

# Recommended Adult Immunization Schedule for ages 19 years or older

UNITED STATES  
**2025**

## Vaccines in the Adult Immunization Schedule\*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty/Pfizer-BioNTech COVID-19 Vaccine Spikevax/Moderna COVID-19 Vaccine
<i>Haemophilus influenzae</i> type b vaccine	1vCOV-aPS	Novavax COVID-19 Vaccine
Hepatitis A vaccine	Hib	ActiHIB, Hiberix, PedvaxHIB
Hepatitis A and hepatitis B vaccine	HepA	Havrix, Vaclac
Hepatitis B vaccine	HepA-HepB	Twinrix
Human papillomavirus vaccine	HepB	Engerix-B, Heplisav-B, PreHevbio, Recombivax HB
HPV	HPV	Gardasil 9
Influenza vaccine (inactivated, egg-based)	IV3	Multiple
Influenza vaccine (inactivated, cell-culture)	allIV3	Fluad
Influenza vaccine (recombinant)	HD-IV3	Fluzone High-Dose
Influenza vaccine (live, attenuated)	ccIV3	Flucelvax
Measles, mumps, and rubella vaccine	RIV3	Flublok
Meningococcal serogroups A, C, W, Y vaccine	LAIv3	FluMist
Meningococcal serogroup B vaccine	MMR	M-M-R II, Priorix
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-CRM	Menveo
Meningococcal serogroup B vaccine	MenACWY-TT	MenQuadfi
Meningococcal polysaccharide vaccine	MenB-FHbp	Bexsero
Mpox vaccine	MenACWY-TT/ MenB-FHbp	Trumenba
Pneumococcal conjugate vaccine	Mpox	Penbraya
Pneumococcal polysaccharide vaccine	PCV15	Jynneos
Pneumococcal polysaccharide vaccine (inactive)	PCV20	Vaxneuvance
Pneumococcal polysaccharide vaccine	PCV21	Prevnar 20
Pneumococcal polysaccharide vaccine	PPSV23	Capvaxive
Poliovirus vaccine (inactivated)	IPV	Pneumovax 23
Respiratory syncytial virus vaccine	RSV	Ipol
Tetanus and diphtheria vaccine	Td	Abrysvo, Arexyv, mResvia
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Tenivac
Varicella vaccine	VAR	Adacel, Boostrix
Zoster vaccine, recombinant	RZV	Varivax
		Shingrix

## How to use the adult immunization schedule

- 1** Determine recommended vaccinations by age ([Table 1](#))
- 2** Assess need for additional vaccinations by medical condition or other indication ([Table 2](#))
- 3** Review vaccine types, dosing frequencies and intervals, and medical considerations for special situations ([Notes](#))
- 4** Review contraindications and precautions for vaccine types ([Appendix](#))
- 5** Review new or updated ACIP guidance ([Addendum](#))

Recommended by the Advisory Committee on Immunization Practices ([www.cdc.gov/acip](http://www.cdc.gov/acip)) and approved by the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)), American College of Physicians ([www.acponline.org](http://www.acponline.org)), American Academy of Family Physicians ([www.aafp.org](http://www.aafp.org)), American College of Obstetricians and Gynecologists ([www.acog.org](http://www.acog.org)), American College of Nurse-Midwives ([www.midwife.org](http://www.midwife.org)), American Academy of Physician Associates ([www.aapa.org](http://www.aapa.org)), American Pharmacists Association ([www.pharmacist.com](http://www.pharmacist.com)), and Society for Healthcare Epidemiology of America ([www.shea-online.org](http://www.shea-online.org)).

### 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](http://www.vaers.hhs.gov) or 800-822-7967

### Questions or comments

Contact [www.cdc.gov/cdc-info](http://www.cdc.gov/cdc-info) or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 am–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](http://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/](http://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](http://www.cdc.gov/acip/vaccine-recommendations/shared-clinical-decision-making.html)
- General Best Practice Guidelines for Immunization [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html)
- Vaccine information statements: [www.cdc.gov/vaccines/hcp/vis/index.html](http://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](http://www.cdc.gov/surv-manual/php/index.html)

Scan QR code for access to online schedule



**U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION**



\*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 the ACIP or CDC.

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

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
<b>COVID-19</b>		1 or more doses of 2024–2025 vaccine (See Notes)		2 or more doses of 2024–2025 vaccine (See Notes)
<b>Influenza inactivated (IIV3, cIIV3)</b>		1 dose annually		
<b>Influenza recombinant (RIV3)</b>		Solid organ transplant (See Notes)		1 dose annually (HD-IIV3, RIV3, or allV3 preferred)
<b>Influenza live, attenuated (LAIV3)</b>	1 dose annually			
<b>Respiratory syncytial virus (RSV)</b>	Seasonal administration during pregnancy (See Notes)		60 through 74 years (See Notes)	≥75 years
<b>Tetanus, diphtheria, pertussis (Tdap or Td)</b>	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (See Notes)	1 dose Tdap, then Td or Tdap booster every 10 years		
<b>Measles, mumps, rubella (MMR)</b>		1 or 2 doses depending on indication (if born in 1957 or later)		For health care personnel (See Notes)
<b>Varicella (VAR)</b>	2 doses (if born in 1980 or later)		2 doses	
<b>Zoster recombinant (RZV)</b>	2 doses for immunocompromising conditions (See Notes)			2 doses
<b>Human papillomavirus (HPV)</b>	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
<b>Pneumococcal (PCV15, PCV20, PCV21, PPSV23)</b>			See Notes	See Notes
<b>Hepatitis A (HepA)</b>				
<b>Hepatitis B (HepB)</b>		2, 3, or 4 doses depending on vaccine	2, 3, or 4 doses depending on vaccine or condition	
<b>Meningococcal A, C, W, Y (MenACWY)</b>			1 or 2 doses depending on indication (See Notes for booster recommendations)	
<b>Meningococcal B (MenB)</b>	19 through 23 years		2 or 3 doses depending on vaccine and indication (See Notes for booster recommendations)	
<b>Haemophilus influenzae type b (Hib)</b>			1 or 3 doses depending on indication	
<b>Mpox</b>			2 doses	
<b>Inactivated poliovirus (IPV)</b>		Complete 3-dose series if incompletely vaccinated. Self-report of previous doses acceptable (See Notes)		No Guidance/Not Applicable
			Recommended vaccination for adults with an additional risk factor or another indication	Recommended vaccination based on shared clinical decision-making

## 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 guidance in all relevant columns. See Notes for medical conditions or indications not listed.

VACCINE	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count <15% or <200mm <sup>3</sup>	≥15% and ≥200mm <sup>3</sup>	Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease; alcoholism <sup>a</sup>	Diabetes	Health care Personnel <sup>b</sup>
<b>COVID-19</b>		See Notes									
Influenza inactivated Influenza recombinant		Solid organ transplant (See Notes)									
<b>LAIv3</b>		Seasonal administration (See Notes)	See Notes								
<b>RSV</b>		Tdap: 1 dose each pregnancy									
<b>Tdap or Td</b>		*									
<b>MMR</b>		*									
<b>VAR</b>		*				See Notes					
<b>RZV</b>						See Notes					
<b>HPV</b>		*				3-dose series if indicated					
<b>Pneumococcal</b>											
<b>HepA</b>											
<b>Hep B</b>											
<b>MenACWY</b>											
<b>MenB</b>											
<b>Hib</b>											
<b>Mpox</b>											
<b>IPV</b>											

a. Precaution for LAIv3 does not apply to alcoholism.  
b. See Notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.

c. Hematopoietic stem cell transplant.

No Guidance/  
Not Applicable

Contraindicated or not recommended

\*Vaccinate after pregnancy, if indicated

Not recommended for all adults, but recommended for some adults based on either age OR increased risk for or severe outcomes from disease

Recommended for all adults, and additional doses may be necessary based on medical condition or other indications. See Notes.

Recommended vaccination based on shared clinical decision-making

Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction

See Notes

Notes

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

COVID-19 vaccination	
Routine vaccination	Special situations
<b>Age 19–64 years</b>	<b>Persons who are moderately or severely immunocompromised. Use vaccine from the same manufacturer for all doses in the initial vaccination series.</b>
<b>Unvaccinated:</b>	<b>Unvaccinated:</b>
- 1 dose 2024–25 Moderna or Pfizer-BioNTech - 2 doses 2024–25 Novavax at 0, 3–8 weeks	- 4 doses ( <b>3-dose initial series 2024–25 Moderna</b> at 0, 4 weeks, and at least 4 weeks after dose 2, followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later [minimum interval 2 months]). May administer additional doses.*
<b>Previously vaccinated before 2024–25 vaccine with:</b>	<b>Previously vaccinated before 2024–25 vaccine with:</b>
<b>1 or more doses Moderna or Pfizer-BioNTech:</b> 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.	- <b>1 dose Novavax:</b> 1 dose 2024–25 Novavax 3–8 weeks after most recent dose. If more than 8 weeks after most recent dose, administer 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech.
<b>2 or more doses Novavax:</b> 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.	- <b>3 doses (2-dose initial series 2024–25 Novavax</b> at 0, 3 weeks, followed by 1 dose Moderna or Novavax or Pfizer-BioNTech 6 months later [minimum interval 2 months]). May administer additional doses.*
<b>1 or more doses Janssen:</b> 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech.	<b>Incomplete initial vaccination series before 2024–25 vaccine:</b>
<b>Age 65 years and older</b>	<b>Previous vaccination with Moderna</b>
<b>Unvaccinated:</b> follow recommendations above for unvaccinated persons ages 19–64 years <b>and</b> administer dose 2 of 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months).	<b>1 dose Moderna:</b> complete initial series with 2 doses 2024–25 Moderna at least 4 weeks apart (administer dose 1 4 weeks after most recent dose), followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses.*
<b>Previously vaccinated before 2024–25 vaccine:</b>	<b>2 doses Moderna:</b> complete initial series with 1 dose 2024–25 Moderna at least 4 weeks after most recent dose, followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses.*
For vaccination of persons with immunodeficiencies, see Table 8–1, Vaccination of persons with primary and secondary immunodeficiencies, in <i>General and Secondary Practice Guidelines for Immunization</i> at <a href="http://www.cdc.gov/travel/">www.cdc.gov/travel/</a> .	For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
Information on travel vaccination requirements and recommendations is available at <a href="http://www.cdc.gov/travel/">www.cdc.gov/travel/</a> .	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 <a href="http://www.hrsa.gov/vaccinecompensation">www.hrsa.gov/vaccinecompensation</a> or <a href="http://www.hrsa.gov/ciccp">www.hrsa.gov/ciccp</a> .

## Notes

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

### COVID-19 vaccination - continued

#### Previous vaccination with Pfizer-BioNTech

- 1 dose **Pfizer-BioNTech**: complete initial series with 2 doses 2024–25 Pfizer-BioNTech at least 4 weeks apart (administer dose 1 3 weeks after most recent dose), followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses.\*

- 2 doses **Pfizer-BioNTech**: complete initial series with 1 dose 2024–25 Pfizer-BioNTech at least 4 weeks after most recent dose, followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses.\*

#### Previous vaccination with Novavax

- 1 dose **Novavax**: complete initial series with 1 dose 2024–25 Novavax at least 3 weeks after most recent dose, followed by 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses.\*

#### Completed the initial vaccination series before 2024–25 vaccine with:

- 3 or more doses **Moderna** or 3 or more doses **Pfizer-BioNTech**: 2 doses 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months apart (minimum interval 2 months). Administer dose 1 at least 8 weeks after the most recent dose. May administer additional doses.\*

- 2 or more doses **Novavax**: 2 doses 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months apart (minimum interval 2 months). Administer dose 1 at least 8 weeks after the most recent dose. May administer additional doses.\*

- 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

#### \*Additional doses of 2024–25 COVID-19 vaccine for moderately or severely immunocompromised:

- based on shared clinical decision-making and administered at least 2 months after the most recent dose (see Table 2 at [www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#table-02.](http://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#table-02.)). For description of moderate and severe immunocompromising conditions and treatment, see [www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#immunocompromising-conditions-treatment](http://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#immunocompromising-conditions-treatment).

- 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.

- Current COVID-19 schedule and dosage formulation available at [www.cdc.gov/covidsschedule](http://www.cdc.gov/covidsschedule). For more information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see [www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines.html#Interchangeability](http://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines.html#Interchangeability).

### 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

## Notes

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

#### Hepatitis A vaccination - continued

- 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 through 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 persons.

- **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 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

##### 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

## Notes

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

Human papillomavirus vaccination	Influenza vaccination	Measles, mumps, and rubella vaccination
<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>All persons through age 26 years:</b> complete 2– or 3-dose series depending on age at initial vaccination or condition.</li><li><b>Age 9–14 years at initial vaccination and received 1 dose or 2 doses less than 5 months apart:</b> 1 additional dose</li><li><b>Age 9–14 years at initial vaccination and received 2 doses at least 5 months apart:</b> HPV vaccination series complete, no additional dose needed</li><li><b>Age 15 years or older at initial vaccination:</b> 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)</li><li>No additional dose recommended when any HPV vaccine series of any valency has been completed using the recommended dosing intervals.</li></ul> <p><b>Shared clinical decision-making</b></p> <ul style="list-style-type: none"><li><b>Adults age 27–45 years:</b> Based on shared clinical decision-making, complete a 2-dose series (if initiated age 9–14 years) or 3-dose series (if initiated <math>\geq 15</math> years). For additional information on shared clinical decision-making for HPV, see <a href="http://www.cdc.gov/vaccines/hcp/admin-downloads/isd-job-aid-scdm-hpv-shared-clinical-decision-making-hpv.pdf">www.cdc.gov/vaccines/hcp/admin-downloads/isd-job-aid-scdm-hpv-shared-clinical-decision-making-hpv.pdf</a></li></ul> <p><b>Special situations</b></p> <ul style="list-style-type: none"><li>Age ranges recommended above for routine and catch-up vaccination or shared clinical decision-making also apply in special situations</li></ul> <p><b>Immunocompromising conditions, including HIV infection:</b> complete 3-dose series, even for those who initiate vaccination at age 9 through 14 years.</p> <p><b>Pregnancy:</b> Pregnancy testing is not needed before vaccination. HPV vaccination is not recommended until after pregnancy. No intervention needed if inadvertently vaccinated while pregnant.</p>	<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>Age 19 years or older:</b> 1 dose any influenza vaccine appropriate for age and health status annually</li><li><b>Solid organ transplant recipients aged 19 through 64 years receiving immunosuppressive medications:</b> HD–LIV3 and allIV3 are acceptable options. No preference over other age–appropriate LIV3 or RIV3.</li><li><b>Age 65 years or older:</b> Any one of HD–LIV3, RIV3, or allIV3 is preferred. If none of these three vaccines is available, then any other age–appropriate influenza vaccine should be used.</li><li>For the 2024–25 season, see <a href="http://www.cdc.gov/mmwr/volumes/73/rr/rr7305a1.htm">www.cdc.gov/mmwr/volumes/73/rr/rr7305a1.htm</a></li><li>For the 2025–26 season, see the 2025–26 ACIP influenza vaccine recommendations.</li></ul> <p><b>Special situations</b></p> <ul style="list-style-type: none"><li><b>Close contacts (e.g., caregivers, healthcare workers) of severely immunosuppressed persons who require a protected environment:</b> should not receive LAIV3. If LAIV3 is given, they should avoid contact with/caring for such immunosuppressed persons for 7 days after vaccination.</li><li><b>Note:</b> Persons with an egg allergy can receive any influenza vaccine (egg-based or non–egg based) appropriate for age and health status.</li></ul> <p><b>Severe immunocompromising conditions:</b></p> <ul style="list-style-type: none"><li>MMR contraindicated</li><li><b>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:</b> 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</li><li><b>In mumps outbreak settings,</b> for information about additional doses of MMR (including 3rd dose of MMR), see <a href="http://www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm">www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm</a></li></ul>	<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>No evidence of immunity to measles, mumps, or rubella:</b> 1 dose</li><li><b>Evidence of immunity:</b> 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)</li></ul> <p><b>Special situations</b></p> <ul style="list-style-type: none"><li><b>Pregnancy with no evidence of immunity to rubella:</b> MMR contraindicated during pregnancy; after pregnancy (before discharge from health care facility): 1 dose</li><li><b>Nonpregnant persons of childbearing age with no evidence of immunity to rubella:</b> 1 dose</li><li><b>HIV infection with CD4 percentages <math>\geq 15\%</math> and CD4 count <math>\geq 200 \text{ cells/mm}^3</math> for at least 6 months and no evidence of immunity to measles, mumps, or rubella:</b> complete 2-dose series at least 4 weeks apart; MMR contraindicated for HIV infection with CD4 percentage <math>&lt; 15\%</math> or CD4 count <math>&lt; 200 \text{ cells/mm}^3</math></li></ul>

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## Notes

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

#### Measles, mumps, and rubella vaccination

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##### 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.

#### 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, or microbiologists routinely exposed to *Neisseria meningitidis*.
  - Bexsero or Trumenba (use same brand for all doses)
- Travel in countries with hyperendemic or epidemic meningococcal disease, or for microbiologists routinely exposed to *Neisseria meningitidis*: 1 dose primary series Menveo or MenQuadrif; 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 MenQuadrif

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](http://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)

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- \*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/hcp/admin/downloads/isd-job-aid-scdm-mening-b-shared-clinical-decision-making.pdf](http://www.cdc.gov/vaccines/hcp/admin/downloads/isd-job-aid-scdm-mening-b-shared-clinical-decision-making.pdf)

##### 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 persons. 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 [www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm](http://www.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.

## Notes

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

### Mpox vaccination

#### Special situations

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

#### Risk factors for mpox infection include:

- Persons who are gay or bisexual, and other MSM, transgender or nonbinary people who in the past 6 months have had:
  - 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 mpox 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 persons. Pregnant persons 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](http://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.

#### 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:
  - 1 dose PCV20 or 1 dose PCV21 at least 5 years after the last pneumococcal vaccine dose.

- 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/r7203a1.htm](http://www.cdc.gov/mmwr/volumes/72/rr/r7203a1.htm).

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

Pneumococcal vaccination - continued	Poliovirus vaccination	Respiratory syncytial virus vaccination
<p><b>PPSV23 not available:</b> 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.</p> <p>For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app which can be downloaded here: <a href="http://www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/app.html">www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/app.html</a>.</p> <p><b>Note:</b> 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.</p> <p><b>**Note:</b> 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.</p>	<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>Adults known or suspected to be unvaccinated or incompletely vaccinated:</b> 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.</li><li><b>Special situations</b></li><li><b>Adults at increased risk for exposure to poliovirus who completed primary series*:</b> may administer one lifetime IPV booster.</li></ul> <p>*<b>Note:</b> Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.</p> <p>For detailed information, see <a href="http://www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html">www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html</a></p>	<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>Pregnant persons of any age:</b><ul style="list-style-type: none"><li>- Pregnant at 32 weeks 0 days through 36 weeks and 6 days gestation from September through January in most of the continental United States*:<ul style="list-style-type: none"><li>1 dose <b>Abrysvo</b>. Administer RSV vaccine regardless of previous RSV infection.</li><li>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.</li></ul></li><li><b>All other pregnant persons:</b> RSV vaccine not recommended</li></ul></li><li><b>Subsequent pregnancies:</b> additional doses not recommended. No data are available to inform whether additional doses are needed in subsequent pregnancies. Infants born to pregnant persons who received RSV vaccine during a previous pregnancy should receive nirsevimab.</li></ul> <p><b>Note:</b> 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.</p> <p><b>Age 75 years or older</b></p> <ul style="list-style-type: none"><li><b>Unvaccinated:</b> 1 dose (Arexyv or Abrysvo or mResvia).</li><li>Additional doses not recommended</li><li><b>Previously vaccinated:</b> additional doses not recommended. No data are available to inform whether additional doses are needed.</li></ul> <p>WHITE SPACE INTENTIONALLY LEFT BLANK</p>

## Notes

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

#### Respiratory syncytial virus vaccination - continued

##### Special situations

###### • Age 60–74 years:

- Unvaccinated and at increased risk of severe RSV disease\*\*: 1 dose (Arexyv 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](http://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

#### 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](http://www.cdc.gov/mmwr/volumes/69/wr/mm6903a5.htm)

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## Notes

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

Varicella vaccination	Zoster vaccination
<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>No evidence of immunity to varicella:</b> 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.</li><li><b>Evidence of immunity:</b> U.S.–born before 1980 (except for pregnant persons 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.</li></ul> <p><b>Special situations</b></p> <ul style="list-style-type: none"><li><b>Pregnancy with no evidence of immunity to varicella:</b> VAR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose if previously received 1 dose varicella-containing 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.</li><li><b>Health care personnel with no evidence of immunity to varicella:</b> 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.</li><li><b>HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm<sup>3</sup> with no evidence of immunity:</b> Vaccination may be considered (2 doses 3 months apart); VAR contraindicated for HIV infection with CD4 percentage &lt;15% or CD4 count &lt;200 cells/mm<sup>3</sup>.</li><li><b>Severe immunocompromising conditions:</b> VAR contraindicated</li></ul>	<p><b>Routine vaccination</b></p> <ul style="list-style-type: none"><li><b>Age 50 years or older*</b>: 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.</li></ul> <p><b>*Note:</b> 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.</p> <p><b>Special situations</b></p> <ul style="list-style-type: none"><li><b>Pregnancy:</b> There is currently no ACIP recommendation for RZV use in pregnancy. Consider delaying RZV until after pregnancy.</li><li><b>Immunocompromising conditions (including persons with HIV regardless of CD4 count)**:</b> 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 <a href="http://www.cdc.gov/shingles/hcp/vaccine-considerations/immunocompromised-adults.html">www.cdc.gov/shingles/hcp/vaccine-considerations/immunocompromised-adults.html</a></li><li><b>**Note:</b> 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: <a href="http://www.cdc.gov/mmwr/volumes/71/wr/mm7103a2.htm">www.cdc.gov/mmwr/volumes/71/wr/mm7103a2.htm</a></li></ul>

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# Appendix

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

### 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 <sup>1</sup>	Precautions <sup>2</sup>
COVID–19 mRNA vaccines [Pfizer–BioNTech, Moderna] Novavax	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID–19 vaccine <sup>3</sup>	<ul style="list-style-type: none"><li>• Diagnosed non–severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID–19 vaccine<sup>3</sup>; or non–severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID–19 vaccine</li><li>• Myocarditis or pericarditis within 3 weeks after a dose of any COVID–19 vaccine</li><li>• Multisystem inflammatory syndrome in children (MIS–C) or multisystem inflammatory syndrome in adults (MIS–A)</li><li>• Moderate or severe acute illness, with or without fever</li></ul>
COVID–19 protein subunit vaccine Novavax	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID–19 vaccine <sup>3</sup>	<ul style="list-style-type: none"><li>• Diagnosed non–severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID–19 vaccine<sup>3</sup>; or non–severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax COVID–19 vaccine</li><li>• Myocarditis or pericarditis within 3 weeks after a dose of any COVID–19 vaccine</li><li>• Multisystem inflammatory syndrome in children (MIS–C) or multisystem inflammatory syndrome in adults (MIS–A)</li><li>• Moderate or severe acute illness, with or without fever</li></ul>
Influenza, egg-based, inactivated injectable (IIV3) Influenza, cell culture–based inactivated injectable (ccIIV3) [Flucelvax]	<ul style="list-style-type: none"><li>• 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)</li><li>• Severe allergic reaction (e.g., anaphylaxis) to any vaccine component<sup>4</sup> (excluding egg)</li><li>• Severe allergic reaction (e.g., anaphylaxis) to any ccIIV of any valency, or to any component<sup>4</sup> of ccIIV3</li></ul>	<ul style="list-style-type: none"><li>• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine</li><li>• Moderate or severe acute illness with or without fever</li><li>• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine</li><li>• 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.</li><li>• Moderate or severe acute illness with or without fever</li><li>• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine</li><li>• 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.</li><li>• Moderate or severe acute illness with or without fever</li></ul>
Influenza, recombinant injectable (RIV3) [Flubiofab]	• Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component <sup>4</sup> of RIV3	<ul style="list-style-type: none"><li>• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine</li><li>• Asthma in persons aged 5 years or older</li><li>• 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))</li><li>• Moderate or severe acute illness with or without fever</li></ul>
Influenza, live attenuated (LAIV3) [Flumist]	<ul style="list-style-type: none"><li>• 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)</li><li>• Severe allergic reaction (e.g., anaphylaxis) to any vaccine component<sup>4</sup> (excluding egg)</li><li>• Anatomic or functional asplenia</li><li>• Immunocompromised due to any cause including, but not limited to, medications and HIV infection</li><li>• Close contacts or caregivers of severely immunosuppressed persons who require a protected environment</li><li>• Pregnancy</li><li>• Cochlear implant</li><li>• Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear, or any other cranial CSF leak</li><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine</li><li>• 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))</li><li>• Moderate or severe acute illness with or without fever</li></ul>

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. See package inserts and FDA EUA fact sheets for a full list of vaccine ingredients. mRNA COVID–19 vaccines contain polyethylene glycol (PEG).

4. 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.

# Appendix

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Vaccine	Contraindicated or Not Recommended <sup>1</sup>	Precautions <sup>2</sup>
<i>Haemophilus influenzae</i> type b (Hib)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup> including neomycin</li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup> including yeast</li> <li>Pregnancy: PreHeVbrio is not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated<sup>4</sup></li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup> including neomycin and yeast</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Hepatitis A (HepA)		
Hepatitis B (HepB)	<ul style="list-style-type: none"> <li>Pregnancy: PreHeVbrio is not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated<sup>4</sup></li> </ul>	
Hepatitis A–Hepatitis B vaccine (HepA–HepB) [Twinrix]		
Human papillomavirus (HPV)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>Pregnancy: HPV vaccination not recommended</li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>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)</li> <li>Pregnancy</li> <li>Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Recent (<math>\leq</math>11 months) receipt of antibody-containing blood product (specific interval depends on product)           <ul style="list-style-type: none"> <li>History of thrombocytopenia or thrombocytopenic purpura</li> <li>Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing</li> </ul> </li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Measles, mumps, rubella (MMR)		
Meningococcal ACWY (MenACWY) (MenACWY-CRM) [Menveo] (MenACWY-TT) [MenQuadfi]	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to any diphtheria toxoid- or CRM197-containing vaccine</li> <li>For MenACWY-CRM only: severe allergic reaction to any diphtheria toxoid- or CRM197-containing vaccine</li> <li>For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine</li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Pregnancy</li> <li>For MenB-4C only: Latex sensitivity</li> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Meningococcal B (MenB) MenB-FHbp [Trumenba]		
Meningococcal ABCWY (MenACWY-TT/MenB-FHbp) [Penbravy]	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a tetanus toxoid-containing vaccine</li> <li>Severe allergic reaction to a tetanus toxoid-containing vaccine</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Mpox (Lynneos)		
Pneumococcal conjugate (PCV15, PCV20, PCV21)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or to its vaccine component<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Pneumococcal polysaccharide (PPSV23)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Pregnancy</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Poliovirus vaccine, inactivated (IPV)		
Respiratory syncytial virus vaccine (RSV)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) to a vaccine component</li> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Moderate or severe acute illness with or without fever</li> </ul>
Tetanus, diphtheria, and acellular pertussis (Tdap)	<ul style="list-style-type: none"> <li>For Tdap only: Incephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap</li> </ul>	<ul style="list-style-type: none"> <li>Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid-containing vaccine</li> <li>History of Atthus-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</li> <li>Moderate or severe acute illness with or without fever</li> <li>For Tdap only: Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized</li> </ul>
Tetanus, diphtheria, and cellular pertussis (Td)		
Varicella (VAR)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> <li>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)</li> <li>Pregnancy</li> <li>Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent</li> </ul>	<ul style="list-style-type: none"> <li>Recent (<math>\leq</math>11 months) receipt of antibody-containing blood product (specific interval depends on product)           <ul style="list-style-type: none"> <li>Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination)</li> <li>Use of aspirin or aspirin-containing products</li> </ul> </li> <li>Moderate or severe acute illness with or without fever</li> <li>Current episode of herpes zoster</li> </ul>
Zoster recombinant vaccine (RZV)	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> </ul>

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.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](http://www.cdc.gov/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. [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](http://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](http://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.prehenvbrio.com/](http://www.prehenvbrio.com/) safety.

## Addendum

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

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. The following recommendations have been adopted by the CDC Director and are now official. Links are provided if these recommendations have been published in *Morbidity and Mortality Weekly Report (MMWR)*.

Vaccines	Recommendations	Effective Date of Recommendation*
No new vaccines or vaccine recommendations to report		

\*The effective date is the date when the CDC director adopted the recommendation and when the ACIP recommendation became official.