recommendation for Jynneos use in pregnancy due to lack of safety data in pregnant women. Pregnant women with any risk factor described above may receive Jynneos.
- Health care personnel: Vaccination to protect against occupational risk in healthcare settings is not routinely recommended.

For detailed information, see www.cdc.gov/mpox/hcp/vaccine-considerations/vaccination-overview.html.

Pneumococcal vaccination

Routine vaccination

- Age 50 years or older who have:
- Not previously received a dose of PCV13, PCV15, PCV20, or PCV21 or whose previous vaccination history is unknown: 1 dose PCV15 or 1 dose PCV20 or 1 dose PCV21
- If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PCV7:** follow the recommendation above.
- Previously received only PCV13: 1 dose PCV20 or 1 dose PCV21 at least 1 year after the last PCV13 dose
- Previously received only PPSV23: 1 dose PCV15 or 1 dose PCV20 or 1 dose PCV21, at least 1 year after the last PPSV23 dose.
- · If PCV15 is used, no additional PPSV23 doses are recommended.
- Previously received both PCV13 and PPSV23 but NO PPSV23 was received at age 65 years or older:
 1 dose PCV20 or 1 dose PCV21 at least 5 years after the last pneumococcal vaccine dose.
- Previously received both PCV13 and PPSV23, AND PPSV23 was received at age 65 years or older: Based on shared clinical decision—making, 1 dose of PCV20 or 1 dose of PCV21 at least 5 years after the last pneumococcal vaccine dose.



Pneumococcal vaccination - continued

Special situations

- Age 19–49 years with certain underlying medical conditions or other risk factors** who have:
- Not previously received a PCV13, PCV15, PCV20, or PCV21 or whose previous vaccination history is unknown: 1 dose PCV15 or 1 dose PCV20 or 1 dose PCV21
- If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PCV7:** follow the recommendation above.
- **Previously received only PCV13:** 1 dose PCV20 or 1 dose PCV21 at least 1 year after the last PCV13 dose
- **Previously received only PPSV23:** 1 dose PCV15 or 1 dose PCV20 or 1 dose PCV21, at least 1 year after the last PPSV23 dose.
- · If PCV15 is used, no additional PPSV23 doses are recommended.
- Previously received PCV13 and 1 dose of PPSV23:
- · Cochlear implant, cerebrospinal fluid leak, or an immunocompromising condition*: 1 dose PCV20 or 1 dose PCV21 at least 5 years after the last pneumococcal vaccine dose.
- · Alcoholism, chronic heart/liver/lung disease, cigarette smoking, or diabetes mellitus: no additional PCV or PPSV23 doses recommended at this time. Review pneumococcal recommendations when age 50 years or older.

Adults aged 19 years and older who have received PCV20 or PCV21: no additional pneumococcal vaccine dose recommended.

Pregnancy: no recommendation for PCV or PPSV23 due to limited data. Summary of existing data on pneumococcal vaccination during pregnancy can be found at www.cdc.gov/mmwr/volumes/72/rr/rr7203a1.htm.

PPSV23 not available: adults aged 19 years or older who received PCV15 but have not yet completed PPSV23 series, can complete the series with either 1 dose of PCV20 or 1 dose of PCV21 if they no longer have access to PPSV23.

For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app which can be downloaded here: www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/app.html.

*Note: Immunocompromising conditions include chronic renal failure, nephrotic syndrome, immunodeficiencies, iatrogenic immunosuppression, generalized malignancy, HIV infection, Hodgkin disease, leukemia, lymphoma, multiple myeloma, solid organ transplant, congenital or acquired asplenia, or sickle cell disease or other hemoglobinopathies.

***Note: Underlying medical conditions or other risk factors include alcoholism, chronic heart/liver/ lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, CSF leak, diabetes mellitus, generalized malignancy, HIV infection, Hodgkin disease, immunodeficiencies, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, solid organ transplant, or sickle cell disease or other hemoglobinopathies.

Poliovirus vaccination

Routine vaccination

• Adults known or suspected to be unvaccinated or incompletely vaccinated: administer remaining doses (1, 2, or 3 IPV doses) to complete a 3-dose primary series.* Unless there are specific reasons to believe they were not vaccinated, most adults who were born and raised in the United States can assume they were vaccinated against polio as children.

Special situations

- Adults at increased risk for exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster.
- *Note: Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see www.cdc.gov/vaccines/ vpd/polio/hcp/recommendations.html



Respiratory syncytial virus vaccination

Routine vaccination

- Pregnant women of any age:
- Pregnant at 32 weeks 0 days through 36 weeks and 6 days gestation from September through January in most of the continental United States*: 1 dose Abrysvo. Administer RSV vaccine regardless of previous RSV infection.
- Either maternal RSV vaccination with Abrysvo or infant immunization with nirsevimab (RSV monoclonal antibody) is recommended to prevent severe respiratory syncytial virus disease in infants.
- All other pregnant women: RSV vaccine not recommended
- **Subsequent pregnancies:** additional doses not recommended. No data are available to inform whether additional doses are needed in subsequent pregnancies. Infants born to pregnant women who received RSV vaccine during a previous pregnancy should receive nirsevimab.
- *Note: Providers in jurisdictions with RSV seasonality that differs from most of the continental United States (e.g., Alaska, jurisdictions with tropical climate) should follow guidance from public health authorities on timing of administration. Refer to the 2025 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

Age 75 years or older

- Unvaccinated: 1 dose (Arexvy or Abrysvo or mResvia).
 Additional doses not recommended
- Previously vaccinated: additional doses not recommended. No data are available to inform whether additional doses are needed.

Special situations

- Age 60-74 years:
- Unvaccinated and at increased risk of severe RSV disease**: 1 dose (Arexvy or Abrysvo or mResvia).
 Additional doses not recommended.
- **Previously vaccinated:** additional doses not recommended. No data are available to inform whether additional doses are needed.

Persons 60 years and older can get RSV vaccine at any time but it is best to administer in late summer and early fall before RSV spreads in communities—ideally August through October in most of continental United States. For further guidance, see www.cdc.gov/mmwr/volumes/73/wr/mm7332e1.htm.

- **Note: People can self-attest to the presence of a risk factor. The following medical and other conditions increase the risk of severe RSV disease:
- Chronic cardiovascular disease e.g., heart failure, coronary artery disease, congenital heart disease. Excludes isolated hypertension.
- Chronic lung or respiratory disease e.g., chronic obstructive pulmonary disease, emphysema, asthma, interstitial lung disease, cystic fibrosis
- End stage renal disease or dependence on hemodialysis or other renal replacement therapy
- Diabetes mellitus complicated by chronic kidney disease, neuropathy, retinopathy, or other end-organ damage
- Diabetes mellitus requiring treatment with insulin or sodium–glucose cotransporter 2 (SGLT2) inhibitor
- Neurologic or neuromuscular conditions causing impaired airway clearance or respiratory muscle weakness e.g., post-stroke dysphagia, amyotrophic lateral sclerosis, muscular dystrophy. Excludes history of stroke without impaired airway clearance.
- Chronic liver disease e.g., cirrhosis

- Chronic hematologic conditions e.g., sickle cell disease, thalassemia
- Severe obesity (body mass index ≥ 40 kg/m2)
- Moderate or severe immune compromise
- Residence in a nursing home
- Other chronic medical conditions or risk factors that a health care provider determines would increase the risk of severe disease due to viral respiratory infection e.g., frailty, concern for presence of undiagnosed chronic medical conditions, residence in a remote or rural community where escalation of medical care is challenging.



Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

- Completed primary series and received at least
 1 dose Tdap at age 10 years or older: Td or Tdap every
 10 years thereafter
- Completed primary series and did NOT receive Tdap at age 10 years or older: 1 dose Tdap, then Td or Tdap every 10 years thereafter
- Unvaccinated or incomplete primary vaccination series for tetanus, diphtheria, or pertussis: administer remaining doses (1, 2, or 3 doses) to complete 3-dose primary series. 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any Td dose), then Td or Tdap every 10 years thereafter.

Special situations

- **Pregnancy:** 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36
- Wound management: Persons with 3 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. If a tetanus—toxoid—containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/volumes/69/wr/mm6903a5.htm

Varicella vaccination

Routine vaccination

- No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicella—containing vaccine (VAR or MMRV [measles—mumps—rubella—varicella vaccine] for children); if previously received 1 dose varicella—containing vaccine, 1 dose at least 4 weeks after first dose.
- Evidence of immunity: U.S.-born before 1980 (except for pregnant women and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

- Pregnancy with no evidence of immunity to varicella: VAR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose if previously received 1 dose varicellacontaining vaccine or dose 1 of 2-dose series (dose 2: 4–8 weeks later) if previously did not receive any varicella–containing vaccine, regardless of whether U.S.–born before 1980.
- Health care personnel with no evidence of immunity to varicella: 1 dose if previously received 1 dose varicella–containing vaccine; 2-dose series 4–8 weeks apart if previously did not receive any varicella–containing vaccine, regardless of whether U.S.–born before 1980.
- HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ with no evidence of immunity: Vaccination may be considered (2 doses 3 months apart); VAR contraindicated for HIV infection with CD4 percentage <15% or CD4 count <200 cells/mm³.
- Severe immunocompromising conditions: VAR contraindicated

Zoster vaccination

Routine vaccination

- Age 50 years or older*: 2-dose series recombinant zoster vaccine (RZV, Shingrix) 2–6 months apart (minimum interval: 4 weeks; repeat dose if administered too soon), regardless of previous herpes zoster or history of zoster vaccine live (ZVL, Zostavax) vaccination.
- *Note: Serologic evidence of prior varicella is not necessary for zoster vaccination. However, if serologic evidence of varicella susceptibility becomes available, providers should follow ACIP guidelines for varicella vaccination first. RZV is not indicated for the prevention of varicella, and there are limited data on the use of RZV in persons without a history of varicella or varicella vaccination.

Special situations

- Pregnancy: There is currently no ACIP recommendation for RZV use in pregnancy.
 Consider delaying RZV until after pregnancy.
- Immunocompromising conditions (including persons with HIV regardless of CD4 count)**: 2-dose series recombinant zoster vaccine (RZV, Shingrix) 2–6 months apart (minimum interval: 4 weeks; repeat dose if administered too soon). For detailed information, see www.cdc.gov/shingles/hcp/vaccine-considerations/immunocompromised-adults.html
- **Note: If there is no documented history of varicella, varicella vaccination, or herpes zoster, providers should refer to the clinical considerations for use of RZV in immunocompromised adults aged ≥19 years and the ACIP varicella vaccine recommendations for further guidance: www.cdc.gov/mmwr/volumes/71/wr/mm7103a2.htm



Contraindications and Precautions to Commonly Used Vaccines

Adapted from Table 4–1 in Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization: Contraindication and Precautions, Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2024–25 Influenza Season | MMWR (cdc.gov), and Contraindications and Precautions for COVID–19 Vaccination

Vaccines and Other Immunizing Agents	Contraindicated or Not Recommended ¹	Precautions ²
COVID–19 mRNA vaccines [Comirnaty, mNexspike, Spikevax]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID–19 vaccine ³	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID-19 vaccine³; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
COVID–19 protein subunit vaccine [Nuvaxovid]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Nuvaxovid ³	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of Nuvaxovid³; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of Nuvaxovid Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
Influenza, egg-based, inactivated injectable (IIV3)	 Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) 	 Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Moderate or severe acute illness with or without fever
Influenza, cell culture–based inactivated injectable (ccllV3) [Flucelvax]	 Severe allergic reaction (e.g., anaphylaxis) to any ccllV of any valency, or to any component³ of ccllV3 	 Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, RIV, or LAIV of any valency. If using ccIIV3, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, recombinant injectable (RIV3) [Flublok]	• Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component ³ of RIV3	 Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, ccIIV, or LAIV of any valency. If using RIV3, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, live attenuated (LAIV3) [Flumist]	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) Anatomic or functional asplenia Immunocompromised due to any cause including, but not limited to, medications and HIV infection Close contacts or caregivers of severely immunosuppressed persons who require a protected environment Pregnancy Cochlear implant Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear, or any other cranial CSF leak Received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days.	 Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Asthma in persons aged 5 years or older Persons with underlying medical conditions (other than those listed under contraindications) that might predispose to complications after wild-type influenza virus infection [e.g., chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)] Moderate or severe acute illness with or without fever

- 1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.
- 2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.
- 3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. See Package inserts for U.S.-licensed vaccines.



Vaccine	Contraindicated or Not Recommended ¹	Precautions ²	
Haemophilus influenzae type b (Hib)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	Moderate or severe acute illness with or without fever	
Hepatitis A (HepA)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³ including neomycin	Moderate or severe acute illness with or without fever	
Hepatitis B (HepB)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including yeast Pregnancy: PreHevbrio is not recommended due to lack of safety data in pregnant women. Use other hepatitis B vaccines if HepB is indicated⁴ 	Moderate or severe acute illness with or without fever	
Hepatitis A–Hepatitis B vaccine (HepA–HepB) [Twinrix]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³ including neomycin and yeast	Moderate or severe acute illness with or without fever	
Human papillomavirus (HPV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Pregnancy: HPV vaccination not recommended 	Moderate or severe acute illness with or without fever	
Measles, mumps, rubella (MMR)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	Recent (≤11 months) receipt of antibody–containing blood product (specific interval depends on product) History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing or interferon–gamma release assay (IGRA) testing Moderate or severe acute illness with or without fever	
Meningococcal ACWY (MenACWY) (MenACWY–CRM) [Menveo] (MenACWY–TT) [MenQuadfi]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For MenACWY–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 	Moderate or severe acute illness with or without fever	
Meningococcal B (MenB) MenB–4C [Bexsero] MenB–FHbp [Trumenba]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	 Pregnancy For MenB-4C only: Latex sensitivity Moderate or severe acute illness with or without fever 	
Meningococcal ABCWY (MenACWY–TT/MenB–FHbp) [Penbraya]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe allergic reaction to a tetanus toxoid–containing vaccine 	Moderate or severe acute illness, with or without fever	
Mpox [Jynneos]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	Moderate or severe acute illness, with or without fever	
Pneumococcal conjugate (PCV15, PCV20, PCV21)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe allergic reaction (e.g., anaphylaxis) to any diphtheria–toxoid–containing vaccine or to its vaccine component³ 	Moderate or severe acute illness with or without fever	
Pneumococcal polysaccharide (PPSV23)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	Moderate or severe acute illness with or without fever	
Poliovirus vaccine, inactivated (IPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	PregnancyModerate or severe acute illness with or without fever	
Respiratory syncytial virus vaccine (RSV)	Severe allergic reaction (e.g., anaphylaxis) to a vaccine component	Moderate or severe acute illness with or without fever	
Tetanus, diphtheria, and acellular pertussis (Tdap)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to 	Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus–toxoid–containing vaccine	
Tetanus, diphtheria (Td)	another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap	 History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine Moderate or severe acute illness with or without fever For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized 	
Varicella (VAR)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	 Recent (≤11 months) receipt of antibody–containing blood product (specific interval depends on product) Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination) Use of aspirin or aspirin–containing products Moderate or severe acute illness with or without fever 	
Zoster recombinant vaccine (RZV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	Moderate or severe acute illness with or without fever Current episode of herpes zoster	

- 1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.qov/vaccines/hcp/acip-recs/general-recs/contraindications.html.
- 2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html.
- 3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at www. fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states.
- 4. For information on the pregnancy exposure registry for persons who were inadvertently vaccinated with PreHevbrio while pregnant, please visit www.prehevbrio.com/#safety.



In addition to the recommendations presented in the previous sections of this immunization schedule, ACIP has approved the following recommendations by majority vote since October 24, 2024.

Recommendations	Effective Date of Recommendation*
MenABCWY vaccine may be used when both MenACWY and MenB are indicated at the same visit in: 1. healthy persons aged 16–23 years (routine schedule) when shared clinical decision-making favors administration of MenB vaccine and 2. persons aged = 10 years who are at increased risk for meningococcal disease (e.g., because of persistent complement deficiencies, complement inhibitor use, or functional or anatomic asplenia)	June 25, 2025
 Adults 50–59 years of age who are at increased risk of severe RSV disease^a may receive a single dose of RSV vaccine^{b.c}. a. CDC will publish Clinical Considerations that describe chronic medical conditions and other risk factors for severe RSV disease for use in this risk-based recommendation. b. At this time, RSV vaccination is recommended as a single dose only. Persons who have already received RSV vaccination are NOT recommended to receive another dose. c. RSV vaccine can be administered with any product licensed in this age group. As of March 27, 2025, that includes GSK's Arexvy and Pfizer's Abrysvo. There is no preferential recommendation for any licensed product over another. 	June 25, 2025
ACIP reaffirms the recommendations for routine annual influenza vaccination of all persons aged = 6 months who do not have contraindications for the 2025–2026 season	July 22, 2025
ACIP recommends only single-dose formulations of annual influenza vaccines that are free of thimerosal as a preservative for three populations: - Children 18 years or younger - Pregnant women - All adults	July 22, 2025
	MenABCWY vaccine may be used when both MenACWY and MenB are indicated at the same visit in: 1. healthy persons aged 16–23 years (routine schedule) when shared clinical decision-making favors administration of MenB vaccine and 2. persons aged = 10 years who are at increased risk for meningococcal disease (e.g., because of persistent complement deficiencies, complement inhibitor use, or functional or anatomic asplenia) Adults 50–59 years of age who are at increased risk of severe RSV disease³ may receive a single dose of RSV vaccine⁵c. a. CDC will publish Clinical Considerations that describe chronic medical conditions and other risk factors for severe RSV disease for use in this risk-based recommendation. b. At this time, RSV vaccination is recommended as a single dose only. Persons who have already received RSV vaccination are NOT recommended to receive another dose. c. RSV vaccine can be administered with any product licensed in this age group. As of March 27, 2025, that includes GSK's Arexvy and Pfizer's Abrysvo. There is no preferential recommendation for any licensed product over another. ACIP reaffirms the recommendations for routine annual influenza vaccination of all persons aged = 6 months who do not have contraindications for the 2025–2026 season ACIP recommends only single-dose formulations of annual influenza vaccines that are free of thimerosal as a preservative for three populations: - Children 18 years or younger - Pregnant women

^{*}The effective date is the date when the recommendation was adopted and became official.