Huron County Public Health

PUBLIC HEALTH DESK REFERENCE

09/22/2023

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Huron County Public Health

CONTACT INFORMATION

MISSION STATEMENT
To achieve and sustain healthy people and healthy communities throughout Huron County by providing public health services which promote health and prevent disease.

VISION STATEMENT
Working in collaboration with our partnering organizations and communities, Huron County will become leaders and innovators in achieving and optimal health status for its citizens. In this quest, HCPH will apply best practices and demonstrate operational excellence while addressing chronic disease prevention, environmental safety, behavioral education, and preparedness.

FOR PUBLIC HEALTH EMERGENCIES OR TO REPORT A COMMUNICABLE DISEASE:

DURING BUSINESS HOURS
Monday: 9:00 a.m. to 4:00 p.m.
Tuesday through Friday: 8:00 a.m. to 4:00 p.m.
Call (419) 668-1652. Dial Ext. 269 to reach a staff member.
Explain the emergency and you will be transferred to the appropriate staff.

HEALTH COMMISSIONER
Timothy Hollinger, MPH
Phone: (419) 668-1652 ext. 228
Email: thollinger@huroncohealth.com

DIRECTOR OF COMMUNITY PROGRAMS
Nicole Marks, MPH
Phone: (419) 668-1652 ext. 225
Email: nmarks@huroncohealth.com

DIRECTOR OF NURSING
Chris Cherry, BSN, RN
Phone: (419) 668-1652 ext. 230
Email: ccherry@huroncohealth.com

DIRECTOR OF ENVIRONMENTAL HEALTH
Eric Cherry, REHS
Phone: (419) 668-1652 ext. 240
Email: echerry@huroncohealth.com

DIRECTOR OF ADMINISTRATIVE SERVICES
Bethany Bracken
Phone: (419) 668-1652 ext. 257
Email: bbracken@huroncohealth.com

GENERAL CONTACT INFORMATION
Phone: (419) 668-1652
Address: 28 Executive Dr.
Norwalk, Ohio 44857
Medical Fax: (419) 668-5423
Environmental Fax: (419) 660-0129
Community Health Fax: (419) 660 1652
Email: information@huroncohealth.com

AFTER BUSINESS HOURS
To report a public health emergency after hours, please call Huron County Public Health at 800-734-4866.

Huron County Public Health

DIRECTORY OF SERVICES

Animal Bite Reporting	Ext: 239
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MAIN OFFICE

28 Executive Drive
Norwalk, OH 44857
Phone: (419) 668-1652
Fax: (419) 668-5423
information@huroncohealth.com
www.HuronCoHealth.com
Facebook & Twitter: @HuronCoHealth

BELLEVUE OFFICE

3000 Seneca Industrial Parkway
Bellevue, OH 44811

NEW LONDON NURSING SERVICES

4625 OH-162
New London, OH 44851

COMMUNICABLE DISEASE REPORTING

Know Your ABCs: A Quick Guide to Reportable Infectious Diseases in Ohio

From the Ohio Administrative Code Chapter 3701-3; Effective August 1, 2019

Class A:

Diseases of major public health concern because of the severity of disease or potential for epidemic spread – report immediately via telephone upon recognition that a case, a suspected case, or a positive laboratory result exists.

- Anthrax
- Botulism, foodborne
- Cholera
- Diphtheria
- Influenza A – novel virus infection
- Measles
- Meningococcal disease
- Middle East Respiratory Syndrome (MERS)
- Plague
- Rabies, human
- Rubella (not congenital)
- Severe acute respiratory syndrome (SARS)
- Smallpox
- Tularemia
- Viral hemorrhagic fever (VHF), including Ebola virus disease, Lassa fever, Marburg hemorrhagic fever, and Crimean-Congo hemorrhagic fever

Any unexpected pattern of cases, suspected cases, deaths or increased incidence of any other disease of major public health concern, because of the severity of disease or potential for epidemic spread, which may indicate a newly recognized infectious agent, outbreak, epidemic, related public health hazard or act of bioterrorism.

Class B:

Disease of public health concern needing timely response because of potential for epidemic spread – report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.

- Amebiasis
- Arboviral neuroinvasive and non-neuroinvasive disease:
  - Chikungunya virus infection
  - Eastern equine encephalitis virus disease
  - LaCrosse virus disease (other California serogroup virus disease)
  - Powassan virus disease
  - St. Louis encephalitis virus disease
  - West Nile virus infection
  - Western equine encephalitis virus disease
  - Yellow fever
  - Zika virus infection
  - Other arthropod-borne diseases
- Babesiosis
- Botulism
  - infant
  - wound
- Brucellosis
- Campylobacteriosis
- *Candida auris*
- Carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE)
  - CP-CRE *Enterobacter* spp.
  - CP-CRE *Escherichia coli*
  - CP-CRE *Klebsiella* spp.
  - CP-CRE other
- Chancroid
- *Chlamydia trachomatis* infections
- Coccidioidomycosis
- Creutzfeldt-Jakob disease (CJD)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- *E. coli* O157:H7 and Shiga toxin-producing *E. coli* (STEC)
- Ehrlichiosis/anaplasmosis
- Giardiasis
- Gonorrhea *(Neisseria gonorrhoeae)*
- *Haemophilus influenzae* (invasive disease)
- Hantavirus
- Hemolytic uremic syndrome (HUS)
- Hepatitis A
- Hepatitis B (non-perinatal)
- Hepatitis B (perinatal)
- Hepatitis C (non-perinatal)
- Hepatitis C (perinatal)
- Hepatitis D (delta hepatitis)
- Hepatitis E
- Influenza-associated hospitalization
- Influenza-associated pediatric mortality
- Legionnaires' disease
- Leprosy (Hansen disease)
- Leptospirosis
- Listeriosis
- Lyme disease
- Malaria
- Meningitis:
  - Aseptic (viral)
  - Bacterial
- Mumps
- Pertussis
- Poliomyelitis (including vaccine-associated cases)
- Psittacosis
- Q fever
- Rubella (congenital)
- *Salmonella* Paratyphi infection
- *Salmonella* Typhi infection (typhoid fever)
- Salmonellosis
- Shigellosis
- Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever (RMSF)
- *Staphylococcus aureus*, with resistance or intermediate resistance to vancomycin (VRSA, VISA)
- Streptococcal disease, group A, invasive (IGAS)
- Streptococcal disease, group B, in newborn
- Streptococcal toxic shock syndrome (STSS)
- *Streptococcus pneumoniae*, invasive disease (ISP)
- Syphilis
- Tetanus
- Toxic shock syndrome (TSS)
- Trichinellosis
- Tuberculosis (TB), including multi-drug resistant tuberculosis (MDR-TB)
- Varicella
- Vibriosis
- Yersiniosis

Class C:

Report an outbreak, unusual incident or epidemic of other diseases (e.g. histoplasmosis, pediculosis, scabies, staphylococcal infections) by the end of the next business day.

Outbreaks:

- Community
- Foodborne
- Healthcare-associated
- Institutional
- Waterborne
- Zoonotic

NOTE:

Cases of AIDS (acquired immune deficiency syndrome), AIDS-related conditions, HIV (human immunodeficiency virus) infection, perinatal exposure to HIV, all CD4 T-lymphocyte counts and all tests used to diagnose HIV must be reported on forms and in a manner prescribed by the Director.

Ohio Department of Health

Know Your ABCs (Alphabetical Order)

Effective August 1, 2019

Name	Class
Amebiasis	B
Anthrax	A
Arboviral neuroinvasive and non-neuroinvasive disease	B
Babesiosis	B
Botulism, foodborne	A
Botulism, infant	B
Botulism, wound	B
Brucellosis	B
Campylobacteriosis	B
Candida auris	B
Carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE)	B
Chancroid	B
Chlamydia trachomatis infections	B
Chikungunya	B
Cholera	A
Coccidioidomycosis	B
Creutzfeldt-Jakob disease (CJD)	B
Cryptosporidiosis	B
Cyclosporiasis	B
Dengue	B
Diphtheria	A
E. coli O157:H7 and Shiga toxin-producing *E. coli* (STEC)	B
Eastern equine encephalitis virus disease	B
Ehrlichiosis/Anaplasmosis	B
Giardiasis	B
Gonorrhea (*Neisseria gonorrhoeae*)	B
Haemophilus influenzae (invasive disease)	B
Hantavirus	B
Hemolytic uremic syndrome (HUS)	B
Hepatitis A	B
Hepatitis B (non-perinatal)	B
Hepatitis B (perinatal)	B
Hepatitis C (non-perinatal)	B
Hepatitis C (perinatal)	B
Hepatitis D (delta hepatitis)	B
Hepatitis E	B
Influenza A – novel virus	A
Influenza-associated hospitalization	B
Influenza-associated pediatric mortality	B
LaCrosse virus disease (other California serogroup virus disease)	B
Legionnaires' disease	B
Leprosy (Hansen disease)	B
Leptospirosis	B
Listeriosis	B
Lyme disease	B
Malaria	B

Name	Class
Measles	A
Meningitis, aseptic (viral)	B
Meningitis, bacterial	B
Meningococcal disease	A
MERS	A
Mumps	B
Other arthropod-borne diseases	B
Outbreaks: community, foodborne, healthcare-associated, institutional, waterborne, zoonotic	C
Pertussis	B
Plague	A
Poliomyelitis (including vaccine-associated cases)	B
Powassan virus disease	B
Psittacosis	B
Q fever	B
Rabies, human	A
Rubella (congenital)	B
Rubella (not congenital)	A
Salmonella Paratyphi infection	B
Salmonella Typhi infection (typhoid fever)	B
Salmonellosis	B
Severe acute respiratory syndrome (SARS)	A
Shigellosis	B
Smallpox	A
Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever (RMSF)	B
St. Louis encephalitis virus disease	B
Staphylococcus aureus, with resistance or intermediate resistance to vancomycin (VRSA, VISA)	B
Streptococcal disease, group A, invasive (IGAS)	B
Streptococcal disease, group B, in newborn	B
Streptococcal toxic shock syndrome (STSS)	B
Streptococcus pneumoniae, invasive disease (ISP)	B
Syphilis	B
Tetanus	B
Toxic shock syndrome	B
Trichinellosis	B
Tuberculosis (TB), including multi-drug resistant tuberculosis (MDR-TB)	B
Tularemia	A
Varicella	B
Vibriosis	B
Viral hemorrhagic fever (VHF)	A
West Nile virus infection	B
Western equine encephalitis virus disease	B
Yellow fever	B
Yersiniosis	B
Zika virus infection	B

Huron County Public Health

ADDITIONAL COMMUNICABLE DISEASE REPORTING REQUIREMENTS:

COVID-19 (Class A Reportable Disease with Special Reporting Requirements)

Per the Ohio Department of Health's Director's Journal Entry dated April 4, 2022, Confirmed and Probable cases of COVID-19 be reported within twenty-four (24) hours to the local health district in which the person resides (or the local health district wherein the person is being medically evaluated if the person's residence is unknown or not in Ohio). Additional details can be found in the Director's Journal Entry here: 2nd-Amended-Reporting-Requirements-COVID-April22.pdf (ohio.gov).

Monkeypox (Class B Reportable Disease)

Per the Ohio Department of Health's Director's Journal Entry dated July 27, 2022, health care providers, as defined in R.C. 3701.23(A), or any individual having knowledge of a person suffering from MPV, report the infection or suspected infection to the health district in which the patient resides (or the health district wherein the infection or suspected infection is being medically evaluated if the patient's residence is unknown or not in Ohio) by the end of the next business day pursuant to Ohio Adm. Code 3701-3-05(B). Such health district shall report infections or suspected infections to the Ohio Department of Health pursuant to Ohio R.C. 3701.23 and Ohio Adm. Code 3701-3-06. Additional details can be found in the Director's Journal Entry here: Directors+Journal+07-27-22+Monkeypox+CERTIF.pdf (ohio.gov).

Ohio Department of Health

Ohio Confidential Reportable Disease

Use this form to submit reportable infectious diseases to your local health department (**Do not** use this form to report HIV/AIDS)

Disease reported			**ODRS number**
Patient's last name	First name	Middle name (or initial and/or suffix)	Medical record number
Address *(number and street)*			County
City	State	ZIP	Patient expired? ☐ Yes ☐ No ☐ Unknown
Home telephone ( )	Work telephone ( )		Alternate number ( )
Birthdate *(month/day/year)* / /	Age	Sex ☐ Male ☐ Female	Pregnant ☐ Yes ☐ No ☐ Unknown / Delivery date / /
Race *(check all that apply)* ☐ American Indian or Alaskan Native ☐ Asian ☐ African American ☐ Unknown ☐ Native Hawaiian or Pacific Islander ☐ White ☐ Other _____			Ethnicity *(check one)* ☐ Hispanic ☐ Unknown ☐ Non-Hispanic / Was patient contacted? ☐ Yes ☐ Unknown ☐ No
Sensitive occupation? *(Check all that apply)* ☐ Food handler ☐ Direct patient-care ☐ Child care attendee/staff ☐ Long-term care resident/staff ☐ Not applicable	Name of facility		
	Address of facility		

Parent, guardian, or alternate contact name	Phone
Health care provider name	Phone
Health care provider address	
Health care facility name	Phone
Health care facility address	
Submitted by *(contact name, facility)*	Phone

Date of report / /	Status ☐ Laboratory confirmed ☐ Clinically diagnosed *(list symptoms)*_____	Date of result / /
Date of onset / /	Laboratory name	Phone ( )
Date of diagnosis / /	Laboratory address	
Hospital admission / /	Date of specimen collection / /	Reason for test ☐ Dx ☐ Prenatal ☐ Repeat pos / Specific type of test *(e.g. smear, culture, ELISA)*
Hospital discharge / /	Specimen site/type ☐ Blood ☐ Stool ☐ CSF ☐ Urine ☐ Cervix ☐ Urethra ☐ Sputum ☐ Other _____	
Date of death / /	Treatment ☐ Treated ☐ Untreated: ○ Will treat ○ Unable to contact ○ Refused treatment ○ Referred to: _____	
	Date treatment initiated / /	Detail drugs/dose/route

Remarks

Drug Allergies?

Method of Detection?

Please submit to:

Huron County Public Health Attn:Kristian McCallen
28 Executive Drive
Norwalk, Ohio 44857
Phone: 419-668-1652 ext. 269
Fax: 419-668-0152
Email: kmccallen@huroncohealth.com

Varicella (Chicken Pox) Report Form

Huron County Public Health– Epidemiology and Surveillance

Demographic Information

Child's Name	Parent's Name	
Address		
City	County	Zip
Phone	Date of Birth / Age	

Sex: □ Male □ Female	Race: □ White □ Black □ Asian/PI □ Am Indian □ Other	Ethnicity: □ Hispanic □ Non-Hispanic

Clinical Information

Rash: □ Yes □ No □ Unknown
Onset Date: ____/____/____

Location of rash_____
Fever: □ Yes □ No □ Unknown
1st date child absent: ____/____/____
(due to chickenpox)

Received Varicella Vaccine: (check appropriate box)
□ Yes □ No □ Unknown

If yes, date(s) of vaccination:
Varicella (VZV) dose 1:____/____/____

Varicella (VZV) dose 2:____/____/____

Severity of Varicella: (check appropriate box)
□ < 50 lesions (Severity I) □ 50 – 500 lesions (Severity II) □ > 500 lesions (Severity III)

Hospitalized: (check appropriate box)
□ Yes □ No □ Unknown

Outcome: (check appropriate box)
□ Alive □ Dead □ Unknown

Diagnosed by: (check appropriate box)
□ Physician/Nurse □ School □ Parent □ Self □ Other_____

Reported date: ____/____/____

Report Source:

Name:_____ Agency/Site_____

(check appropriate box)
□ School □ Pre-school/Childcare □ Physician □ Lab
Phone number (should further information be needed): _____

Reporting Information

When you have cases of chicken pox, please fax reports at the end of each week to:

419-668-0152

Questions? Please contact Kristian McCallen at 419-668-1652 ext. 269 or kmccallen@huroncohealth.com

Ohio Department of Health

Influenza-Associated Hospitalization Confidential Case Report

Person demographics

ODRS ID number			
Last name	First name	Middle name	
Street		County	
City	State	ZIP	
Date of birth / /	Age	Phone number ( )	
Sex ☐ Male ☐ Female	Race (Check all that apply) ☐ White ☐ Asian ☐ Black ☐ Hawaiian Native or Pacific Islander ☐ American Indian or Alaskan Native ☐ Other ☐ Unknown	Ethnicity ☐ Hispanic or Latino ☐ Non Hispanic or Non Latino ☐ Unknown	
Pregnant? ☐ Yes ☐ No ☐ Unknown	Deceased? ☐ Yes ☐ No ☐ Unknown	Date of death / /	

Laboratory information

Test type	Result	Specimen collection date
☐ Commercial rapid diagnostic test	☐ Influenza A ☐ Influenza B ☐ Negative ☐ Influenza A/B (Not distinguished)	/ /
☐ Viral culture	☐ Influenza A (Subtyping not done) ☐ Negative ☐ Influenza B ☐ Influenza A (Unable to subtype) ☐ Influenza A Seasonal (H1) ☐ Influenza A (H3) ☐ Influenza A (2009) H1N1	/ /
☐ Direct fluorescent antibody (DFA)	☐ Influenza A ☐ Influenza B ☐ Negative ☐ Influenza A/B	/ /
☐ Indirect fluorescent antibody (IFA)	☐ Influenza A ☐ Influenza B ☐ Negative ☐ Influenza A/B	/ /
☐ Enzyme immunoassay (EIA)	☐ Influenza A (Subtyping not done) ☐ Negative ☐ Influenza B ☐ Influenza A (Unable to subtype) ☐ Influenza A Seasonal (H1) ☐ Influenza A (H3) ☐ Influenza A (2009) H1N1	/ /
☐ RT-PCR	☐ Influenza A (Subtyping not done) ☐ Negative ☐ Influenza B ☐ Influenza A (Unable to subtype) ☐ Influenza A Seasonal (H1) ☐ Influenza A (H3) ☐ Influenza A (2009) H1N1	/ /
☐ Rapid Molecular Assay	☐ Influenza A ☐ Influenza B ☐ Negative	/ /

Date of illness onset / /	Clinician name	Clinician phone # ( )
Was patient hospitalized? ☐ Yes ☐ No ☐ Unknown	Hospital	Date of admission / /
Date of discharge / /	Medical record number	Does patient have neurological symptoms? ☐ Yes ☐ No ☐ Unknown	Was the patient in the ICU? ☐ Yes ☐ No ☐ Unknown

Culture confirmation of *invasive* bacterial pathogens

Was an invasive bacterial infection confirmed by culturing an organism from a specimen collected from a normally sterile site (e.g., blood, cerebrospinal fluid [CSF], tissue, or pleural fluid)?

☐ Yes ☐No

☐ Streptococcus pneumoniae

☐ *Haemophilus influenzae* type b

☐ *Haemophilus influenzae* not-type b

☐ Group A streptococcus

☐ *Staphylococcus aureus*, methicillin **sensitive**

☐ *Staphylococcus aureus,* methicillin **resistant (MRSA**)

☐ *Staphylococcus aureus*, **sensitivity not done**

☐ *Neisseria meningitidis* (serogroup, if known) _____

☐ Other invasive bacteria _____

Epidemiology information

Did patient travel out of the country during the 10 days prior to illness? ☐ Yes ☐ No ☐ Unknown

If yes, then list where and when:

Is the patient a healthcare worker with direct patient contact? ☐ Yes ☐ No ☐ Unknown

Does the patient have a heart, kidney, or metabolic disorder? ☐ Yes ☐ No ☐ Unknown

Does the patient have a chronic respiratory disorder? ☐ Yes ☐ No ☐ Unknown

Is the patient immunosuppressed? ☐ Yes ☐ No ☐ Unknown

Vaccination information

Did patient receive an influenza vaccine during the current influenza season? ☐ Yes ☐ No ☐ Unknown

If yes, number of doses:	Date of vaccination: / /	Date of vaccination: / /	Date of vaccination: / /

Huron County Public Health

Kristian McCallen, MPH, Epidemiologist
28 Executive Drive, Norwalk, OH 44857
Ph: (419) 668-1652
Fax: (419) 668-0152
Email: kmccallen@huroncohealth.com

INFLUENZA-LIKE-ILLNESS TRACKING REPORT - PHYSICIANS

To better track flu activity in Huron County, we are asking that all hospitals complete and submit this form weekly. Please track the number of influenza-related interactions requested below throughout the week. Fax this completed form to Melissa Caranfa at 419-668-0152 or email to kmccallen@huroncohealth.com no later than Monday at 12:00 p.m. (The reporting period is 12:00 a.m. EST Sunday through 11:59 p.m. EST on Saturday). The data collected will be entered and then reported back to you, our medical partners. Thank you! Electronically enter at https://www.surveymonkey.com/r/9H33S8F .

FOR THE WEEK: SUNDAY, / / TO SATURDAY, / /

NAME OF HOSPITAL: _____ CITY: _____

PHONE: ( ) - CONTACT PERSON: _____

Please report the following…	Count **(Age 0-4)**	**Count (Age 5-18)**	**Count (Age 19-24)**	**Count (Age 25-49)**	**Count (Age 50-64)**	**Count (Age 65+)**
Influenza-Like-Illness (ILI): Number of patients seen for or callin in with ILI. CDC defines ILI as an individual with symptoms: ➢ Fever ≥100°F, AND ➢ Cough, AND/OR ➢ Sore throat						
Rapid Flu Tests Completed in Office: Number of rapid flu tests conducted in your office.						
Rapid Test Positives for Flu A: Number of rapid flu tests that came back positive for influenza A.						
Rapid Test Positives for Flu B: Number of rapid flu tests that came back positive for influenza B.						
Rapid Test Negatives: Number of rapid flu tests that came back negative for influenza A & B.						

Novel influenza A is a Class A reportable disease. To report novel influenza A cases, please call (419) 668-1652 Monday through Friday 8:00 a.m. to 4:30 p.m. or (800) 734-4866 after hours. For more information, call Kristian McCallen, Epidemiologist, at 419-668-1652 ext: 259 or Chris Cherry, Director of Nursing at ext. 230.

VAERS Vaccine Adverse Event Reporting System
www.vaers.hhs.gov

Adverse events are possible reactions or problems that occur during or after vaccination. Items **2, 3, 4, 5, 6, 17, 18** and **21** are **ESSENTIAL** and should be completed. Patient identity is kept confidential. Instructions are provided on the last two pages.

INFORMATION ABOUT THE PATIENT WHO RECEIVED THE VACCINE (Use **Continuation Page** if needed)

1. Patient name: (first) _____ (last) _____
Street address: _____
City: _____ State: _____ County: _____
ZIP code: _____ Phone: ( ) _____ Email: _____

2. Date of birth: (mm/dd/yyyy) _____ **3.** Sex: ☐ Male ☐ Female ☐ Unknown

4. Date and time of vaccination: (mm/dd/yyyy) _____ Time: hh:mm ☐AM ☐PM

5. Date and time adverse event started: (mm/dd/yyyy) _____ Time: hh:mm ☐AM ☐PM

6. Age at vaccination: ___ Years ___ Months 7. Today's date: (mm/dd/yyyy) _____

8. Pregnant at time of vaccination?: ☐ Yes ☐ No ☐ Unknown
(If yes, describe the event, any pregnancy complications, and estimated due date if known in item 18)

9. Prescriptions, over-the-counter medications, dietary supplements, or herbal remedies being taken at the time of vaccination:

10. Allergies to medications, food, or other products:

11. Other illnesses at the time of vaccination and up to one month prior:

12. Chronic or long-standing health conditions:

INFORMATION ABOUT THE PERSON COMPLETING THIS FORM

13. Form completed by: (name) _____

Relation to patient: ☐ Healthcare professional/staff ☐ Patient (yourself) ☐ Parent/guardian/caregiver ☐ Other: _____

Street address: _____ ☐ Check if same as item 1
City: _____ State: _____ ZIP code: _____
Phone: ( ) _____ Email: _____

14. Best doctor/healthcare professional to contact about the adverse event: Name: _____ Phone: ( ) _____ Ext: _____

INFORMATION ABOUT THE FACILITY WHERE VACCINE WAS GIVEN

15. Facility/clinic name: _____
Fax: ( ) _____
Street address: ☐ Check if same as item 13
_____
_____
City: _____
State: _____ ZIP code: _____
Phone: ( ) _____

16. Type of facility: (Check one)
☐ Doctor's office, urgent care, or hospital
☐ Pharmacy or store
☐ Workplace clinic
☐ Public health clinic
☐ Nursing home or senior living facility
☐ School or student health clinic
☐ Other: _____
☐ Unknown

WHICH VACCINES WERE GIVEN? WHAT HAPPENED TO THE PATIENT?

17. Enter all vaccines given on the date listed in item 4: (Route is HOW vaccine was given, Body site is WHERE vaccine was given) Use **Continuation Page** if needed

Vaccine (type and brand name)	Manufacturer	Lot number	Route	Body site	Dose number in series
select			select	select	select
select			select	select	select
select			select	select	select
select			select	select	select

18. Describe the adverse event(s), treatment, and outcome(s), if any: (symptoms, signs, time course, etc.)
Use **Continuation Page** if needed

19. Medical tests and laboratory results related to the adverse event(s): (include dates)
Use **Continuation Page** if needed

20. Has the patient recovered from the adverse event(s)?: ☐ Yes ☐ No ☐ Unknown

21. Result or outcome of adverse event(s): (Check all that apply)
☐ Doctor or other healthcare professional office/clinic visit
☐ Emergency room/department or urgent care
☐ Hospitalization: Number of days (if known) _____
Hospital name: _____
City: _____ State: _____
☐ Prolongation of existing hospitalization (vaccine received during existing hospitalization)
☐ Life threatening illness (immediate risk of death from the event)
☐ Disability or permanent damage
☐ Patient died – Date of death: (mm/dd/yyyy) _____
☐ Congenital anomaly or birth defect
☐ None of the above

ADDITIONAL INFORMATION

22. Any other vaccines received within one month prior to the date listed in item 4: Use **Continuation Page** if needed

Vaccine (type and brand name)	Manufacturer	Lot number	Route	Body site	Dose number in series	Date Given
select			select	select	select	
select			select	select	select	

23. Has the patient ever had an adverse event following any previous vaccine?: (If yes, describe adverse event, patient age at vaccination, vaccination dates, vaccine type, and brand name)
☐ Yes _____ ☐ No ☐ Unknown

24. Patient's race: (Check all that apply) ☐ American Indian or Alaska Native ☐ Asian ☐ Black or African American ☐ Native Hawaiian or Other Pacific Islander ☐ White ☐ Unknown ☐ Other: _____

25. Patient's ethnicity: ☐ Hispanic or Latino ☐ Not Hispanic or Latino ☐ Unknown

26. Immuniz. proj. report number: (Health Dept use only) _____

COMPLETE ONLY FOR U.S. MILITARY/DEPARTMENT OF DEFENSE (DoD) RELATED REPORTS

27. Status at vaccination: ☐ Active duty ☐ Reserve ☐ National Guard ☐ Beneficiary ☐ Other: _____

28. Vaccinated at Military/DoD site: ☐ Yes ☐ No

SAVE

VAERS

CONTINUATION PAGE (Use only if you need more space from the front page)

17. Enter all vaccines given on the date listed in item 4 (continued):					Dose number in series
Vaccine (type and brand name)	Manufacturer	Lot number	Route	Body site	
select			select	select	select
select			select	select	select
select			select	select	select
select			select	select	select

22. Any other vaccines received within one month prior to the date listed in item 4 (continued):					Dose number in series	Date Given
Vaccine (type and brand name)	Manufacturer	Lot number	Route	Body site		
select			select	select	select	
select			select	select	select	
select			select	select	select	
select			select	select	select	
select			select	select	select	
select			select	select	select	

Use the space below to provide any additional information (indicate item number):

SAVE

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COMPLETING THE VACCINE ADVERSE EVENT REPORTING SYSTEM (VAERS) FORM

GENERAL INSTRUCTIONS

- Submit this form electronically using the Internet. For instructions, visit www.vaers.hhs.gov/uploadfile/.
- If you are unable to submit this form electronically, you may fax it to VAERS at 1-877-721-0366.
- If you need additional help submitting a report you may call the VAERS toll-free information line at 1-800-822-7967, or send an email to info@vaers.org.
- Fill out the VAERS form as completely as possible and use the **Continuation Page** if needed. Use a separate VAERS form for each individual patient.
- If you do not know exact numbers, dates, or times, please provide your best guess. You may leave these spaces blank if you are not comfortable guessing.
- You can get specific information on the vaccine and vaccine lot number by contacting the facility or clinic where the vaccine was administered.
- Please report all significant adverse events that occur after vaccination of adults and children, even if you are not sure whether the vaccine caused the adverse event.
- Healthcare professionals should refer to the VAERS Table of Reportable Events at www.vaers.hhs.gov/reportable.html for the list of adverse events that must be reported by law (42 USC 300aa-25).
- Healthcare professionals treating a patient for a suspected vaccine adverse event may need to contact the person who administered the vaccine in order to exchange information and decide how best to complete and submit the VAERS form.

SPECIFIC INSTRUCTIONS

Items 2, 3, 4, 5, 6, 17, 18 and 21 are **ESSENTIAL** and should be completed.

- **Items 4 and 5**: Provide dates and times as specifically as you can and enter as much information as possible (e.g., enter the month and year even if you don't know the day). If you do not know the exact time, but know it was in the morning ("AM") or afternoon or evening ("PM"), please provide that information.
- **Item 6**: If you fill in the form by hand, provide age in years. If a child is less than 1 year old, provide months of age. If a child is more than 1 year old but less than 2 years old, provide year and months (e.g., 1 year and 6 months). If a child is less than 1 month of age when vaccinated (e.g., a birth dose of hepatitis B vaccine) then answer 0 years and 0 months, but be sure to include the patient's date of birth (item 2) and date and time of vaccination (item 4).
- **Item 8:** If the patient who received the vaccine was pregnant at time of vaccination, select "Yes" and describe the event, any pregnancy complications, and estimated due date if known in item 18. Otherwise, select "No" or "Unknown."
- **Item 9:** List any prescriptions, over-the-counter medications, dietary supplements, herbal remedies, or other non-traditional/ alternative medicines being taken by the patient when the vaccine(s) was given.
- **Item 10:** List any allergies the patient has to medications, foods, or other products.
- **Item 11:** List any short-term or acute illnesses the patient had on the date of vaccination AND up to one month prior to this date (e.g., cold, stomach flu, ear infection, etc.). This does **NOT** include the adverse event you are reporting.
- **Item 12:** List any chronic or long-standing health conditions the patient has (e.g., asthma, diabetes, heart disease).
- **Item 13:** List the name of the person who is completing the form. Select the "Check if same as item 1" box if you are the patient or if you live at the same address as the patient. The contact information you provided in item 1 will be automatically entered for you. Otherwise, please provide new contact information.
- **Item 14:** List the doctor or other healthcare professional who is the best person to contact to discuss the clinical details of the adverse event.
- **Item 15:** Select the "Check if same as item 13" box if the person completing the form works at the facility that administered the vaccine(s). The contact information provided in item 13 will be automatically entered for you. Otherwise, provide new contact information.
- **Item 16:** Select the option that best describes the type of facility where the vaccine(s) was given.

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- **Item 17:** Include only vaccines given on the date provided in item 4. The vaccine route options include:
  - Injection/shot (intramuscular, subcutaneous, intradermal, jet injection, and unknown)
  - By mouth/oral
  - In nose/intranasal
  - Other (specify)
  - Unknown

  For body site, the options include:
  - Right arm
  - Left arm
  - Arm (side unknown)
  - Right thigh
  - Left thigh
  - Thigh (side unknown)
  - Nose
  - Mouth
  - Other (specify)
  - Unknown

  For vaccines given as a series (i.e., 2 or more doses of the same vaccine given to complete a series), list the dose number for the vaccine in the last column named "Dose number in series."
- **Item 18:** Describe the adverse event(s), treatment, and outcome(s). Include signs and symptoms, when the symptoms occurred, diagnosis, and treatment. Provide specific information if you can (e.g., if patient had a fever, provide the temperature).
- **Item 19:** List any medical tests and laboratory results related to the adverse event(s). Include abnormal findings as well as normal or negative findings.
- **Item 20:** Select "Yes" if the patient's health is the same as it was prior to the vaccination or "No" if the patient has not returned to the same state of health prior to the vaccination, and provide details in item 18. Select "Unknown" if the patient's present condition is not known.
- **Item 21:** Select the result(s) or outcome(s) for the patient. If the patient did not have any of the outcomes listed, select "None of the above." Prolongation of existing hospitalization means the patient received a vaccine during a hospital stay and an adverse event following vaccination occurred that resulted in the patient spending extra time in the hospital. Life threatening illness means you believe this adverse event could have resulted in the death of the patient.
- **Item 22:** List any other vaccines the patient received within one month prior to the vaccination date listed in item 4.
- **Item 23:** Describe the adverse event(s) following any previous vaccine(s). Include patient age at vaccination, dates of vaccination, vaccine type, and brand name.
- **Item 24:** Check all races that apply.
- **Item 25:** Check the single best answer for ethnicity.
- **Item 26:** For health department use only.
- **Items 27 and 28:** Complete only for U.S. Military or Department of Defense related reports. In addition to active duty service members, Reserve and National Guard members, beneficiaries include: retirees, their families, survivors, certain former spouses, and others who are registered in the Defense Enrollment Eligibility Reporting System (DEERS).

GENERAL INFORMATION

- VAERS (www.vaers.hhs.gov) is a national vaccine safety monitoring system that collects information about adverse events (possible reactions or problems) that occur during or after administration of vaccines licensed in the United States.
- VAERS protects patient identity and keeps patient identifying information confidential.
- The Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule permits reporting of protected health information to public health authorities including the Centers for Disease Control and Prevention (CDC) and U.S. Food and Drug Administration (FDA) (45 CFR § 164.512(b)).
- VAERS accepts all reports without judging the importance of the adverse event or whether a vaccine caused the adverse event.
- Acceptance of a VAERS report by CDC and FDA does not constitute admission that the vaccine or healthcare personnel caused or contributed to the reported event.
- The National Vaccine Injury Compensation Program (VICP) is administered by the Health Resources and Services Administration (HRSA). The VICP is separate from the VAERS program and reporting an event to VAERS does not constitute filing a claim for compensation to the VICP (see www.hrsa.gov/vaccinecompensation/index.html).
- Knowingly filing a false VAERS report with the intent to mislead the Department of Health and Human Services is a violation of Federal law (18 U.S. Code § 1001) punishable by fine and imprisonment.

COMMUNICABLE DISEASE FACT SHEETS

Huron County Public Health

COMMUNICABLE DISEASE FACT SHEETS

All communicable disease fact sheets are available online at https://www.huroncohealth.com/communicable-diseases. For any questions regarding the fact sheets, call HCPH at 419-668-1652 ext. 269.

FACT SHEETS AVAILABLE

- Campylobacteriosis
- Chickenpox (Varicella)
- Chlamydia
- E. coli
- Giardiasis
- Gonorrhea
- Hand, Foot, and Mouth Disease
- Head Lice
- Hepatitis B
- Hepatitis C
- Lyme Disease
- Pertussis/Whooping Cough
- Salmonella
- Scabies
- Shigellosis
- Shingles
- Viral Meningitis

Visit the Centers for Disease Control and Prevention's website for more information on communicable diseases: https://www.cdc.gov/diseasesconditions/index.html.

IMMUNIZATIONS

Huron County Public Health

Huron County Public Health (HCPH) provides immunizations to all residents. Huron County Public Health participates in Vaccines for Children, a program that provides low-cost vaccines for infants and children through age 18 who do not have insurance coverage for immunizations. No child is turned away for Vaccines For Children (VFC) vaccines if their family is unable to pay for the shots.

IMMUNIZATION CLINICS

VACCINES AVAILABLE FOR INFANTS, CHILDREN, AND TEENS

- COVID-19
- DTap/Tdap (Tetanus, Diphtheria & Pertussis)
- Hepatitis A
- Hepatitis B
- Hib (Haemophilus b influenza)
- HPV (Gardasil)
- Influenza
- Meningitis
- Meningitis B
- MMR (Measles, Mumps, & Rubella)
- Polio
- Pneumococcal Conjugate
- Rotavirus
- Varicella (Chickenpox)

VACCINES AVAILABLE FOR ADULTS AND TRAVEL VACCINES:

- COVID-19
- Hepatitis A
- Hepatitis B
- Influenza (including high dose & egg-free)
- Japanese Encephalitis (Special Order)
- Meningitis
- MMR (Measles, Mumps & Rubella)
- Pneumonia
- Rabies (Special Order)
- Shingles (Shingrix)
- Td (Tetanus & Diphtheria)
- Tdap (Tetanus, Diphtheria & Pertussis)
- Twinrix (Hepatitis A & B Combined)
- Typhoid
- Varicella (Chickenpox)
- Yellow Fever
- TB test (Tuberculosis)
- Polio
- HPV (Gardasil)

Payments

We are an in-network provider for Medicaid, Medicare, & most private insurances.
No child is turned away for Vaccines For Children (VFC) vaccines if their family is unable to pay for the shots. For families covered by out of network private insurance, we can give you a receipt to turn into your insurance company.

Appointments Required

Norwalk office is located at 28 Executive Drive, Norwalk, OH 44857.

Appointments are also available in Bellevue and New London.

Call Huron County Public Health to make your appointment at 419-668-1652 ext. 241.

Please bring an up-to-date record of all past immunizations.

Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger

UNITED STATES 2025

Vaccines and Other Immunizing Agents in the Child and Adolescent Immunization Schedule*

Monoclonal antibody	Abbreviation(s)	Trade name(s)
Respiratory syncytial virus monoclonal antibody (Nirsevimab)	RSV-mAb	Beyfortus
Vaccine	**Abbreviation(s)**	**Trade name(s)**
COVID-19 vaccine	1vCOV-mRNA	Comirnaty/Pfizer-BioNTech COVID-19 Vaccine
		Spikevax/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel Infanrix
Haemophilus influenzae type b vaccine	Hib (PRP-T)	ActHIB Hiberix
	Hib (PRP-OMP)	PedvaxHIB
Hepatitis A vaccine	HepA	Havrix Vaqta
Hepatitis B vaccine	HepB	Engerix-B Recombivax HB
Human papillomavirus vaccine	HPV	Gardasil 9
Influenza vaccine (inactivated: egg-based)	IIV3	Multiple
Influenza vaccine (inactivated: cell-culture)	ccIIV3	Flucelvax
Influenza vaccine (live, attenuated)	LAIV3	FluMist
Measles, mumps, and rubella vaccine	MMR	M-M-R II Priorix
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM	Menveo
	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
Mpox vaccine	Mpox	Jynneos
Pneumococcal conjugate vaccine	PCV15 PCV20	Vaxneuvance Prevnar 20
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23
Poliovirus vaccine (inactivated)	IPV	Ipol
Respiratory syncytial virus vaccine	RSV	Abrysvo
Rotavirus vaccine	RV1 RV5	Rotarix RotaTeq
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Adacel Boostrix
Tetanus and diphtheria vaccine	Td	Tenivac Tdvax
Varicella vaccine	VAR	Varivax
Combination vaccines *(use combination vaccines instead of separate injections when appropriate)*		
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix
DTaP, inactivated poliovirus, and *Haemophilus influenzae* type b vaccine	DTaP-IPV/Hib	Pentacel
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix Quadracel
DTaP, inactivated poliovirus, *Haemophilus influenzae* type b, and hepatitis B vaccine	DTaP-IPV-Hib-HepB	Vaxelis
Measles, mumps, rubella, and varicella vaccine	MMRV	ProQuad

*Administer recommended vaccines if immunization history is incomplete or unknown. Do not restart or add doses to vaccine series for extended intervals between doses. When a vaccine is not administered at the recommended age, administer at a subsequent visit. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

11/21/2024

How to use the child and adolescent immunization schedule

1 Determine recommended vaccine by age **(Table 1)**

2 Determine recommended interval for catch-up vaccination **(Table 2)**

3 Assess need for additional recommended vaccines by medical condition or other indication **(Table 3)**

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

5 Review contraindications and precautions for vaccine types **(Appendix)**

6 Review new or updated ACIP guidance **(Addendum)**

Recommended by the Advisory Committee on Immunization Practices (www.cdc.gov/acip/index.html) and approved by the Centers for Disease Control and Prevention (www.cdc.gov), American Academy of Pediatrics (www.aap.org), American Academy of Family Physicians (www.aafp.org), American College of Obstetricians and Gynecologists (www.acog.org), American College of Nurse-Midwives (www.midwife.org), American Academy of Physician Associates (www.aapa.org), and National Association of Pediatric Nurse Practitioners (www.napnap.org).

Report

- Suspected cases of reportable vaccine-preventable diseases or outbreaks to your state or local health department
- Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) 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/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/acip/vaccine-recommendations/shared-clinical-decision-making.html
- *General Best Practice Guidelines for Immunization* (including contraindications and precautions): www.cdc.gov/vaccines/hcp/acip-recs/general-recs/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/

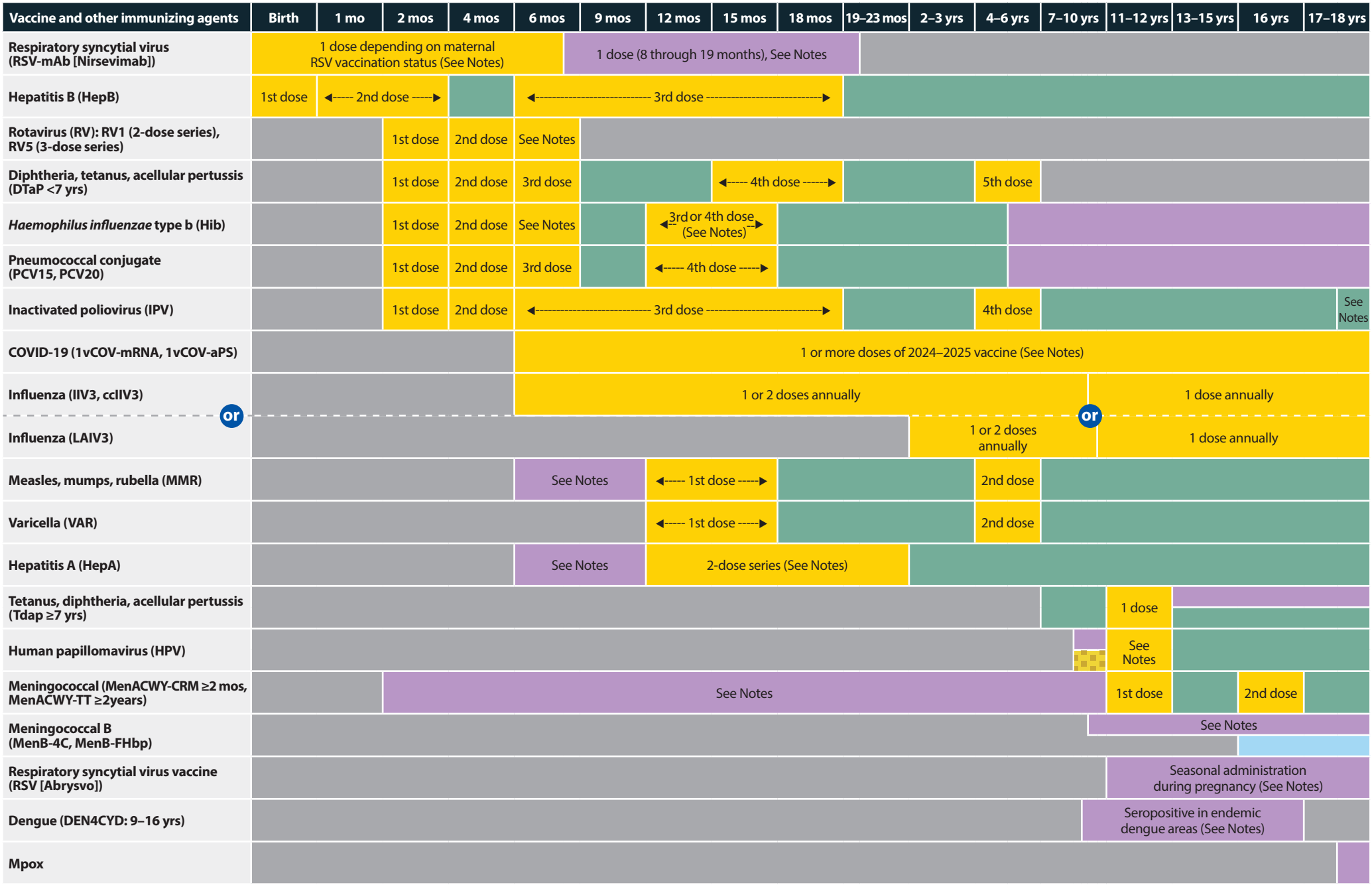
U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

Scan QR code for access to online schedule

CS310020-E

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars.
To determine minimum intervals between doses, see the catch-up schedule (Table 2).



Range of recommended ages for all children
Range of recommended ages for catch-up vaccination
Range of recommended ages for certain high-risk groups or populations
Recommended vaccination can begin in this age group
Recommended vaccination based on shared clinical decision-making
No Guidance/ Not Applicable

Table 2 Recommended Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind, United States, 2025

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age. **Always use this table in conjunction with Table 1 and the Notes that follow.**

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Children age 4 months through 6 years					
Hepatitis B	Birth	**4 weeks**	**8 weeks *and* at least 16 weeks after first dose** minimum age for the final dose is 24 weeks		
Rotavirus	6 weeks Maximum age for first dose is 14 weeks, 6 days.	**4 weeks**	**4 weeks** maximum age for final dose is 8 months, 0 days		
Diphtheria, tetanus, and acellular pertussis	6 weeks	**4 weeks**	**4 weeks**	**6 months**	**6 months** A fifth dose is not necessary if the fourth dose was administered at age 4 years or older ***and*** at least 6 months after dose 3
Haemophilus influenzae type b	6 weeks	**No further doses needed** if first dose was administered at age 15 months or older. **4 weeks** if first dose was administered before the 1st birthday. **8 weeks (as final dose)** if first dose was administered at age 12 through 14 months.	**No further doses needed** if previous dose was administered at age 15 months or older **4 weeks** if current age is younger than 12 months ***and*** first dose was administered at younger than age 7 months ***and*** at least 1 previous dose was PRP-T (ActHib, Pentacel, Hiberix), Vaxelis or unknown **8 weeks *and* age 12 through 59 months (as final dose)** if current age is younger than 12 months ***and*** first dose was administered at age 7 through 11 months; **OR** if current age is 12 through 59 months ***and*** first dose was administered before the 1st birthday ***and*** second dose was administered at younger than 15 months; **OR** if both doses were PedvaxHIB and were administered before the 1st birthday	**8 weeks (as final dose)** This dose only necessary for children age 12 through 59 months who received 3 doses before the 1st birthday.	
Pneumococcal conjugate	6 weeks	**No further doses needed** for healthy children if first dose was administered at age 24 months or older **4 weeks** if first dose was administered before the 1st birthday **8 weeks (as final dose for healthy children)** if first dose was administered at the 1st birthday or after	**No further doses needed** for healthy children if previous dose was administered at age 24 months or older **4 weeks** if current age is younger than 12 months ***and*** previous dose was administered at <7 months old **8 weeks (as final dose for healthy children)** if previous dose was administered between 7–11 months (wait until at least 12 months old); **OR** if current age is 12 months or older ***and*** at least 1 dose was administered before age 12 months	**8 weeks (as final dose)** This dose is only necessary for children age 12 through 59 months regardless of risk, or age 60 through 71 months with any risk, who received 3 doses before age 12 months.	
Inactivated poliovirus	6 weeks	**4 weeks**	**4 weeks** if current age is <4 years **6 months (as final dose)** if current age is 4 years or older	**6 months (minimum age 4 years for final dose)**	
Measles, mumps, rubella	12 months	**4 weeks**			
Varicella	12 months	**3 months**			
Hepatitis A	12 months	**6 months**			
Meningococcal ACWY	2 months MenACWY-CRM 2 years MenACWY-TT	**8 weeks**	See Notes	See Notes	
Children and adolescents age 7 through 18 years					
Meningococcal ACWY	Not applicable (N/A)	**8 weeks**			
Tetanus, diphtheria; tetanus, diphtheria, and acellular pertussis	7 years	**4 weeks**	**4 weeks** if first dose of DTaP/DT was administered before the 1st birthday **6 months (as final dose)** if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday	**6 months** if first dose of DTaP/DT was administered before the 1st birthday	
Human papillomavirus	9 years	**Routine dosing intervals are recommended.**			
Hepatitis A	N/A	**6 months**			
Hepatitis B	N/A	**4 weeks**	**8 weeks *and* at least 16 weeks after first dose**		
Inactivated poliovirus	N/A	**4 weeks**	**6 months** A fourth dose is not necessary if the third dose was administered at age 4 years or older ***and*** at least 6 months after the previous dose.	A fourth dose of IPV is indicated if all previous doses were administered at <4 years **OR** if the third dose was administered <6 months after the second dose.	
Measles, mumps, rubella	N/A	**4 weeks**			
Varicella	N/A	**3 months** if younger than age 13 years. **4 weeks** if age 13 years or older			
Dengue	9 years	**6 months**	6 months		

Table 3 Recommended Child and Adolescent Immunization Schedule by Medical Indication, United States, 2025

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

Vaccine and other immunizing agents	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count[a]		CSF leak or cochlear implant	Asplenia or persistent complement component deficiencies	Heart disease or chronic lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease	Diabetes
			<15% or <200mm³	≥15% and ≥200mm³						
RSV-mAb (nirsevimab)		2nd RSV season		1 dose depending on maternal RSV vaccination status (See Notes)			2nd RSV season for chronic lung disease (See Notes)	1 dose depending on maternal RSV vaccination status (See Notes)		
Hepatitis B										
Rotavirus		SCID[b]								
DTaP/Tdap	DTaP Tdap: 1 dose each pregnancy									
Hib		HSCT: 3 doses	See Notes			See Notes				
Pneumococcal										
IPV										
COVID-19		See Notes								
Influenza inactivated		Solid organ transplant: 18yrs (See Notes)								
LAIV3							Asthma, wheezing: 2–4 years[c]			
MMR	*									
VAR	*									
Hepatitis A										
HPV	*	3-dose series (See Notes)								
MenACWY										
MenB										
RSV (Abrysvo)	Seasonal administration (See Notes)									
Dengue										
Mpox	See Notes									

Recommended for all age-eligible children who lack documentation of a complete vaccination series

Not recommended for all children, but recommended for some children based on increased risk for or severe outcomes from disease

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

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

Contraindicated or not recommended
*Vaccinate after pregnancy, if indicated

No Guidance/ Not Applicable

a. For additional information regarding HIV laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html.

b. Severe Combined Immunodeficiency

c. LAIV3 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Notes

For vaccination recommendations for persons ages 19 years or older, see the Recommended Adult Immunization Schedule, 2025.

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 as age appropriate. **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, and Immunization in Special Clinical Circumstances (In: Kimberlin DW, Barnett ED, Lynfield Ruth, Sawyer MH, eds. *Red Book: 2021–2024 Report of the Committee on Infectious Diseases*. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021:72–86).
- 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 child and adolescent vaccine schedule are covered by VICP except dengue, PPSV23, RSV, Mpox and COVID-19 vaccines. 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

(minimum age: 6 months [Moderna and Pfizer-BioNTech COVID-19 vaccines], 12 years [Novavax COVID-19 Vaccine])

Routine vaccination

Age 6 months–4 years

All vaccine doses should be from the same manufacturer.

- **Unvaccinated:**
  - 2 doses 2024–25 Moderna at 0, 4–8 weeks
  - 3 doses 2024–25 Pfizer-BioNTech at 0, 3–8, and at least 8 weeks after dose 2
- **Incomplete initial vaccination series before 2024–25 vaccine with:**
  - **1 dose Moderna:** complete initial series with 1 dose 2024–25 Moderna 4–8 weeks after most recent dose
  - **1 dose Pfizer-BioNTech:** complete initial series with 2 doses 2024–25 Pfizer-BioNTech 8 weeks apart (administer dose 1 3–8 weeks after most recent dose).
  - **2 doses Pfizer-BioNTech:** complete initial series with 1 dose 2024–25 Pfizer-BioNTech at least 8 weeks after the most recent dose.
- **Completed initial vaccination series before 2024–25 vaccine with:**
  - **2 or more doses Moderna:** 1 dose 2024–25 Moderna at least 8 weeks after the most recent dose.
  - **3 or more doses Pfizer-BioNTech:** 1 dose 2024–25 Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 5–11 years

- **Unvaccinated:** 1 dose 2024–25 Moderna or Pfizer-BioNTech
- **Previously vaccinated before 2024–25 vaccine with 1 or more doses Moderna or Pfizer-BioNTech:** 1 dose 2024–25 Moderna or Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 12–18 years

- **Unvaccinated:**
  - 1 dose 2024–25 Moderna or Pfizer-BioNTech
  - 2 doses 2024–25 Novavax at 0, 3–8 weeks
- **Previously vaccinated before 2024–25 vaccine with:**
  - **1 or more doses Moderna or Pfizer-BioNTech:** 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.
  - **1 dose Novavax:** 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.
  - **2 or more doses Novavax:** 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.

Special situation

Persons who are moderately or severely immunocompromised.

Age 6 months–4 years

*Use vaccine from the same manufacturer for all doses **(initial vaccination series and additional doses*)**.*

- **Unvaccinated:**
  - 4 doses (**3-dose initial series 2024–25 Moderna** at 0, 4 weeks, and at least 4 weeks after dose 2, followed by 1 dose 2024–25 Moderna 6 months later [minimum interval 2 months]).May administer additional doses.*
  - 4 doses (**3-dose initial series 2024–25 Pfizer-BioNTech** at 0, 3 weeks, and at least 8 weeks after dose 2, followed by 1 dose 2024–25 Pfizer-BioNTech 6 months later [minimum interval 2 months]). May administer additional doses.*
- **Incomplete initial 3-dose vaccination series before 2024–25 vaccine:**
  - **Previous vaccination with Moderna**
    - **1 dose Moderna:** 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 6 months later (minimum interval 2 months). May administer additional doses of Moderna.*
    - **2 doses Moderna:** complete initial series with 1 dose 2024–25 Moderna at least 4 weeks after most recent dose, followed by 1 dose 2024–25 Moderna 6 months later (minimum interval 2 months). May administer additional doses of Moderna.*
  - **Previous vaccination with Pfizer-BioNTech**
    - **1 dose Pfizer-BioNTech:** complete initial series with 2 doses 2024–25 Pfizer-BioNTech at least 8 weeks apart (administer dose 1 3 weeks after most recent dose), followed by 1 dose 2024–25 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Pfizer-BioNTech.*
    - **2 doses Pfizer-BioNTech:** complete initial series with 1 dose 2024–25 Pfizer-BioNTech at least 8 weeks after most recent dose, followed by 1 dose 2024–25 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Pfizer-BioNTech.*

COVID-19 vaccination - *continued*

- **Completed initial 3-dose vaccination series before 2024–25 vaccine with:**
  - **3 or more doses Moderna:** 2 doses 2024–25 Moderna 6 months apart (minimum interval 2 months). Administer dose 1 at least 8 weeks after the most recent dose. May administer additional doses of Moderna.*
  - **3 or more doses Pfizer-BioNTech:** 2 doses 2024–25 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 of Pfizer-BioNTech.*

Age 5–11 years

Use vaccine from the same manufacturer for all doses in the initial vaccination series.

- **Unvaccinated:**
  - 4 doses (**3-dose initial series 2024–25 Moderna** at 0, 4 weeks, and at least 4 weeks after dose 2, followed by 1 dose 2024–25 Moderna or Pfizer-BioNTech 6 months later [minimum interval 2 months]). May administer additional doses.*
  - 4 doses (**3-dose initial series 2024–25 Pfizer-BioNTech** at 0, 3 weeks, and at least 4 weeks after dose 2, followed by 1 dose 2024–25 Moderna or Pfizer-BioNTech 6 months later [minimum interval 2 months]). May administer additional doses.*
- **Incomplete initial 3-dose vaccination series before 2024–25 vaccine:**
  - **Previous vaccination with Moderna**
    - **1 dose Moderna:** 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 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Moderna or Pfizer-BioNTech.*
    - **2 doses Moderna:** 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 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Moderna or Pfizer-BioNTech.*
  - **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 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Moderna or Pfizer-BioNTech.*
    - **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 Pfizer-BioNTech 6 months later (minimum interval 2 months). May administer additional doses of Moderna or Pfizer-BioNTech.*
- **Completed initial 3-dose 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 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 of Moderna or Pfizer-BioNTech.*

Age 12–18 years

Use vaccine from the same manufacturer for all doses in the initial vaccination series.

- **Unvaccinated:**
  - 4 doses (**3-dose initial series Moderna** 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 of Moderna or Novavax or Pfizer-BioNTech.*
  - 4 doses (**3-dose initial series Pfizer-BioNTech** at 0, 3 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 of Moderna or Novavax or Pfizer-BioNTech.*
  - 3 doses (**2-dose initial series Novavax** 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 of Moderna or Novavax or Pfizer-BioNTech.*
- **Incomplete initial vaccination series before 2024–25 vaccine:**
  - **Previous vaccination with Moderna**
    - **1 dose Moderna:** 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 of Moderna or Novavax or Pfizer-BioNTech.*
    - **2 doses Moderna:** 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 of Moderna or Novavax or Pfizer-BioNTech.*
  - **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 of Moderna or Novavax or Pfizer-BioNTech.*
    - **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 of Moderna or Novavax or Pfizer-BioNTech.*
  - **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 of Moderna or Novavax or Pfizer-BioNTech.*

COVID-19 vaccination - *continued*

- **Completed initial 3-dose 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 of Moderna or Novavax or Pfizer-BioNTech.*
  - **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 of Moderna or Novavax or Pfizer-BioNTech.*

***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.). 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.

Unvaccinated persons have never received any COVID-19 vaccine doses. 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. Administer an age-appropriate COVID-19 vaccine product for each dose.

For information about transition from age 4 years to age 5 years or age 11 years to age 12 years during COVID-19 vaccination series, see Tables 1 and 2 at www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html.

For information about interchangeability of COVID-19 vaccines, see www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#Interchangeability.

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

Dengue vaccination (minimum age: 9 years)

Routine vaccination

- Age 9–16 years living in areas with endemic dengue **AND** have laboratory confirmation of previous dengue infection
  - 3-dose series administered at 0, 6, and 12 months
- Endemic areas include Puerto Rico, American Samoa, US Virgin Islands, Federated States of Micronesia, Republic of Marshall Islands, and the Republic of Palau. For updated guidance on dengue endemic areas and pre-vaccination laboratory testing see www.cdc.gov/mmwr/volumes/70/rr/rr7006a1.htm?s_cid=rr7006a1_w and www.cdc.gov/dengue/index.html
- Dengue vaccine should not be administered to children traveling to or visiting endemic dengue areas.

Diphtheria, tetanus, and pertussis (DTaP) vaccination (minimum age: 6 weeks [4 years for Kinrix or Quadracel])

Routine vaccination

- 5-dose series (3-dose primary series at age 2, 4, and 6 months, followed by booster doses at ages 15–18 months and 4–6 years)
  - **Prospectively:** Dose 4 may be administered as early as age 12 months if at least 6 months have elapsed since dose 3.
  - **Retrospectively:** A 4th dose that was inadvertently administered as early as age 12 months may be counted if at least 4 months have elapsed since dose 3.

Catch-up vaccination

- Dose 5 is not necessary if dose 4 was administered at age 4 years or older and at least 6 months after dose 3.
- For other catch-up guidance, see Table 2.

Special situations

- **Children younger than age 7 years with a contraindication specific to the pertussis component of DTaP:** May administer Td for all recommended remaining doses in place of DTaP. Encephalopathy within 7 days of vaccination when not attributable to another identifiable cause is the only contraindication specific to the pertussis component of DTaP. For additional information, see www.cdc.gov/pertussis/hcp/vaccine-recommendations/td-offlabel.html.
- **Wound management in children younger than age 7 years with history of 3 or more doses of tetanus-toxoid-containing vaccine:** For all wounds except clean and minor wounds, administer DTaP if more than 5 years since last dose of tetanus-toxoid-containing vaccine. For detailed information, see www.cdc.gov/mmwr/volumes/67/rr/rr6702a1.htm.

Haemophilus influenzae type b vaccination (minimum age: 6 weeks)

Routine vaccination

- **ActHIB, Hiberix, Pentacel, or Vaxelis:** 4-dose series (3-dose primary series at age 2, 4, and 6 months, followed by a booster dose* at age 12–15 months)
  - *Vaxelis is not recommended for use as a booster dose. A different Hib-containing vaccine should be used for the booster dose.
- **PedvaxHIB:** 3-dose series (2-dose primary series at age 2 and 4 months, followed by a booster dose at age 12–15 months)
- **American Indian and Alaska Native infants:** Vaxelis and PedvaxHIB preferred over other Hib vaccines for the primary series.

Catch-up vaccination

- **Dose 1 at age 7–11 months:** Administer dose 2 at least 4 weeks later and dose 3 (final dose) at age12–15 months or 8 weeks after dose 2 (whichever is later).
- **Dose 1 at age 12–14 months:** Administer dose 2 (final dose) at least 8 weeks after dose 1.
- **Dose 1 before age 12 months and dose 2 before age 15 months:** Administer dose 3 (final dose) at least 8 weeks after dose 2.
- **2 doses of PedvaxHIB before age 12 months:** Administer dose 3 (final dose) at age12–59 months and at least 8 weeks after dose 2.
- **1 dose administered at age 15 months or older:** No further doses needed
- **Unvaccinated at age 15–59 months:** Administer 1 dose.
- **Previously unvaccinated children age 60 months or older who are not considered high risk:** Catch-up vaccination not required.

For other catch-up guidance, see Table 2. Vaxelis can be used for catch-up vaccination in children younger than age 5 years. Follow the catch-up schedule even if Vaxelis is used for one or more doses. For detailed information on use of Vaxelis see www.cdc.gov/mmwr/volumes/69/wr/mm6905a5.htm.

Haemophilus influenzae type b vaccination - *continued*

Special situations

- **Chemotherapy or radiation treatment:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Doses administered within 14 days of starting therapy or during therapy should be repeated at least 3 months after therapy completion.
- **Hematopoietic stem cell transplant (HSCT):**
  - 3-dose series 4 weeks apart starting 6 to 12 months after successful transplant, regardless of Hib vaccination history
- **Anatomic or functional asplenia (including sickle cell disease):**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Unvaccinated* persons age 5 years or older
  - 1 dose
- **Elective splenectomy:**
  Unvaccinated* persons age 15 months or older
  - 1 dose (preferably at least 14 days before procedure)
- **HIV infection:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Unvaccinated* persons age 5–18 years
  - 1 dose
- **Immunoglobulin deficiency, early component complement deficiency, or early component complement inhibitor use:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

Unvaccinated* = Less than routine series (through age 14 months) **or no doses (age 15 months or older)

Hepatitis A vaccination (minimum age: 12 months for routine vaccination)

Routine vaccination

- **2-dose series** (minimum interval: 6 months) at age 12–23 months

Catch-up vaccination

- **Unvaccinated persons through age 18 years should complete a 2-dose series** (minimum interval: 6 months).
- Persons who previously received 1 dose at age 12 months or older should receive dose 2 at least 6 months after dose 1.
- Adolescents age 18 years or older may receive HepA-HepB (Twinrix) as a 3-dose series (0, 1, and 6 months) or 4-dose series (3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months).

International travel

- Persons traveling to or working in countries with high or intermediate endemic hepatitis A (www.cdc.gov/travel/):
  - **Infants age 6–11 months**: 1 dose before departure; revaccinate with 2 doses (separated by at least 6 months) between age 12–23 months.
  - **Unvaccinated age 12 months or older**: Administer dose 1 as soon as travel is considered.

Hepatitis B vaccination (minimum age: birth)

Routine vaccination

- **Mother is HBsAg-negative**
  - 3-dose series at age 0, 1–2, 6–18 months **(use monovalent HepB vaccine for doses administered before age 6 weeks)**
    - Birth weight ≥2,000 grams: 1 dose within 24 hours of birth if medically stable
    - Birth weight <2,000 grams: 1 dose at chronological age 1 month or hospital discharge (whichever is earlier and even if weight is still <2,000 grams)
  - Infants who did not receive a birth dose should begin the series as soon as possible (see Table 2 for minimum intervals).
  - Administration of 4 doses is permitted when a combination vaccine containing HepB is used after the birth dose.
  - **Minimum intervals (see Table 2):** when 4 doses are administered, substitute "dose 4" for "dose 3" in these calculations.
  - **Final (3rd or 4th) dose:** age 6–18 months **(minimum age 24 weeks)**
- **Mother is HBsAg-positive**
  - **Birth dose (monovalent HepB vaccine only):** administer **HepB vaccine** and **hepatitis B immune globulin (HBIG)** in separate limbs within 12 hours of birth, regardless of birth weight.
  - **Birth weight <2000 grams:** administer 3 additional doses of HepB vaccine beginning at age 1 month (total of 4 doses).
  - **Final (3rd or 4th) dose:** administer at age 6 months **(minimum age 24 weeks)**.
  - Test for HBsAg and anti-HBs at age 9–12 months. If HepB series is delayed, test 1–2 months after final dose. Do not test before age 9 months.

Hepatitis B vaccination - *continued*

- **Mother is HBsAg-unknown**

  If other evidence suggestive of maternal hepatitis B infection exists (e.g., presence of HBV DNA, HBeAg-positive, or mother known to have chronic hepatitis B infection), manage infant as if mother is HBsAg-positive.
  - **Birth dose (monovalent HepB vaccine only):**
    - Birth weight ≥2,000 grams: administer **HepB vaccine** within 12 hours of birth. Determine mother's HBsAg status as soon as possible. If mother is determined to be HBsAg-positive, administer **HBIG** as soon as possible (in separate limb), but no later than 7 days of age.
    - Birth weight <2,000 grams: administer **HepB vaccine** and **HBIG** (in separate limbs) within 12 hours of birth. Administer 3 additional doses of **HepB vaccine** beginning at age 1 month (total of 4 doses).
  - **Final (3rd or 4th) dose:** administer at age 6 months **(minimum age 24 weeks)**.
  - If mother is determined to be HBsAg-positive or if status remains unknown, test for HBsAg and anti-HBs at age 9–12 months. If HepB series is delayed, test 1–2 months after final dose. Do not test before age 9 months.

Catch-up vaccination

- Unvaccinated persons should complete a 3-dose series at 0, 1–2, 6 months. See Table 2 for minimum intervals.
- Adolescents age 11–15 years may use an alternative 2-dose schedule with at least 4 months between doses (adult formulation **Recombivax HB** only).
- Adolescents age 18 years may receive:
  - **Heplisav-B:** 2-dose series at least 4 weeks apart
  - **PreHevbrio*:** 3-dose series at 0, 1, and 6 months
  - **HepA-HepB (Twinrix):** 3-dose series (0, 1, and 6 months) or 4-dose series (3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months).

Special situations

- Revaccination is generally not recommended for persons with a normal immune status who were vaccinated as infants, children, adolescents, or adults.
- **Post-vaccination serology testing and revaccination** (if anti-HBs <10mIU/mL) is recommended for certain populations, including:
  - Infants born to HBsAg-positive mothers
  - Persons who are predialysis or on maintenance dialysis
  - Other immunocompromised persons
  - For detailed revaccination recommendations, see www.cdc.gov/mmwr/volumes/67/rr/rr6701a1.htm.

***Note:** PreHevbrio is not recommended in pregnancy due to lack of safety data in pregnant persons.

Human papillomavirus vaccination (minimum age: 9 years)

Routine and catch-up vaccination

- HPV vaccination routinely recommended at **age 11–12 years (can start at age 9 years)** and catch-up HPV vaccination recommended for all persons through age 18 years if not adequately vaccinated.
- 2- or 3-dose series depending on age at initial vaccination:
  - **Age 9–14 years at initial vaccination**: 2-dose series at 0, 6–12 months (minimum interval: 5 months; repeat dose if administered too soon)
  - **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 recommended dosing intervals.

Special situations

- **Immunocompromising conditions, including HIV infection:** 3-dose series, even for those who initiate vaccination at age 9 through 14 years.
- **History of sexual abuse or assault:** Start at age 9 years
- **Pregnancy:** Pregnancy testing not needed before vaccination; HPV vaccination not recommended until after pregnancy; no intervention needed if vaccinated while pregnant

Influenza vaccination (minimum age: 6 months [IIV3], 2 years [LAIV3],18 years [recombinant influenza vaccine, RIV3])

Routine vaccination

- Use any influenza vaccine appropriate for age and health status annually:
  - **Age 6 months–8 years** who have received fewer than 2 influenza vaccine doses before July 1, 2024, or whose influenza vaccination history is unknown: 2 doses, separated by at least 4 weeks. Administer dose 2 even if the child turns 9 years between receipt of dose 1 and dose 2.
  - **Age 6 months–8 years** who have received at least 2 influenza vaccine doses before July 1, 2024: 1 dose.
  - **Age 9 years or older:** 1 dose
  - **Age 18 years solid organ transplant recipients receiving immunosuppressive medications:** high-dose inactivated (HD-IIV3) and adjuvanted inactivated (aIIV3) influenza vaccines are acceptable options. No preference over other age-appropriate IIV3 or RIV3.
- 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., household contacts) of severely immunosuppressed persons who require a protected environment:** should not receive LAIV3. If LAIV3 is given, they should avoid contact with, or 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.

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Measles, mumps, and rubella vaccination
(minimum age: 12 months for routine vaccination)

Routine vaccination
- 2-dose series at age 12–15 months, age 4–6 years
- MMR or MMRV* may be administered

Note: For dose 1 in children age 12–47 months, it is recommended to administer MMR and varicella vaccines separately. MMRV* may be used if parents or caregivers express a preference.

Catch-up vaccination
- **Unvaccinated children and adolescents:** 2-dose series at least 4 weeks apart*
- The maximum age for use of MMRV* is 12 years.

Special situations
- **International travel**
  - **Infants age 6–11 months:** 1 dose before departure; revaccinate with 2-dose series at age 12–15 months (12 months for children in high-risk areas) and dose 2 as early as 4 weeks later.*
  - **Children age 12 months or older:**
    - Unvaccinated: 2-dose series (separated by at least 4 weeks*) before departure
    - Previously received 1 dose: administer dose 2 at least 4 weeks after dose 1*
- 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

***Note:** If MMRV is used, the minimum interval between MMRV doses is 3 months.

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Meningococcal serogroup A,C,W,Y vaccination
(minimum age: 2 months [MenACWY-CRM, Menveo], 2 years [MenACWY-TT, MenQuadfi]), 10 years [MenACWY-TT/MenB-FHbp, Penbraya])

Routine vaccination
- 2-dose series at age 11–12 years; 16 years

Catch-up vaccination
- **Age 13–15 years:** 1 dose now and booster at age 16–18 years (minimum interval: 8 weeks)
- **Age 16–18 years:** 1 dose

Special situations
Anatomic or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

- **Menveo***
  - Dose 1 at age 2 months: 4-dose series (additional 3 doses at age 4, 6, and 12 months)
  - Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)
  - Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)
  - Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart
- **MenQuadfi**
  - Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart

Travel to countries with hyperendemic or epidemic meningococcal disease, including countries in the African meningitis belt or during the Hajj (www.cdc.gov/travel/)**:**

- **Children younger than age 24 months:**
  - **Menveo* (age 2–23 months)**
    - Dose 1 at age 2 months: 4-dose series (additional 3 doses at age 4, 6, and 12 months)
    - Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)
    - Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)
- **Children age 2 years or older:** 1 dose Menveo* or MenQuadfi

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

Adolescent vaccination of children who received MenACWY prior to age 10 years:

- **Children for whom boosters are recommended because of an ongoing increased risk of meningococcal disease** (e.g., those with complement component deficiency, HIV, or asplenia): Follow the booster schedule for persons at increased risk.
- **Children for whom boosters are not recommended** (e.g., a healthy child who received a single dose for travel to a country where meningococcal disease is endemic): Administer MenACWY according to the recommended adolescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

**Menveo has two formulations: lyophilized and liquid. The liquid formulation should not be used before age 10 years. See www.cdc.gov/vaccines/vpd/mening/downloads/menveo-single-vial-presentation.pdf.*

Note: For MenACWY **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Children age 10 years or older may receive a single dose of Penbraya as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day (see "Meningococcal serogroup B vaccination" section below for more information).

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Meningococcal serogroup B vaccination
(minimum age: 10 years [MenB-4C, Bexsero; MenB-FHbp, Trumenba; MenACWY-TT/MenB-FHbp, Penbraya])

Shared clinical decision-making

- **Adolescents not at increased risk age 16–23 years (preferred age 16–18 years)* 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/hcp/admin/downloads/isd-job-aid-scdm-mening-b-shared-clinical-decision-making.pdf

Special situations

Anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use.

- **Bexsero or Trumenba (use same brand for all doses including booster doses)** 3-dose 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)

For MenB **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see 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.

Children age 10 years or older may receive a 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 age-eligible children not at increased risk, if Penbraya is used for dose 1 MenB, MenB-FHbp (Trumenba) should be administered for dose 2 MenB. For age-eligible children 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.

Mpox vaccination
(minimum age: 18 years [Jynneos])

Special situations

- **Age 18 years and at risk for mpox infection:** complete 2-dose series, 28 days apart.

  Risk factors for mpox infection include:
  - Persons who are gay, 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.

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

Pneumococcal vaccination
(minimum age: 6 weeks [PCV15], [PCV 20]; 2 years [PPSV23])

Routine vaccination with PCV

- 4-dose series at 2, 4, 6, 12–15 months

Catch-up vaccination with PCV

- Healthy children ages 2–4 years with any incomplete* PCV series: 1 dose PCV
- For other catch-up guidance, see Table 2.

Note: For children **without** risk conditions, PCV20 is not indicated if they have received 4 doses of PCV13 or PCV15 or another age appropriate complete PCV series.

Special situations

Children and adolescents with cerebrospinal fluid leak; chronic heart disease; chronic kidney disease (excluding maintenance dialysis and nephrotic syndrome); chronic liver disease; chronic lung disease (including moderate persistent or severe persistent asthma); cochlear implant; or diabetes mellitus:

Age 2–5 years

- Any incomplete* PCV series with:
  - 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
  - Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23.
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: administer 1 dose PCV20 or 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.

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Pneumococcal vaccination - *continued*

Age 6–18 years

- Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: 1 dose PCV20 or 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.
- Received PCV13 only at or after age 6 years: administer 1 dose PCV20 or 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose.
- Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: no further doses of any PCV or PPSV23 indicated.

Children and adolescents on maintenance dialysis, or with immunocompromising conditions such as nephrotic syndrome; congenital or acquired asplenia or splenic dysfunction; congenital or acquired immunodeficiencies; diseases and conditions treated with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, Hodgkin disease, and solid organ transplant; HIV infection; or sickle cell disease or other hemoglobinopathies:

Age 2–5 years

- Any incomplete* PCV series:
  - 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
  - Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: administer 1 dose PCV20 or 1 dose PPSV23 at least 8 weeks after the most recent PCV dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.

Age 6–18 years

- Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or 1 dose of PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no additional dose of PCV or PPSV23
  - Not previously received PCV20: administer 1 dose PCV20 or 1 dose PPSV23 at least 8 weeks after the most recent PCV dose. If PPSV23 is used, administer either PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.
- Received PCV13 only at or after age 6 years: administer 1 dose PCV20 or 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.
- Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: administer 1 dose PCV20 or 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose and at least 5 years after dose 1 PPSV23.

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

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

**Incomplete series* = Not having received all doses in either the recommended series or an age-appropriate catch-up series. See Table 2 in ACIP pneumococcal recommendations at stacks.cdc.gov/view/cdc/133252

***When both PCV15 and PPSV23 are indicated, administer all doses of PCV15 first. PCV15 and PPSV23 should not be administered during the same visit.*

Poliovirus vaccination (minimum age: 6 weeks)

Routine vaccination

- 4-dose series at ages 2, 4, 6–18 months, 4–6 years; administer the final dose on or after age 4 years and at least 6 months after the previous dose.
- 4 or more doses of IPV can be administered before age 4 years when a combination vaccine containing IPV is used. However, a dose is still recommended on or after age 4 years and at least 6 months after the previous dose.

Catch-up vaccination

- In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak.
- **Adolescents age 18 years 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 persons aged 18 years or older born and raised in the United States can assume they were vaccinated against polio as children.

Series containing oral poliovirus vaccine (OPV), either mixed OPV-IPV or OPV-only series:

- Total number of doses needed to complete the series is the same as that recommended for the U.S. IPV schedule. See www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm?s_%20cid=mm6601a6_w.
- Only trivalent OPV (tOPV) counts toward the U.S. vaccination requirements.
  - Doses of OPV administered before April 1, 2016, should be counted (unless specifically noted as administered during a campaign).
  - Doses of OPV administered on or after April 1, 2016, should not be counted.
  - For guidance to assess doses documented as "OPV," see www.cdc.gov/mmwr/volumes/66/wr/mm6606a7.htm?s_cid=mm6606a7_w.
- For other catch-up guidance, see Table 2.

Special situations

- **Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*:** may administer one lifetime IPV booster

***Note:** Complete primary series consist 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 immunization
(minimum age: birth [Nirsevimab, RSV-mAb, Beyfortus])

Routine immunization

- **Infants born October – March in most of the continental United States***
  - Mother did not receive RSV vaccine or mother's RSV vaccination status is unknown or mother received RSV vaccine in previous pregnancy: administer 1 dose nirsevimab within 1 week of birth—ideally during the birth hospitalization.
  - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab within 1 week of birth—ideally during the birth hospitalization.
  - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers (see www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)
- **Infants born April–September in most of the continental United States***
  - Mother did not receive RSV vaccine or mother's RSV vaccination status is unknown or mother received RSV vaccine in previous pregnancy: administer 1 dose nirsevimab shortly before start of RSV season.*
  - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab shortly before start of RSV season.*
  - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers (see www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)

Infants with prolonged birth hospitalization** (e.g., for prematurity) discharged October through March should be immunized shortly before or promptly after discharge.

Special situations

- **Ages 8–19 months with chronic lung disease of prematurity requiring medical support (e.g., chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season; severe immunocompromise; cystic fibrosis with either weight for length <10th percentile or manifestation of severe lung disease (e.g., previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable)**:**
  - 1 dose nirsevimab shortly before start of second RSV season*
- **Ages 8–19 months who are American Indian or Alaska Native:** 1 dose nirsevimab shortly before start of second RSV season*
- **Age-eligible and undergoing cardiac surgery with cardiopulmonary bypass**:** 1 additional dose of nirsevimab after surgery. See www.accessdata.fda.gov/drugsatfda_docs/label/2023/761328s000lbl.pdf

***Note:** While the timing of the onset and duration of RSV season may vary, administration of nirsevimab is recommended October through March in most of the continental United States (optimally October through November or within 1 week of birth). Providers in jurisdictions with RSV seasonality that differs from most of the continental United States (e.g., Alaska, jurisdiction with tropical climate) should follow guidance from public health authorities (e.g., CDC, health departments) or regional medical centers on timing of administration based on local RSV seasonality.

****Note:** Nirsevimab can be administered to children who are eligible to receive palivizumab. Children who have received nirsevimab should not receive palivizumab for the same RSV season.

For further guidance, see www.cdc.gov/mmwr/volumes/72/wr/mm7234a4.htm and www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html

Respiratory syncytial virus vaccination
(RSV [Abrysvo])

Routine vaccination

- **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 persons:** 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 persons 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 (e.g., CDC, health departments) or regional medical centers on timing of administration based on local RSV seasonality.

Rotavirus vaccination
(minimum age: 6 weeks)

Routine vaccination

- **Rotarix:** 2-dose series at age 2 and 4 months
- **RotaTeq:** 3-dose series at age 2, 4, and 6 months
- If any dose in the series is either **RotaTeq** or unknown, default to 3-dose series.

Catch-up vaccination

- Do not start the series on or after age 15 weeks, 0 days.
- The maximum age for the final dose is 8 months, 0 days.
- For other catch-up guidance, see Table 2.

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Tetanus, diphtheria, and pertussis (Tdap) vaccination (minimum age: 11 years for routine vaccination, 7 years for catch-up vaccination)

Routine vaccination

- **Age 11–12 years:** 1 dose Tdap (adolescent booster)
- **Pregnancy:** 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36

Note: Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid-containing vaccine.

Catch-up vaccination

- **Age 13–18 years who have not received Tdap:** 1 dose Tdap (adolescent booster)
- **Age 7–18 years not fully vaccinated* with DTaP:** 1 dose Tdap as part of the catch-up series (preferably the first dose); if additional doses are needed, use Td or Tdap.
- **Tdap administered at age 7–10 years:**
  - **Age 7–9 years** who receive Tdap should receive the adolescent Tdap booster dose at age 11–12 years
  - **Age 10 years** who receive Tdap do not need the adolescent Tdap booster dose at age 11–12 years
- **DTaP inadvertently administered on or after age 7 years**:
  - **Age 7–9 years**: DTaP may count as part of catch-up series. Administer adolescent Tdap booster dose at age 11–12 years.
  - **Age 10–18 years**: Count dose of DTaP as the adolescent Tdap booster dose.
- For other catch-up guidance, see Table 2.

Special situations

- **Wound management** in persons age 7 years or older with history of 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 age 11 years or older who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant adolescent, use Tdap.
- For detailed information, see www.cdc.gov/mmwr/volumes/69/wr/mm6903a5.htm.

**Fully vaccinated* = 5 valid doses of DTaP or 4 valid doses of DTaP if dose 4 was administered at age 4 years or older

Varicella vaccination (minimum age: 12 months)

Routine vaccination

- 2-dose series at age 12–15 months, 4–6 years
- VAR or MMRV may be administered*
- Dose 2 may be administered as early as 3 months after dose 1 (a dose inadvertently administered after at least 4 weeks may be counted as valid).

**Note:* For dose 1 in children age 12–47 months, it is recommended to administer MMR and varicella vaccines separately. MMRV may be used if parents or caregivers express a preference.

Catch-up vaccination

- Ensure persons age 7–18 years without evidence of immunity (see *MMWR* at www.cdc.gov/mmwr/pdf/rr/rr5604.pdf) have a 2-dose series:
  - **Age 7–12 years**: Routine interval: 3 months (a dose inadvertently administered after at least 4 weeks may be counted as valid)
  - **Age 13 years and older**: Routine interval: 4–8 weeks (minimum interval: 4 weeks)
  - The maximum age for use of *MMRV* is 12 years.

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Appendix Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

Guide to 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 [Pfizer-BioNTech, Moderna]	• 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 vaccine[3]; 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 [Novavax]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID-19 vaccine[3]	• Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID-19 vaccine[3]; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax 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
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 component[4] (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 (ccIIV3) [Flucelvax]	• Severe allergic reaction (e.g., anaphylaxis) to any ccIIV of any valency, or to any component[4] of ccIIV3	• 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[4] 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 component[4] (excluding egg) • Children age 2–4 years with a history of asthma or wheezing • 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 • Children and adolescents receiving aspirin or salicylate-containing medications • 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 age 5 years old 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. 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 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

Vaccines and other Immunizing Agents	Contraindicated or Not Recommended[1]	Precautions[2]
Dengue (DEN4CYD)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • 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) • Lack of laboratory confirmation of a previous dengue infection	• Pregnancy • HIV infection without evidence of severe immunosuppression • Moderate or severe acute illness with or without fever
Diphtheria, tetanus, pertussis (DTaP)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Encephalopathy (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 or DTaP	• Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid–containing vaccine • 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 • For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized • Moderate or severe acute illness with or without fever
Haemophilus influenzae type b (Hib)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Younger than age 6 weeks	• 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 component[3] including yeast • Pregnancy: PreHevbrio is not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated[4]	• 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 component[3] • *Pregnancy: HPV vaccination not recommended.*	• Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR) Measles, mumps, rubella, and varicella (MMRV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • 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 • For MMRV only: HIV infection of any severity	• 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 • For MMRV only: Personal or family (i.e., sibling or parent) history of seizures of any etiology • If using MMRV, see Varicella/MMRV for additional precautions
Meningococcal ACWY (MenACWY) MenACWY-CRM [Menveo] MenACWY-TT [MenQuadfi]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid— or CRM197—containing vaccine • For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine	• For MenACWY-CRM only: Preterm birth if younger than age 9 months • 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 component[3] • 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 (PCV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or its component[3]	• 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]	• Pregnancy • Moderate or severe acute illness with or without fever
RSV monoclonal antibody (RSV-mAb)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[5]	• Moderate or severe acute illness with or without fever
Respiratory syncytial virus vaccine (RSV)	• 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
Rotavirus (RV) RV1 [Rotarix] RV5 [RotaTeq]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe combined immunodeficiency (SCID) • History of intussusception	• Altered immunocompetence other than SCID • Chronic gastrointestinal disease • RV1 only: Spina bifida or bladder exstrophy • Moderate or severe acute illness with or without fever
Tetanus, diphtheria, and acellular pertussis (Tdap) Tetanus, diphtheria (Td)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For Tdap only: Encephalopathy (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	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid–containing vaccine • 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 • 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 • Moderate or severe acute illness with or without fever
Varicella (VAR) Measles, mumps, rubella, and varicella (MMRV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • 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 • For MMRV only: HIV infection of any severity	• 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 • If using MMRV, see MMR/MMRV for additional precautions

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.
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.
5. Full prescribing information for BEYFORTUS (nirsevimab-alip) www.accessdata.fda.gov/drugsatfda_docs/label/2023/761328s000lbl.pdf.

Addendum Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, 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.

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
	1vCOV–aPS	Novavax COVID–19 Vaccine
Haemophilus influenzae type b vaccine	Hib	ActHIB, Hiberix, PedvaxHIB
Hepatitis A vaccine	HepA	Havrix, Vaqta
Hepatitis A and hepatitis B vaccine	HepA–HepB	Twinrix
Hepatitis B vaccine	HepB	Engerix–B, Heplisav–B, PreHevbrio, Recombivax HB
Human papillomavirus vaccine	HPV	Gardasil 9
Influenza vaccine (inactivated, egg-based)	IIV3	Multiple
	aIIV3	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
Meningococcal serogroups A, C, W, Y vaccine	MenACWY–CRM	Menveo
	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
Mpox vaccine	Mpox	Jynneos
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance
	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 the ACIP or CDC.

11/21/2024

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)**
3. Review vaccine types, dosing frequencies and intervals, and 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) and approved by the Centers for Disease Control and Prevention (www.cdc.gov), American College of Physicians (www.acponline.org), American Academy of Family Physicians (www.aafp.org), American College of Obstetricians and Gynecologists (www.acog.org), American College of Nurse–Midwives (www.midwife.org), American Academy of Physician Associates (www.aapa.org), American Pharmacists Association (www.pharmacist.com), and Society for Healthcare Epidemiology of America (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 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/acip–recs/general–recs/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

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CS310021–E

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

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
COVID–19	1 or more doses of 2024–2025 vaccine (See Notes)			2 or more doses of 2024-2025 vaccine (See Notes)
Influenza inactivated (IIV3, ccIIV3) **Influenza recombinant** (RIV3)	1 dose annually			1 dose annually (HD–IIV3, RIV3, or aIIV3 preferred)
Influenza inactivated (aIIV3; HD–IIV3) **Influenza recombinant** (RIV3)	Solid organ transplant (See Notes)			
Influenza live, attenuated (LAIV3)	1 dose annually			
Respiratory syncytial virus (RSV)	Seasonal administration during pregnancy (See Notes)		60 through 74 years (See Notes)	≥75 years
Tetanus, diphtheria, pertussis (Tdap or Td)	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			
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			For health care personnel (See Notes)
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (See Notes)		2 doses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal (PCV15, PCV20, PCV21, PPSV23)			See Notes	
				See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine			
Hepatitis B (HepB)	2, 3, or 4 doses depending on vaccine or condition			
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication (See Notes for booster recommendations)			
Meningococcal B (MenB)	19 through 23 years	2 or 3 doses depending on vaccine and indication (See Notes for booster recommendations)		
***Haemophilus influenzae* type b** (Hib)	1 or 3 doses depending on indication			
Mpox	2 doses			
Inactivated poliovirus (IPV)	Complete 3-dose series if incompletely vaccinated. Self–report of previous doses acceptable (See Notes)			

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of immunity

Recommended vaccination for adults with an additional risk factor or another indication

Recommended vaccination based on shared clinical decision–making

No Guidance/ Not Applicable

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		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[a]	Diabetes	Health care Personnel[b]
			<15% or <200mm³	≥15% and ≥200mm³							
COVID–19		See Notes									
Influenza inactivated Influenza recombinant		Solid organ transplant (See Notes)	1 dose annually								
LAIV3					1 dose annually if age 19–49 years		1 dose annually if age 19–49 years				
RSV	Seasonal administration (See Notes)	See Notes				See Notes			Liver disease (See Notes)	See Notes	
Tdap or Td	Tdap: 1 dose each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years									
MMR	*										
VAR	*		See Notes								
RZV		See Notes									
HPV	*	3-dose series if indicated									
Pneumococcal											
HepA											
Hep B	See Notes									Age ≥ 60 years	
MenACWY											
MenB											
Hib		HSCT: 3 doses[c]				Asplenia: 1 dose					
Mpox	See Notes				See Notes						See Notes
IPV		Complete 3-dose series if incompletely vaccinated. Self–report of previous doses acceptable (See Notes)									

- Recommended for all adults who lack documentation of vaccination, **OR** lack evidence of immunity
- Not recommended for all adults, but recommended for some adults based on either age **OR** increased risk for or severe outcomes from disease
- Recommended vaccination based on shared clinical decision–making
- Recommended for all adults, and additional doses may be necessary based on medical condition or other indications. See Notes.
- Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction
- Contraindicated or not recommended *Vaccinate after pregnancy, if indicated
- No Guidance/ Not Applicable

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.

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

Routine vaccination

Age 19–64 years

- **Unvaccinated:**
  - 1 dose 2024–25 Moderna or Pfizer-BioNTech
  - 2 doses 2024–25 Novavax at 0, 3–8 weeks
- **Previously vaccinated before 2024–25 vaccine with:**
  - **1 or more doses Moderna or Pfizer-BioNTech:** 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.
  - **1 dose Novavax:** 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.
  - **2 or more doses Novavax:** 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech at least 8 weeks after the most recent dose.
  - **1 or more doses Janssen:** 1 dose 2024–25 Moderna or Novavax or Pfizer-BioNTech.

Age 65 years and older

- **Unvaccinated:** follow recommendations above for unvaccinated persons ages 19–64 years **and** administer dose 2 of 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months).
- **Previously vaccinated before 2024–25 vaccine:** follow recommendations above for previously vaccinated persons ages 19–64 years **and** administer dose 2 of 2024–25 Moderna or Novavax or Pfizer-BioNTech 6 months later (minimum interval 2 months).

Special situations

Persons who are moderately or severely immunocompromised. Use vaccine from the same manufacturer for all doses in the initial vaccination series.

- **Unvaccinated:**
  - 4 doses (**3-dose initial series 2024–25 Moderna** 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.*
  - 4 doses (**3-dose initial series 2024–25 Pfizer-BioNTech** at 0, 3 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.*
  - 3 doses (**2-dose initial series 2024–25 Novavax** 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.*
- **Incomplete initial vaccination series before 2024–25 vaccine:**
  - **Previous vaccination with Moderna**
    - **1 dose Moderna:** 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.*
    - **2 doses Moderna:** 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.*

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.*

***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.). 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.

Unvaccinated persons have never received any COVID-19 vaccine doses. 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. Administer an age-appropriate COVID-19 vaccine product for each dose.

For information about interchangeability of COVID-19 vaccines, see wcms-wp.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#Interchangeability.

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

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.

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 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
    - **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

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 decision–making also apply in special situations**
  - **Immunocompromising conditions, including HIV infection**: complete 3-dose series, even for those who initiate vaccination at age 9 through 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 through 64 years receiving immunosuppressive medications:** HD–IIV3 and aIIV3 are acceptable options. No preference over other age–appropriate IIV3 or RIV3.
  - **Age 65 years or older:** Any one of HD-IIV3, RIV3, or aIIV3 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 persons of childbearing age with no evidence of immunity to rubella:** 1 dose
- **HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm^3 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/mm^3
- **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

Measles, mumps, and rubella vaccination *- continued*

- **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/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 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.

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.

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/rr7203a1.htm.

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Pneumococcal vaccination - *continued*

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

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Respiratory syncytial virus vaccination

Routine vaccination

- **Pregnant persons 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 persons:** 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 persons 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.

Respiratory syncytial virus vaccination - *continued*

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.

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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 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.

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 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.
- **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/mm^3 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/mm^3.
- **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

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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[1]	Precautions[2]
COVID–19 mRNA vaccines [Pfizer–BioNTech, Moderna]	• 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 vaccine[3]; 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 [Novavax]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID–19 vaccine[3]	• Diagnosed non–severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID–19 vaccine[3]; or non–severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax 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
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 component[4] (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 (ccIIV3) [Flucelvax]	• Severe allergic reaction (e.g., anaphylaxis) to any ccIIV of any valency, or to any component[4] of ccIIV3	• 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[4] 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 component[4] (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. 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 Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2025

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 component[3] including yeast • Pregnancy: PreHevbrio is not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated[4]	• 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 component[3] • *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 component[3] • 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 component[3] • 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 component[3] • 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 component[3] • Severe allergic reaction (e.g., anaphylaxis) to any diphtheria–toxoid–containing vaccine or to its vaccine component[3]	• 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]	• Pregnancy • Moderate 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) Tetanus, diphtheria (Td)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For Tdap only: Encephalopathy (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	• Guillain–Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus–toxoid–containing vaccine • 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 component[3] • 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.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. 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.

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.

Screening Checklist for Contraindications to Vaccines for Adults

YOUR NAME _____

DATE OF BIRTH _____/_____/_____
month day year

For patients: The following questions will help us determine which vaccines you may be given today. If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. It just means we need to ask you more questions. If a question is not clear, please ask your healthcare provider to explain it.

	yes	no	don't know
1. Are you sick today?	☐	☐	☐
2. Do you have allergies to medications, food, a vaccine component, or latex?	☐	☐	☐
3. Have you ever had a serious reaction after receiving a vaccine?	☐	☐	☐
4. Do you have any of the following: a long-term health problem with heart, lung, kidney, or metabolic disease (e.g., diabetes), asthma, a blood disorder, no spleen, a cochlear implant, or a spinal fluid leak? Are you on long-term aspirin therapy?	☐	☐	☐
5. Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?	☐	☐	☐
6. Do you have a parent, brother, or sister with an immune system problem?	☐	☐	☐
7. In the past 6 months, have you taken medications that affect your immune system, such as prednisone, other steroids, or anticancer drugs; drugs for the treatment of rheumatoid arthritis, Crohn's disease, or psoriasis; or have you had radiation treatments?	☐	☐	☐
8. Have you had a seizure or a brain or other nervous system problem?	☐	☐	☐
9. Have you ever been diagnosed with a heart condition (myocarditis or pericarditis) or have you had Multisystem Inflammatory Syndrome (MIS-A or MIS-C) after an infection with the virus that causes COVID-19?	☐	☐	☐
10. In the past year, have you received immune (gamma) globulin, blood/blood products, or an antiviral drug?	☐	☐	☐
11. Are you pregnant?	☐	☐	☐
12. Have you received any vaccinations in the past 4 weeks?	☐	☐	☐
13. Have you ever felt dizzy or faint before, during, or after a shot?	☐	☐	☐
14. Are you anxious about getting a shot today?	☐	☐	☐

FORM COMPLETED BY _____ DATE _____

FORM REVIEWED BY _____ DATE _____

Did you bring your immunization record card with you? **yes** ☐ **no** ☐

It is important to have a personal record of your vaccinations. If you don't have a personal record, ask your healthcare provider to give you one. Keep this record in a safe place and bring it with you every time you seek medical care. Make sure your healthcare provider records all your vaccinations on it.

Information for Healthcare Professionals about the Screening Checklist for Contraindications to Vaccines for Adults

Read the information below for help interpreting answers to the screening checklist. To learn even more, consult the references in ***Note*** *below.*

NOTE: For additional details, see CDC's "Adult Immunization Schedule" (www.cdc.gov/vaccines/hcp/imz-schedules/adult-age.html) and *General Best Practice Guidelines for Immunization* sections on "Contraindications and Precautions" (www.cdc.gov/vaccines/hcp/imz-best-practices/altered-immunocompetence.html) and "Altered Immunocompetence" (www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html). For more details on COVID-19 vaccines, see "Use of COVID-19 Vaccines in the United States: Interim Clinical Considerations" at www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html.

1. **Are you sick today?** *[all vaccines]*

   There is no evidence that acute illness reduces vaccine efficacy or safety. However, as a precaution, all vaccines should be delayed until moderate or severe acute illness has improved. Mild illnesses with or without fever (e.g., otitis media, "colds," diarrhea) and antibiotic use are not contraindications to routine vaccination.

2. **Do you have allergies to medications, food, a vaccine ingredient, or latex?** *[all vaccines]*

   Gelatin: If a person has anaphylaxis after eating gelatin, do not give vaccines containing gelatin. **Latex:** An anaphylactic reaction to latex is a contraindication to vaccines with latex as part of the vaccine's packaging (e.g., vial stoppers, prefilled syringe plungers, prefilled syringe caps). For details on latex in vaccine packaging, refer to the package insert (listed at www.fda.gov/vaccines-blood-biologics/vaccines/vaccines-licensed-use-united-states). **COVID-19 vaccine:** History of a severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a COVID-19 vaccine component is a contraindication to use of the same vaccine type. People may receive the alternative COVID-19 vaccine type (either mRNA or protein subunit) if they have a contraindication or an allergy-related precaution to one COVID-19 vaccine type. Allergy-related precautions include history of 1) diagnosed non-severe allergy to a COVID-19 vaccine component; 2) non-severe, immediate (onset less than 4 hours) allergic reaction after a dose of one COVID-19 vaccine type (see **Note**). ***Not contraindications:*** **Eggs:** ACIP and CDC do not consider egg allergy of any severity to be a contraindication or precaution to any egg-based influenza vaccine. **Injection site reaction** (e.g., soreness, redness, delayed-type local-reaction) to a prior dose or vaccine component is not a contraindication to a subsequent dose or vaccine containing that component.

3. **Have you ever had a serious reaction after receiving a vaccine?** *[all vaccines]*
   - Anaphylaxis to a previous vaccine dose or vaccine component is a contraindication for subsequent doses of the vaccine or vaccine component. (See question 2.)
   - Usually, one defers vaccination when a precaution is present unless the benefit outweighs the risk (e.g., during an outbreak).

4. **Do you have any of the following: a long-term health problem with heart, lung, kidney, or metabolic disease (e.g., diabetes), asthma, a blood disorder, no spleen, a cochlear implant, or a spinal fluid leak? Are you on long-term aspirin therapy?** *[MMR, VAR, LAIV]*

   LAIV is not recommended for people with anatomic or functional asplenia, a cochlear implant, or cerebrospinal fluid (CSF) leak. Underlying health conditions that increase the risk of influenza complications such as heart, lung, kidney, or metabolic disease (e.g., diabetes) and asthma are precautions for LAIV. **MMR:** A history of thrombocytopenia or thrombocytopenic purpura is a precaution to MMR. **VAR:** Aspirin use is a precaution to VAR due to the association of aspirin use, wild type varicella infection, and Reye syndrome in children and adolescents.

5. **Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?** *[LAIV, MMR, VAR]*

   Live virus vaccines are usually contraindicated in immunocompromised people, with exceptions. For example, MMR vaccine is recommended and VAR may be considered for adults with CD4+ T-cell counts of greater than or equal to 200 cells/mcL. See **Note**.

6. **Do you have a parent, brother, or sister with an immune system problem?** *[MMR, VAR]*

   MMR or VAR should not be administered to a patient with congenital or hereditary immunodeficiency in a first-degree relative (e.g., parent, sibling) unless the patient's immune competence has been verified clinically or by a laboratory.

7. **In the past 6 months, have you taken medicines that affect your immune system, such as prednisone, other steroids, or anticancer drugs; drugs for the treatment of rheumatoid arthritis, Crohn's disease, or psoriasis; or have you had radiation treatments?** *[LAIV, MMR, VAR]*

   Live virus vaccines should be postponed until chemotherapy or long-term high-dose steroid therapy concludes. See **Note**. Some immune mediator and modulator drugs (especially anti-tumor necrosis factor [TNF] agents) may be immunosuppressive. Avoid live virus vaccines in people taking immunosuppressive drugs. A list of such drugs appears in CDCs Yellow Book at wwwnc.cdc.gov/travel/yellowbook/2024/additional-considerations/immunocompromised-travelers.

8. **Have you had a seizure or a brain or other nervous system problem?** *[influenza, Td/Tdap]*

   Tdap: Tdap is contraindicated in people with a history of encephalopathy within 7 days following DTP/DTaP. An unstable progressive neurologic problem is a precaution to using Tdap. For people with stable neurologic disorders (including seizures) unrelated to vaccination, vaccinate as usual. **A history of Guillain-Barré syndrome (GBS):** 1) **Td/Tdap**: GBS within 6 weeks of a tetanus toxoid-containing vaccine is a precaution; if the decision is made to vaccinate, give Tdap instead of Td; 2) **all influenza vaccines**: GBS within 6 weeks of an influenza vaccine is a precaution; influenza vaccination should generally be avoided unless the benefits outweigh the risks (e.g., for those at high risk for influenza complications).

9. **Have you ever been diagnosed with a heart condition (myocarditis or pericarditis) or have you had Multisystem Inflammatory Syndrome (MIS-A or MIS-C) after an infection with the virus that causes COVID-19?**

   Precautions to COVID-19 vaccination include a history of myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine or a history of Multisystem Inflammatory Syndrome (MIS-C or MIS-A). Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine is a precaution: the patient should generally not receive additional COVID-19 vaccine. A person with a history of myocarditis or pericarditis unrelated to vaccination may receive a COVID-19 vaccine once the condition has completely resolved. A person with a history of MIS-C or MIS-A may be vaccinated if the condition has fully resolved and it has been at least 90 days since diagnosis. Refer to CDC COVID-19 vaccine guidance for additional considerations for myocarditis, pericarditis, and MIS (see **Note**).

10. **In the past year, have you received immune (gamma) globulin, blood/blood products or an antiviral drug?** *[MMR, VAR, LAIV]*

    See **Note** (schedule) for antiviral drug information (VAR, LAIV). See "Timing and Spacing of Immunobiologics" (www.cdc.gov/vaccines/hcp/imz-best-practices/timing-spacing-immunobiologics.html) for intervals between MMR, VAR and certain blood/blood products, or immune globulin.

11. **Are you pregnant?** *[HPV, HepB, IPV, LAIV, MenB, MMR, VAR]*

    Live virus vaccines (e.g., LAIV, MMR, VAR) are contraindicated in pregnancy due to the theoretical risk of virus transmission to the fetus. People who could become pregnant and receive a live virus vaccine should be instructed to avoid pregnancy for 1 month after vaccination. **IPV and MenB** should not be given except to those with an elevated risk of exposure during pregnancy. **HPV** is not recommended during pregnancy.

12. **Have you received any vaccinations in the past 4 weeks?** *[LAIV, MMR, VAR, yellow fever]*

    People given live virus vaccines, such as those listed above, should wait 28 days before receiving another live virus vaccine (wait 30 days for yellow fever vaccine). Inactivated vaccines may be given at the same time or at any spacing interval.

13. **Have you ever felt dizzy or faint before, during, or after a shot?**

    Fainting (syncope) or dizziness is not a contraindication or precaution to vaccination; it may be an anxiety-related response to any injection. CDC recommends vaccine providers consider observing all patients for 15 minutes after vaccination. See Immunize.org's resource on vaccination and syncope at www.immunize.org/catg.d/p4260.pdf.

14. **Are you anxious about getting a shot today?**

    Anxiety can lead to vaccine avoidance. Simple steps can help a patient's anxiety about vaccination. Visit Immunize.org's "Addressing Vaccination Anxiety" clinical resources at www.immunize.org/clinical/topic/addressing-anxiety.

VACCINE ABBREVIATIONS

HepB = Hepatitis B vaccine
HPV = Human papillomavirus vaccine
IIV = Inactivated influenza vaccine
ccIIV = Cell culture inactivated influenza vaccine
IPV = Inactivated poliovirus vaccine
LAIV = Live attenuated influenza vaccine
MenB = Meningococcal B vaccine
MMR = Measles, mumps, and rubella vaccine
RIV = Recombinant influenza vaccine
Td/Tdap = Tetanus, diphtheria, (acellular pertussis) vaccine
VAR = Varicella vaccine

You Must Provide Patients with Vaccine Information Statements (VISs) – It's Federal Law!

What are Vaccine Information Statements (VISs)?

Vaccine Information Statements (VISs) are documents produced by the Centers for Disease Control and Prevention (CDC), in consultation with panels of experts and parents, to properly inform vaccinees (or their parents/legal representatives) about the risks and benefits of each vaccine. VISs are not meant to replace interactions with healthcare providers, who should address any questions or concerns that the vaccinee (or parent/legal representative) may have.

Using VISs is legally required!

Federal law (under the National Childhood Vaccine Injury Act, NCIVA) requires a healthcare professional to provide a copy of the current VIS to an adult patient or to a child's parent/legal representative before vaccinating an adult or child with a dose of the following vaccines: diphtheria, tetanus, pertussis, measles, mumps, rubella, polio, hepatitis A, hepatitis B, *Haemophilus influenzae* type b (Hib), influenza, pneumococcal conjugate, meningococcal, rotavirus, human papillomavirus (HPV), or varicella (chickenpox).

Where to get VISs

All available VISs can be downloaded from the websites of Immunize.org at www.immunize.org/vaccines/vis/about-vis/ or CDC at www.cdc.gov/vaccines/hcp/vis/index.html. Ready-to-copy versions may also be available from your state or local health department.

Translations: You can find VISs in more than 40 languages on the Immunize.org website at www.immunize.org/translations.

To obtain translations of VISs in languages other than English, go to www.immunize.org/translations

According to CDC, the appropriate VIS must be given:

- Prior to the vaccination (and prior to each dose of a multi-dose series);
- Regardless of the age of the vaccinee;
- Regardless of whether the vaccine is given in a public or private healthcare setting.

Top 10 Facts About VISs

FACT 1 It's federal law! You must provide current* VISs to all your patients before vaccinating them.

Federal law requires that VISs must be used for patients of **ALL ages** when administering these vaccines:

- DTaP
- Td and Tdap
- hepatitis A
- hepatitis B
- Hib
- HPV
- influenza (inactivated and live, intranasal)
- MMR and MMRV
- meningococcal (MenACWY, MenB)
- pneumococcal conjugate
- polio
- rotavirus
- varicella (chickenpox)

For the vaccines not covered under NCVIA (i.e., adenovirus, anthrax, COVID-10, dengue, ebola, Japanese encephalitis, pneumococcal polysaccharide, rabies, RSV, smallpox/monkeypox, tick-borne encephalitis, typhoid, yellow fever, and zoster), providers are not required by federal law to use VISs unless they have been purchased under CDC contract. However, CDC recommends that VISs be used whenever these vaccines are given. When administering a vaccine under conditions of an emergency use authorization (EUA), an EUA fact sheet must be used (see www.cdc.gov/vaccines/hcp/eua/index.html).

*Federal law allows up to 6 months for a new VIS to be used.

FACT 2 VISs can be given to patients in a variety of ways.

In most medical settings, VISs are provided to patients (or their parents/legal representatives) in paper form. However, VISs also may be provided using electronic media. Regardless of the format

CONTINUED ON THE NEXT PAGE ▶

As of October 17, 2024, the most recent versions of the VISs are:

Adenovirus	1/8/20
Anthrax	1/8/20
COVID-19	10/17/24
Cholera	10/17/24
Dengue	12/17/21
DTaP	8/6/21
Ebola	6/30/22
Hepatitis A	10/15/21
Hepatitis B	5/12/23
Hib	8/6/21
HPV	8/6/21
Influenza	8/6/21
Japanese enceph	8/15/19
MenACWY	8/6/21
MenB	8/6/21
MMR	8/6/21
MMRV	8/6/21
Multi-vaccine	7/24/23
PCV	5/12/23
PPSV23	10/30/19
Polio	8/6/21
Rabies	6/2/22
RSV antibody	9/25/23
RSV vaccine	10/17/24
Rotavirus	10/15/21
Smallpox/monkeypox	11/14/22
Td	8/6/21
Tdap	8/6/21
Tick-borne encephalitis	12/7/23
Typhoid	10/30/19
Varicella	8/6/21
Yellow fever	4/1/20
Zoster	2/4/22

used, the goal is to provide a current VIS just prior to vaccination. (For information on special circumstances involving vaccination of a child when a parent/legal representative is not available at the time of vaccination, see CDC's *VIS Frequently Asked Questions* at www.cdc.gov/vaccines/hcp/about-vis/faq.html)

Prior to vaccination, VIS may be:

- Provided as a paper copy
- Offered on a permanent, laminated office copy
- Downloaded by the vaccinee (parent/legal representative) to a smartphone or other electronic device (VISs have been specially formatted for this purpose)
- Made available to be read before the office visit, e.g., by giving the patient or parent a copy to take home during a prior visit, or telling them how to download or view a copy from the Internet. These patients must still be offered a copy in one of the formats described previously to read during the immunization visit, as a reminder.

Regardless of the way the patient is given the VIS to read, providers must still offer a copy (which can be an electronic copy) of each appropriate VIS to take home following the vaccination. However, the vaccinee may decline.

FACT 3 VISs are required in both public and private sector healthcare settings.

Federal law requires the use of VISs in both public and private sector settings, regardless of the source of payment for the vaccine.

FACT 4 You must provide a current VIS *before* a vaccine is administered to the patient.

A VIS provides information about the disease and the vaccine and must be given to the patient **before** a vaccine is administered. It is also acceptable to hand out the VIS well before administering vaccines (e.g., at a prenatal visit or at birth for vaccines an infant will receive during infancy), as long as you still provide a current VIS right before administering vaccines.

FACT 5 You must provide a current VIS for *each* dose of vaccine you administer.

The most current VIS must be provided before **each dose** of vaccine is given, including vaccines given as a series of doses. For example, if 5 doses of a single vaccine are required (e.g., DTaP), the patient (parent/legal representative) must have the opportunity to read the information on the VIS before each dose is given.

FACT 6 You must provide VISs whenever you administer combination vaccines.

If you administer a combination vaccine that does not have a stand-alone VIS (e.g., Kinrix, Quadracel, Pediarix, Pentacel, Twinrix, Vaxelis) you should provide the patient with individual VISs for the component vaccines, or use the Multi-Vaccine VIS.

The Multi-Vaccine VIS may be used in place of the individual VISs for DTaP, Hib, hepatitis B, polio, and pneumococcal when two or more of these vaccines are administered during the same visit. It may be used for infants as well as children through 6 years of age. The Multi-Vaccine VIS should not be used for adolescents or adults.

FACT 7 VISs should be given in a language / format that the recipient can understand, whenever possible.

For patients who don't read or speak English, the law requires that providers ensure all patients (parent/legal representatives) receive a VIS, regardless of their ability to read English. To obtain VISs in more than 40 languages, visit the Immunize.org website at www.immunize.org/vis. Providers can supplement VISs with visual presentations or oral explanations as needed.

FACT 8 Federal law does not require signed consent in order for a person to be vaccinated.

Signed consent is not required by federal law for vaccination (although some states may require it).

FACT 9 To verify that a VIS was given, providers must record in the patient's medical record (or permanent office log or file) the following information:

- The edition date of the VIS (found on the back at the right bottom corner)
- The date the VIS is provided (i.e., the date of the visit when the vaccine is administered)

In addition, providers must record:

- The office address and name and title of the person who administers the vaccine
- The date the vaccine is administered
- The vaccine manufacturer and lot number

FACT 10 VISs should not be altered before giving them to patients, but you can add some information.

Providers should not change a VIS or write their own VISs. However, it is permissible to add a practice's name, address, and contact information to an existing VIS.

Additional resources on VISs and their use are available from the following organizations:

Immunize.org

- *VIS general information and translations in more than 40 languages:* www.immunize.org/vaccines/vis/about-vis/
- *Current Dates of Vaccine Information Statements:* www.immunize.org/catg.d/p2029.pdf

Centers for Disease Control and Prevention

- *VIS website:* www.cdc.gov/vaccines/hcp/vis
- About *VISs:* www.cdc.gov/vaccines/hcp/about-vis/index.html
- *VIS FAQs:* www.cdc.gov/vaccines/hcp/about-vis/faq.html

INSTRUCTIONS FOR USE

Vaccine Information Statements

Required Use

1. Provide a Vaccine Information Statement (VIS) when a vaccination is given.
As required under the National Childhood Vaccine Injury Act (42 U.S.C. §300aa-26), all health care providers in the United States who administer, to any child or adult, any of the following vaccines — diphtheria, tetanus, pertussis, measles, mumps, rubella, polio, hepatitis A, hepatitis B, *Haemophilus influenzae* type b (Hib), influenza, pneumococcal conjugate, meningococcal, rotavirus, human papillomavirus (HPV), or varicella (chickenpox) — shall, prior to administration of each dose of the vaccine, provide a copy to keep of the relevant current edition vaccine information materials that have been produced by the Centers for Disease Control and Prevention (CDC):

- to the parent or legal representative[1] of any child to whom the provider intends to administer such vaccine,
  OR
- to any adult[2] to whom the provider intends to administer such vaccine.

If there is not a single VIS for a combination vaccine, use the VISs for all component vaccines.

VISs should be supplemented with visual presentations or oral explanations as appropriate.

2. Record information for each VIS provided.
Health care providers shall make a notation in each patient's permanent medical record at the time vaccine information materials are provided, indicating:

- (1) the edition date of the Vaccine Information Statement distributed, and
- (2) the date the VIS was provided.

This recordkeeping requirement supplements the requirement of 42 U.S.C. §300aa-25 that all health care providers administering these vaccines must record in the patient's permanent medical record (or in a permanent office log):

- (3) the name, address and title of the individual who administers the vaccine,
- (4) the date of administration, and
- (5) the vaccine manufacturer and lot number of the vaccine used.

[1] "Legal representative" is defined as a parent or other individual who is qualified under State law to consent to the immunization of a minor child or incompetent adult.

[2] In the case of an incompetent adult, relevant VISs shall be provided to the individual's legal representative. If the incompetent adult is living in a long-term care facility, all relevant VISs may be provided at the time of admission, or at the time of consent if later than admission, rather than prior to each vaccination.

Applicability of State Law

Health care providers should consult their legal counsel to determine additional State requirements pertaining to immunization. The Federal requirement to provide the vaccine information materials supplements any applicable State laws.

Availability of Copies

Copies are available in English and many other languages from CDC's website at **www.cdc.gov/vaccines/pubs/vis**. Single camera-ready copies may also be available from State health departments.

Current VIS Editions

DTaP (Diphtheria, Tetanus, Pertussis): 8/6/21
Hepatitis A: 10/15/21
Hepatitis B†: 5/12/23
Hib: 8/6/21
HPV (Human Papillomavirus): 8/6/21
Influenza (inactivated): 8/6/21
Influenza (live): 8/6/21
MMR: 8/6/21
MMRV: 8/6/21
Meningococcal ACWY: 8/6/21
Meningococcal B: 8/6/21
Pneumococcal (PCV)†: 5/12/23
Polio: 8/6/21
Rotavirus: 10/15/21
Td: 8/6/21
Tdap: 8/6/21
Varicella: 8/6/21
Multi-Vaccine*†: 7/24/23

*An optional alternative when two or more routine childhood vaccines (i.e., DTaP, hepatitis B, Hib, pneumococcal, or polio are administered at the same visit.

†Interim

42 U.S.C. § 300aa-26

7/24/2023

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

MATERNAL AND CHILD HEALTH

Huron County Public Health

INFORMATION FOR NEW PARENTS

Services Offered By Huron County Public Health

Birth Certificates

HCPH issues birth certificates for anyone born in the State of Ohio from December 1908 to the present. The cost of a certified copy is $25.00 (cash, check, or money order). Debit cards or credit cards are accepted with an additional fee. Individuals have the option to order birth certificates online at https://huronoh.permitium.com/rod or call *419-668-1652 ext. 244.*

Immunizations

HCPH offers vaccines for all ages, beginning at 6 weeks. No child is turned away for Vaccines for Children (VFC) vaccines if their family is unable to pay for the shots. Private insurance and Medicaid are accepted. For more information, visit www.HuronCoHealth.com/immunizations or call *419-668-1652 ext. 241.*

Reproductive Health

Reproductive health services, including birth control, pregnancy tests, STD testing/treatment and education are available. Long-acting, reversible contraceptives available. For more information visit www.HuronCoHealth.com/reproductive-health or call *419-668-1652 ext. 241.*

Car Seat Safety

HCPH has certified Child Passenger Safety Technicians to help you with any questions you have about car seat safety. HCPH offers child restraint safety checks by appointment and distributes infant and child car seats to eligible Huron County families through the Ohio Buckles Buckeyes program. For more information visit www.HuronCoHealth.com/car-seat-safety or call *419-668-1652 ext. 241.*

Baby Sleep Safe Program/ Cribs for Kids

HCPH offers education to families about the ABC's of safe sleep. WIC-eligible families lacking a safe sleep environment for their infant, or expectant mothers who are at least 32 weeks pregnant should contact HCPH to participate in the Baby Sleep Safe Program and receive a free portable crib. For more information visit www.HuronCoHealth.com/baby-sleep-safe or call *419-668-1652 ext.241*.

HURON COUNTY PUBLIC HEALTH

BABY SLEEP SAFE

> Huron County Public Health's Baby Sleep Safe program is currently funded through donations and grant funding awarded by the Ohio Department of Health.

WHO QUALIFIES

Huron County and Bellevue City families who benefit from or are eligible for the WIC program, lack a safe sleep environment for their child, and have a child under the age of one or are at least 32 weeks pregnant qualify for the Baby Sleep Safe program.

SAFE SLEEP KITS

Those entered into the program will receive a free safe sleep kit, which, in addition to a portable crib, may include a fitted sheet, a sleep sack, and a pacifier, as well as safe sleep education.

MAKE AN APPOINTMENT

This program is by appointment only. Please call 419-668-1652 Ext. 241 to schedule an appointment.
Normal business hours are Monday 9:00 a.m. to 4:00 p.m. & Tuesday through Friday 8:00 a.m. to 4:00 p.m.
Please bring your insurance card to your appointment.

MORE INFORMATION

For more information about Huron County Public Health's Baby Sleep Safe Program and safe sleep education please visit www.HuronCoHealth.com/baby-sleep-safe.

This work is funded either in whole or in part by a grant awarded by the Ohio Department of Health, Bureau of Maternal, Child and Family Health, Maternal Child Health Program's Cribs for Kids® Safe Sleep Program and as a sub-award of a grant issued by Health Resources and Services Administration (HRSA) under the Maternal Child Health Block Grant, grand award number B04MC26688, and CFDA number 93.994 and Am. Sub. H.B.64

Updated: 1/10/2025

Huron County Public Health

HCPH has certified car seat technicians that can provide car seat checks for Huron County residents. HCPH also distributes car seats to eligible families.

Car Seat Safety

CHILD PASSENGER SAFETY PROGRAM

Huron County Public Health distributes infant and child car seats to eligible Huron County families through generous donations. Designed for low-income families in need of safety seats for their children, the car seat instruction, distribution, and education service can help families who qualify by providing child passenger safety seats for children from birth to 100 pounds.

WHO QUALIFIES

Huron County families who benefit from or are eligible for the WIC program or Medicaid

WHAT TO BRING

- Your child
- Car seat (if we aren't providing)
- Car seat manual
- Your vehicle
- Vehicle manual
- Health Insurance Card

WHAT HCPH PROVIDES

- Certified child passenger safety technicians
- Car Seat (if eligible), provided through Ohio Buckles Buckeyes
- Instructions on how to install your new car seat
- Inspection to make sure car seat is safe and proper fit

How Do I Make An Appointment?

Call 419-668-1652 ext. 241

Office Hours

Monday
9:00 a.m.- 4:00 p.m.
Tuesday
8:00 a.m.- 4:00 p.m.
Wednesday
8:00 a.m.- 4:00 p.m.
Thursday
8:00 a.m.- 4:00 p.m.
Friday
8:00 a.m.- 4:00 p.m.

Enroll in HCPH Mailing List
Receive updates, newsletters, and alerts!

http://eepurl.com/ckF5Ds

CHILDREN WITH MEDICAL HANDICAPS (CMH)

WHAT IS CMH?

CMH is a financial assistance program funded by a state and county partnership, for families with children with special health care needs. CMH provides financial services to rule out a handicapping condition, determine a diagnosis, or establish a plan of treatment for a child already diagnosed with a medical condition. There is no financial eligibility for the diagnostic program. For those diagnosed with an eligible condition, the program offers the potential for a treatment program.

HOW HURON COUNTY PUBLIC HEALTH CAN HELP

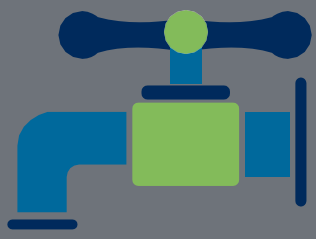
Huron County Public Health nurses facilitate the program, assisting the family with an application; information on CMH approved providers and case management for those approved for the program. Public health nurses can be an important resource for families who may be working with many agencies and providers.

For more information about the program or to schedule an appointment contact Huron County Public Health at 419-668-1652 Ext. 241.

Huron County Public Health

"Lead is a toxic material whose widespread use has caused environmental contamination and health problems in many parts of the world."
World Health Organization

Lead Services



HCPH SERVICES

Huron County Public Health (HCPH) offers blood lead level testing and water testing services to the public.

How Do I Make An Appointment?

Call 419-668-1652

BLOOD LEAD LEVEL TESTING

Lead poisoning is caused by breathing or swallowing lead. There are many sources of lead in our everyday environments, including paint in homes built before 1978, water pumped through leaded pipes, and various other sources. Lead poisoning can cause serious health issues, especially in children. A lead test is the only way to know if you or your child has lead poisoning. To make an appointment for a blood lead test with HCPH, call 419-668-1652 Ext. 241. For more information and safety tips for your home, visit www.HuronCoHealth.com/Lead

OFFICE HOURS

Monday
9:00 a.m.- 4:00 p.m.
Tuesday
8:00 a.m.- 4:00 p.m.
Wednesday
8:00 a.m.- 4:00 p.m.
Thursday
8:00 a.m.- 4:00 p.m.
Friday
8:00 a.m.- 4:00 p.m.

WATER TESTING

HCPH offers water testing. If you are concerned that your homes drinking water may have high levels of lead, complete and return a Water Sample Request Form, available online at www.HuronCoHealth.com under forms. For more information about water testing call 419-668-1652 Ext, 239. For more information about lead in drinking water, visit http://bit.lyDrinkingWater_Lead

Huron County Public Health

Prevent. Promote. Protect.

Reporting High Blood Levels

For blood lead levels ≥ 5 µg/dL in children, contact Huron County Public Health's Nursing Division:

Fax: (419) 663-1809
Phone: (419) 668-1652 Ext. 241

Refer to "Blood Testing Requirements" and "Medical Management Recommendations" in this desk reference for additional actions including follow-up testing and additional referrals.

WIC (In Norwalk): (419) 668-6855
HURON COUNTY CMH: (419) 668-1652
ODH CHILDHOOD LEAD POISONING PREVENTION: (614) 466-5332

Blood Lead Testing Requirements

For Ohio Children less than 6 Years of Age

There is no safe level of lead in the blood.

- All capillary (finger/heel stick) test results ≥ 3.5 µg/dL must be confirmed by venous draw. Point of care instruments such as the LeadCare® II cannot be used to confirm an elevated blood lead level, even if the sample is collected by venipuncture.
- Any confirmed level of lead in the blood is a reliable indicator that the child has been exposed to lead.
- All blood lead test results, by law, are required to be reported to ODH by the analyzing laboratory.
- The Ohio Healthy Homes and Lead Poisoning Prevention Program will respond accordingly to all blood lead levels of 3.5 µg/dL or greater.

If the family answers "Yes" or "Do not know" to ANY of the questions below then TEST—IT'S OHIO LAW! • **TEST at ages 1 and 2 years.** • **TEST between ages 3 and 6 years if the child has no test history.** **If the family answers "No" to all questions, provide prevention guidance and follow up at the next visit.**	**Yes**	**Do Not Know**	**No**
1. Is the child on Medicaid?	☐	☐	☐
2. Does the child live in a high risk ZIP Code? (See list on back of this form.)	☐	☐	☐
3. Does the child live in or regularly visit a home, child care facility or school built before 1950?	☐	☐	☐
4. Does the child live in or regularly visit a home, child care facility or school built before 1978 that has deteriorated paint?	☐	☐	☐
5. Does the child live in or regularly visit a home built before 1978 with recent ongoing or planned renovation/remodeling?	☐	☐	☐
6. Does the child have a sibling or playmate that has or did have lead poisoning?	☐	☐	☐
7. Does the child frequently come in contact with an adult who has a hobby or works with lead? Examples are construction, welding, pottery, painting and casting ammunition.	☐	☐	☐
8. Does the child live near an active or former lead smelter, battery recycling plant or other industry known to generate airborne lead dust?	☐	☐	☐

Revised 10/2023

Ohio Department of Health
Ohio Healthy Homes and Lead Poisoning Prevention Program www.odh.ohio.gov

Ohio Department of Health
Ohio Healthy Homes Program

Ohio High Risk Zip Codes Requiring Blood Lead Testing

for Ohio Children less than 6 Years of Age

Ohio Healthy Homes and Lead Poisoning Prevention Program

There is no safe level of lead in the blood.

Adams County
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Allen County
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Ashland County
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Ashtabula County
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Athens County
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Auglaize County
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Belmont County
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Butler County
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Carroll County
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Champaign County
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Clermont County
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Clinton County
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Columbiana County
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Crawford County
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Van Wert County
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The Targeted Testing Model used to determine the high risk ZIP Codes was developed by Cincinnati Children's Hospital Medical Center. Five-Year 2020 American Community Survey data, Department of Housing and Urban Development Deteriorated Paint Index, and 2015-2023 blood lead testing data were used to identify high-risk census tracts, which were then overlaid with ZIP code boundaries. Any ZIP code partially/fully containing an identified high-risk census tract is considered to be at high risk. A high-risk census tract was considered to be any census tract in which the predicted or observed elevated blood lead testing rate (≥3.5ug/dL) was 6.35% or greater. Eight predictive variables were included in the final model describing: housing environment, socioeconomic factors, demographic characteristics, housing density, and population density.

Ohio Department of Health
Ohio Healthy Homes Program

Department of Health
Ohio Healthy Homes and Lead Poisoning Prevention Program

Medical Management Recommendations
for Ohio Children Receiving Blood Lead Tests

THERE IS NO SAFE LEVEL OF LEAD IN THE BLOOD.

- All capillary (finger/heel stick) test results ≥ 3.5µg/dL must be confirmed by venous draw by the schedule below. Point of care instruments such as the LeadCare® II **cannot** be used to confirm an elevated blood lead level, even if the sample is collected by venipuncture.
- Any confirmed level of lead in the blood is a reliable indicator that the child has been exposed to lead.
- Under Ohio law, all blood lead test results, are required to be reported to the Ohio Department of Health (ODH) by the analyzing laboratory.
- The ODH Healthy Homes and Lead Poisoning Prevention Program will take appropriate action regarding all blood lead levels of 3.5µg/dL or greater.

Blood Lead Level (BLL):	Confirm using Venous Blood within:	Medical Management Recommendations for BLL:	Venous Retest Intervals after Recommended Actions:

<3.5 µg/dl	Not required	• Anticipatory guidance about common sources of lead exposure and how to prevent exposure.
		  o Consider retesting if the child moves to a different home, daycare, school, etc., that was built before 1978.
		• Routine assessment of developmental milestones and nutritional status with a focus on iron and calcium intake.
		• Follow-up blood lead testing at recommended intervals based on child's age. Retest at age 2 if first test was at age 1.
		  o Ohio law requires that all Medicaid-enrolled children be tested at ages 12 and 24 months, or at age 24–72 months if they have not previously been screened.
		  o For children not enrolled in Medicaid, Ohio law requires testing for children living in high-risk ZIP codes and with other risk factors (see "Blood Lead Testing Requirements For Ohio Children less than 6 Years of Age" for more information).
			• See Medical Management recommendations.

3.5-9 µg/dl	1-3 months	**In addition to medical management actions listed above:** • Provide lead education regarding: potential environmental sources of lead exposure, effect of diet on exposure, potential health effects, and hazards associated with renovating pre-1978 homes. • Complete environmental exposure history to identify potential sources of lead. • Complete child history and physical exam. • Assess iron status. Also consider status of hemoglobin or hematocrit. Children with low iron levels are more likely to have high blood lead levels. Follow AAP guidelines for prevention of iron deficiency. • Nutritional counseling related to calcium, vitamin D, iron and vitamin C intake and refer to supportive services, as needed (e.g., Special Supplemental Nutrition Program for Women, Infants and Children (WIC), etc.). • Children younger than 3 years of age with a confirmed blood lead level of 5 µg/dL or greater are automatically eligible for Early Intervention services. Refer children with lower levels to the Ohio Early Intervention program if a potential delay in development has been identified or is suspected.	• Every 3 months for first 2-4 tests. • If level is decreasing, test every 6-9 months until BLLs drop to below 3.5 µg/dL. • See Important Note below.
10-19 µg/dl	Within 1 month		• Early follow up testing in 1-3 months (2-4 tests after identification). • If level is decreasing, test every 3-6 months until BLLs drop to below 3.5 µg/dL. • See Important Note below.

Department of Health
Ohio Healthy Homes and Lead Poisoning Prevention Program

Medical Management Recommendations
for Ohio Children Receiving Blood Lead Tests

20-44 µg/dl	Within 2 weeks	• Follow recommendations for BLL 3.5-19 µg/dL as described above. • Complete history and physical exam assessing for signs and symptoms related to lead. • Obtain an abdominal X-ray to evaluate for radiopaque foreign bodies; initiate bowel decontamination if indicated. • Contact a Pediatric Environmental Health Specialty Unit or Poison Control Center for guidance.	• Early follow up testing in 1-3 months (2-4 tests after identification). • If level is decreasing, test every 1-3 months until BLLs drop to below 3.5 µg/dL. • See Important Note below.
≥ 45 µg/dl	Within 48 hours	• Follow recommendations for BLL 20-44 µg/dL as described above. • Confirm results by venous blood sample immediately. A venous specimen will ensure therapy is based on current and reliable information. • Lab work for hemoglobin or hematocrit and free erythrocyte protoporphyrin are indicated. • Obtain a complete blood count, Blood urea nitrogen, Creatinine, Liver transaminase enzyme levels, and urinalysis in anticipation of chelation therapy. • Immediately remove child from exposure source (chelation could have negative effects if not moved to lead safe environment). • If a lead-safe environment cannot be assured or if chelation therapy is being considered in consultation with a Pediatric Environmental Health Specialty Unit or Poison Control Center, admit the patient to a hospital. • Contact a Pediatric Environmental Health Specialty Unit or Poison Control Center for assistance.	• Test as soon as possible. • Consult with an expert in Pediatric Environmental Health Specialty Unit or Poison Control Center. • See Important Note below.

Important Note:

- Frequency of testing may depend on available information such as source identified, season, other testing conducted and clinical judgement.
- If you have questions regarding frequency of testing, follow-up, or clinical management, please contact a Pediatric Environmental Health Specialty Unit or Poison Control Center (see below).

Ohio Healthy Homes and Lead Poisoning Prevention Program: 1-877-LEAD-SAFE

Pediatric Environmental Health Specialty Unit: 513- 803-3688
Medicaid Provider Hotline: 1-800-686-1516
Women, Infants and Children (WIC): 614-644-8571
Children with Medical Handicaps (CMH): 614-644-1700
Ohio Early Intervention Services: 1-800-755-4769
Poison Control Center: 1-800-222-1222

Ohio Department of Health
Ohio Healthy Homes and Lead Poisoning Prevention Program
www.odh.ohio.gov

ANIMAL BITE REPORTING FORMS

Huron County Public Health

Reporting Animal Bites and Rabies

By law, all animal bites must be reported to the Environmental Health Division of the health department. Please complete and fax the Rabies Possible Exposure Report to:

Fax: 567-224-3201

Phone: 419-668-1652 ext. 239

Human Rabies are <u>Class A</u> Reportable Diseases.

By law, confirmed cases, suspect cases, and positive laboratory tests for rabies in humans must be reported immediately by telephone.

Business Hours Phone: 419-668-1652 ext. 269

After Hours: 1-800-734-4866.

For more information on communicable disease reporting requirements, see the first section of this Desk Reference: Communicable Disease Reporting.

Huron County Public Health

28 Executive Drive, Norwalk, OH 44857 | P: 419-668-1652 | environmental@huroncohealth.com | F: 567-244-3201

Rabies Possible Exposure Report

Ohio laws and rules require mandatory reporting of possible human rabies exposure to the local health department in the jurisdiction in which the exposure occurred. If you are aware of a possible exposure within our county, please complete the form with *as much information as possible* and fax, email or call the Environmental Division with the following information.

Incident Information:

Date of Incident: _____ Date of Report: _____

Address of Incident: _____ City: _____

Details of Incident: _____

Reported by (Name): _____ Agency: _____

Did victim see a physician: ☐ Yes ☐ No ☐ Unknown Did victim receive post exposure vaccine? ☐ Yes ☐ No

Details of Injury: ☐ Bite exposure ☐ Scratch exposure ☐ Multiple exposures ☐ Other

Additional Information:

Animal Species: ☐ Dog ☐ Cat ☐ Raccoon ☐ Bat ☐ Other: _____

Animal Name: _____ Color: _____

Breed: _____ Age: _____ Sex: ☐ Male ☐ Female

Animal Species: ☐ Owned ☐ Stray ☐ Wild ☐ Unknown

Animal Owner Information:

Owner Name: _____ Phone: _____ Owner SS#/DOB _____

Owner Address: _____

Owner City: _____ Owner State: _____ Owner Zip: _____

Victim Information: (*Required Information)*

Victim Name: _____ Home Phone: _____

Victim Address: _____ Cell Phone: _____

Is Victim a Minor? ☐ No ☐ Yes *If Yes, Complete the following:*

Parent Name: _____ Cell Phone: _____

If different than victim information above:

Parent Address: _____

BIRTH & DEATH CERTIFICATES

Huron County Public Health

Vital Statistics
Birth & Death Certificates

419-668-1652 ext. 244

Huron County Public Health has birth certificates for anyone who was born in the State of Ohio from December 1908 to present. Death Certificates can only be obtained from the local health department in the county where the individual passed away. The fee for a certified birth or death certificate is $25.00 per copy.

Huron County Public Health currently maintains death certificates for individuals deceased in Huron County and the City of Bellevue.

Birth Certificates can be obtained for anyone born in the state of Ohio.

Visit www.HuronCoHealth.com/vital-records for more information and to download a request form.

Obtaining Birth & Death Records in Huron County

The cost of a certified copy is $25.00 (Cash, Check or Money Order). Debit cards or credit cards are accepted with an additional fee. Copies can be obtained via online ordering, walk-in/same day service, or mail-in request.

Online Ordering

Visit https://huronoh.permitium.com/rod or scan the QR codes below to access certified copies of birth or death certificates.

birth certificates

death certificates

Walk-In

Visit Huron County Public Health's Vital Statistics Division at

Huron County Public Health
28 Executive Drive
Norwalk, OH 44857

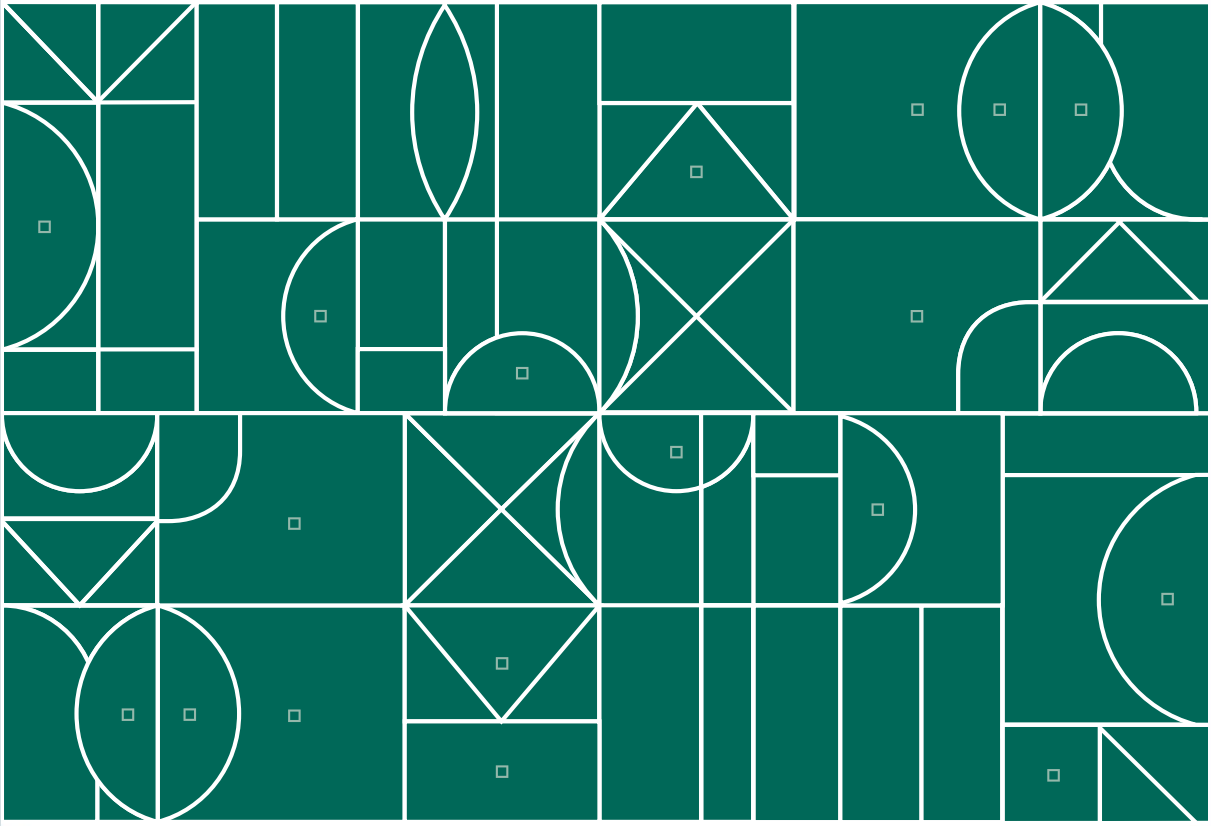
Mail-In Request

For requests by mail: Mail in a completed request form and appropriate fee amount (listed on forms found in link above).

NATIONAL CENTER FOR HEALTH STATISTICS
National Vital Statistics System

Physician's Handbook on Medical Certification of Death

2023 Revision



Centers for Disease Control and Prevention
National Center for Health Statistics

STATE MEDICAL BOARD OF OHIO – POLICY STATEMENT
Regarding the Signing of Death Certificates by the Attending Physician

June 10, 2020

This statement should not be construed as new policy; rather it is an attempt to clarify existing law. Such clarification is intended for the benefit of practitioners and the public as a way to promote better understanding of the laws governing the practice of medicine and regulating the signing of death certificates.

The State Medical Board of Ohio has received numerous inquiries concerning the signing of death certificates by attending physicians. This document clarifies the meaning of "attending physician" for purposes of determining who must sign a death certificate for a person who died under natural circumstances.[1]

Pursuant to Section 3705.16(C), Ohio Revised Code (see http://codes.ohio.gov/orc/3705.16v1), when an individual dies under natural causes the attending physician is to sign the death certificate within forty-eight hours after the death. The language of Section 3705.16(C), Ohio Revised Code, is as follows:

> The funeral director or other person in charge of the final disposition of the remains shall present the death or fetal death certificate to the *attending physician of the decedent*, the coroner, or the medical examiner, as appropriate for certification of the cause of death. …. *A physician other than the coroner in the county in which a death or fetal death occurs, or a deputy coroner, medical examiner, or deputy medical examiner serving in an equivalent capacity, may certify only those deaths that occur under natural circumstances.*
>
> *The medical certificate of death shall be completed and signed by the physician who attended the decedent or by the coroner or medical examiner, as appropriate, within forty-eight hours after the death or fetal death.* …
>
> (Emphasis added to facilitate understanding)

Both "physician" and "attending physician" are defined in Section 3705.01, Ohio Revised Code (see http://codes.ohio.gov/orc/3705.01v1) as follows:

> (D) "Physician" means a person licensed pursuant to Chapter 4731. of the Revised Code to practice medicine and surgery or osteopathic medicine and surgery.
>
> (E) "Attending physician" means the physician in charge of the patient's care for the illness or condition that resulted in death.

By signing a death certificate, the physician is giving a medical opinion as to the cause of death, which is the final act of caring for the patient.[2] While the attending physician is the physician who was in charge of the patient's care for the illness or condition that resulted in death, there is no requirement that the attending physician be present at the death. The attending physician is expected to use medical training, knowledge of medicine, available medical history, symptoms, diagnostic tests, and/or autopsy results to render an opinion on the cause of death.[3] "Physicians' Handbook on Medical Certification of Death," U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2003 Revision, is available at https://www.cdc.gov/nchs/data/misc/hb_cod.pdf

FREQUENTLY ASKED QUESTIONS

1. May a physician in a graduate medical education program sign a death certificate?

a. No, if the physician holds a training certificate.

b. Yes, if the physician is a fully licensed Ohio physician.

The physician who holds a training certificate is only authorized to render care under the supervision of an attending physician as part of a training program.[4] In contrast, the attending physician is a fully licensed physician. Although the training certificate holder renders medical care directly to a patient, the attending physician is responsible for the patient and in charge of the patient's care. In name and practice, the physician supervising the training certificate holder is the attending physician. Accordingly, upon the death of the patient, the training certificate holder is not the physician in charge of the patient's care for the illness or condition that resulted in death and is not the appropriate physician to sign the death certificate.

2. Who is the attending physician for a patient in a long-term care facility?

The attending physician for a patient in a long-term care facility may vary according to arrangements. The physician who provided medical care to the patient before admission to the facility may continue as the patient's physician of record. In contrast, the patient's care may have been transferred to the facility's medical director. Whatever the wishes of the patient or guardian and physician, the records maintained by the facility should clearly indicate the name and contact information of the patient's attending physician.

A physician who has been serving as the attending physician for a patient in a long-term care facility who wishes to terminate the physician/patient relationship must comply with Rule 4731-27-01(A), Ohio Administrative Code. The requirements include written notice sent by certified mail to the patient or guardian stating that the relationship is terminated, although emergency treatment and access to services will be provided for up to 30 days. The facility should also be notified of the termination of the physician/patient relationship so that accurate information will be on file.

3. What happens in the event the attending physician has not recently seen the decedent?

By signing a death certificate, the physician is giving a medical opinion as to the cause of death, which is the final act of caring for the patient. An attending physician who has not seen the patient for a period of time should apply medical training, knowledge of medicine, available medical history, symptoms, diagnostic tests and/or autopsy results to render a medical opinion on the cause of death; qualify the etiology by use of words such as "probable" or "presumed" or,

as a last resort, state the cause of death as “unknown,” “undetermined,” or “unspecified.”[5] Information on completing the cause of death portion of the death certificate for Covid19 may be obtained from the Centers for Disease Control and Prevention at:

https://www.cdc.gov/nchs/covid19/coding-and-reporting.htm

Endnotes:

[1] The county coroner must be called when any person dies as a result of criminal or other violent means, by casualty, by suicide, or in any suspicious or unusual manner, when any person, including a child under two years of age, dies suddenly when in apparent good health, or when any mentally retarded person or developmentally disabled person dies regardless of the circumstances. See Section 313.12, Ohio Revised Code.

[2] “Physicians’ Handbook on Medical Certification of Death”, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2003 Revision, pages 4-5.

[3] Ibid, page 7.

[4] Section 4731.291(C), ORC, provides: The holder of a valid training certificate shall be entitled to perform such acts as may be prescribed by or incidental to the holder's internship, residency, or clinical fellowship program, but the holder shall not be entitled otherwise to engage in the practice of medicine and surgery or osteopathic medicine and surgery in this state. The holder shall limit activities under the certificate to the programs of the hospitals or facilities for which the training certificate is issued. The holder shall train only under the supervision of the physicians responsible for supervision as part of the internship, residency, or clinical fellowship program. A training certificate may be revoked by the board upon proof, satisfactory to the board, that the holder thereof has engaged in practice in this state outside the scope of the internship, residency, or clinical fellowship program for which the training certificate has been issued, or upon proof, satisfactory to the board, that the holder thereof has engaged in unethical conduct or that there are grounds for action against the holder under section 4731.22 of the Revised Code…

[5] “Physicians’ Handbook on Medical Certification of Death”, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2003 Revision, page 33.

Approved June 10, 2020

APPENDIX E ABBREVIATIONS

If this ***TERM*** is on a certificate …… key this ***ABBREVIATION***

Abdominal aortic aneurysm	AAA
Above Knee Amputation	AKA
Acquired Immunodeficiency Syndrome.	AIDS
Acquired Immune Deficiency Syndrome	
Acquired Immunity Deficiency Syndrome	
Acute Myocardial Infarction	AMI
Acute Renal Failure	ARENFA
Adenocarcinoma	ACA
Adult Onset Diabetes Mellitus	AODM
Adult Respiratory Distress Syndrome	ARDS
Alcohol	ETOH
Alcoholism.	ALC
Alzheimer's type senile dementia	SDAT
Amyotrophic Lateral Sclerosis	ALS
Arteriosclerosis	AS
Arteriosclerosis Obliterans	ASO
Arteriosclerotic Cardiovascular Disease	ASCVD
Arteriosclerotic Cardiovascular Renal Disease	ASCVRD
Arteriosclerotic Coronary Artery Disease.	ASCAD
Arteriosclerotic Coronary Disease	ASCD
Arteriosclerotic Coronary Heart Disease.	ASCHD
Arteriosclerotic Heart Disease	ASHD
Arteriosclerotic Hypertensive Cardiovascular Disease.	ASHCVD
Arteriosclerotic Hypertensive Heart Disease	ASHD
Arteriosclerotic Hypertensive Vascular Disease	AHVD
Arteriosclerotic Peripheral Vascular Disease	ASPVD
Arteriosclerotic Vascular Disease	ASVD
Arteriosclerotic Vascular Heart Disease	ASVHD
Asphyxiation	ASPH
Aspiration	ASPIR
Atherosclerosis	AT
Atherosclerotic Cardiovascular Disease	ATCVD
Atherosclerotic Coronary Artery Disease.	ATCAD
Atherosclerotic Heart Disease	ATHD
Atherosclerotic Vascular Disease	ATVD

APPENDIX E ABBREVIATIONS

If this ***TERM*** is on a certificate ……key this ***ABBREVIATION***

Atrial Fibrillation	AF
Below Knee Amputation	BKA
Benign Prostatic Hypertrophy	BPH
Breast Adenocarcinoma	BADENO
Breast Carcinoma	BCAR
Bronchogenic Carcinoma	BGCAR
Bronchopneumonia	BPN
Bundle Branch Block	BBB
Cancer	CA
Carcinomatosis	CSS
Cardiac Arrest (this can never be Carcinoma)	CAR
Cardiac Arrhythmia	CARRY
Cardiac Failure	CFA
Cardiomyopathy	CMY
Cardiopulmonary Arrest	CPAR
Cardiopulmonary Failure	CPFA
Cardiorespiratory Arrest	CRAR
Cardiorespiratory Failure	CRFA
Central Nervous System	CNS
Cerebral Hemorrhage	CERHEM
Cerebral Infarction	CERI
Cerebral Thrombosis	CERT
Cerebrovascular	CERV
Cerebrovascular Disease	CERVD
Chronic Brain Syndrome	CBS
Chronic Obstructive Airway Disease	COAD
Chronic Obstructive Lung Disease	COLD
Chronic Obstructive Pulmonary Disease	COPD
Chronic Obstructive Pulmonary Emphysema	COPE
Chronic Organic Brain Syndrome	COBS
Chronic Renal Failure	CRENFA
Coal Worker's Pneumoconiosis	CWP
Colon or Colonic Adenocarcinoma	CADENO
Colon Carcinoma	COLCAR
Congestive Heart Failure	CHF
Coronary Arteriosclerosis	CORAS

APPENDIX E ABBREVIATIONS

If this ***TERM*** is on a certificate ……key this ***ABBREVIATION***

Coronary Artery Bypass Graft	CABG
Coronary Artery Bypass Surgery	CABS
Coronary Artery Disease	CAD
Coronary Heart Disease	CORHD
Cytomegalovirus	CMV
Decubitus Ulcer	DU
Deep Vein Thrombosis	DVT
Dehydration	DEH
Delirium Tremens	DT
Diabetes	DI
Diabetes Mellitus	DM
Disseminated Intravascular Coagulation	DIC
Disease	DZ
Edema	ED
Electromechanical Dissociation	EMD
Emphysema	EMP
End Stage Renal Disease	ESRD
Fever Unknown Origin	FUO
Fracture	FX
Gastric Hemorrhage	GHEM
Gastrointestinal	GI
Gastrointestinal Hemorrhage	GIHEM
Gastroesophageal	GE
Generalized	GEN
Gunshot Wound	GSW
Heart Failure	HFA
Hemorrhage (Never for Hemorrhagic!)	HEM
High Blood Pressure	HBP
Human Immunodeficiency Virus	HIV
Hyaline Membrane Disease.	HMD
Hypertension	HTN
Hypertensive Arteriosclerotic Cardiovascular Disease.	HASCVD
Hypertensive Arteriosclerotic Heart Disease.	HASHD
Hypertensive Arteriosclerotic Vascular Disease.	HASVD
Hypertensive Heart Disease.	HHD
Hypertensive Vascular Disease	HVD

If this ***TERM*** is on a certificate ……key this ***ABBREVIATION***

Influenza	FLU
Insufficiency	INSUF
Insulin Dependent Diabetes	IDDI
Insulin Dependent Diabetes Mellitus	IDDM
Intraventricular Hemorrhage	IVH
Ischemic Heart Disease	IHD
Left	LT
Left Bundle Branch Block.	LBBB
Left Lower Lobe	LLL
Left Middle Lobe	LML
Left Upper lobe	LUL
Liver Cancer	LIVCA
Liver Carcinoma	LIVCAR
Liver Cirrhosis	LIVCIR
Lower Lobe	LL
Lung Adenocarcinoma	LADENO
Lung Cancer	LCA
Lung Carcinoma	LCAR
Lupus Erythematosus	LE
Malignant	MAL
Malignant Hypertension	MALHTN
Malnutrition	MALN
MetaG (this is the only acceptable abbreviation for this)	M
Metastases (this is the only acceptable abbreviation for this)	MES
Metastasis (this is the only acceptable abbreviation for this)	MIS
Metastatic Adenocarcinoma	MADENO
Metastatic Breast Carcinoma	MBCAR
Metastatic Bronchogenic Carcinoma	MBGCAR
Metastatic Cancer	MCA
Metastatic Carcinoma	MCAR
Metastatic Lung Cancer	MLCA
Metastatic Lung Carcinoma	MLCAR
Metastatic Prostate (or Prostatic) Carcinoma	MPRCAR
Mycobacterium Avium Intracellulare	MAI
Myocardial Infarction	MI
Negative	NEG

If this ***TERM*** is on a certificate ……key this ***ABBREVIATION***

Non Insulin Dependent Diabetes (Also- NIDD)	NIDDI
Non Insulin Dependent Diabetes Mellitus	NIDDM
Open Reduction Internal Fixation	ORIF
Organic Brain Syndrome	OBS
Ovarian Carcinoma	OCAR
Pancreatic Carcinoma.	PANCAR
Patent Ductus Arteriosus	PDA
Peripheral Vascular Disease	PVD
Pneumonia	PN
Post Operative	PO
Prematurity	PREM
Prolonged Prothrombin Time	PPT
Prostatic Cancer	PRCA
Prostatic Carcinoma	PRCAR
Pulmonary	PUL
Pulmonary Embolism	PULEM
Renal Failure	RENFA
Respiratory	RESP
Respiratory Arrest	RAR
Respiratory Distress Syndrome	RDS
Respiratory Failure	RFA
Rheumatic Heart Disease	RHD
Right	RT
Right Bundle Branch Block	RBBB
Right Lower Lobe	RLL
Right Middle Lobe	RML
Right Upper Lobe	RUL
Ruptured Abdominal Aortic Aneurysm	RAAA
Septicemia	SEPT
Sick Sinus Syndrome	SSS
Small Bowel Obstruction	SBO
Stab Wound	SW
S' coccus	STAPH
Status Post	SP
Stomach Carcinoma	STCAR
Streptococcal, Streptococcus	STREP

If this ***TERM*** is on a certificate ……key this ***ABBREVIATION***

Sudden Infant Death	SID
Sudden Infant Death Syndrome	SIDS
Syndrome of Inappropriate Diuretic Hormone	SIADH
Systemic Lupus Erythematosus	SLE
Transient Ischemic Attack	TIA
Transitional Cell Carcinoma	TCC
Transurethral Resection	TUR
Transurethral Resection Prostate	TURP
Tuberculosis (Note- also TBC)	TB
Unknown	UNK
Upper Gastrointestinal	UGI
Upper Lobe	UL
Urinary Tract Infection	UTI
Venereal Disease	VD
Ventricular Fibrillation	VF
Week or Weeks	WK

SEVERE PULMONARY DISEASE ASSOCIATED WITH VAPING

Clinician Report Form - Severe Pulmonary Disease Associated with Vaping

Report Date: _____

Reporter Information:

Name and Title: _____ Phone Number: _____

Facility/Hospital Name: _____

Can medical records be sent to the local health department? ❑ Yes ❑ No

Patient Information:

First Name: _____ Middle Initial: _____ Last Name: _____

Date of Birth (month/day/year): _____/_____/_____ Sex: ❑ Male ❑ Female ❑ Unknown

Patient Address: _____

Primary Phone No.: _____ Secondary Phone No.: _____

Race: ❑ White ❑ Black/African American ❑ Asian ❑ Native Hawaiian/Pacific Islander
❑ American Indian/Alaskan Native ❑ Other: _____
Ethnicity: ❑ Hispanic ❑ Non-Hispanic ❑ Unknown

Pregnancy status: ❑ Pregnant ❑ Not pregnant ❑ Unknown ❑ Not applicable

Patient evaluated at: ❑ ED ❑ Outpatient ❑ Inpatient ❑ Other _____

Date of Admission: _____/_____/_____

Patient current disposition: ❑ Still inpatient
❑ Treated and discharged Date of Discharge: _____/_____/_____
❑ Died Date of Death: _____/_____/_____
❑ Other: _____

Working diagnosis (if still inpatient): _____

Discharge diagnosis (if discharged): _____

Patient Inhalation Use in the Past 90 Days (please ask patient or proxy, if patient is unable to answer):

Any combustible cigarette smoking (nicotine)? ❑ Yes ❑ No ❑ Unknown

Any combustible marijuana use? ❑ Yes ❑ No ❑ Unknown

Any vaping or e-cigarette use reported? ❑ Yes ❑ No ❑ Unknown

Any **THC** e-cigarette use reported? ❑ Yes ❑ No ❑ Unknown
Please list product brands:
Devices used for THC:
Date of last e-cigarette THC use: _____
Frequency of e-cigarette THC use: _____
Where were products obtained: _____

Any **nicotine** e-cigarette use reported? ❑ Yes ❑ No ❑ Unknown

Please list product brands: _____

Devices used for nicotine: _____

Date of last e-cigarette nicotine use: _____

Frequency of e-cigarette nicotine use: _____

Where were products obtained: _____

Any **kratom** e-cigarette use reported? ❑ Yes ❑ No ❑ Unknown

Please list product brands: _____

Devices used for kratom: _____

Date of last e-cigarette kratom use: _____

Frequency of e-cigarette kratom use: _____

Where were products obtained: _____

Was any product retained and is available for testing? ❑ Yes ❑ No ❑ Unknown

Health and Medical Information:

Date of Illness Onset: _____/_____/_____ Time: ____ : _____

GI symptoms? ❑ Yes ❑ No If yes, please describe: _____

_____

_____

Respiratory symptoms? ❑ Yes ❑ No If yes, please describe: _____

_____

_____

Constitutional symptoms? ❑ Yes ❑ No If yes, please describe: _____

_____

Does that patient have any pre-existing conditions?

Asthma	❑ Yes	❑ No	❑ Unknown
Emphysema/bronchitis (COPD)	❑ Yes	❑ No	❑ Unknown
Bronchiectasis	❑ Yes	❑ No	❑ Unknown
Hypersensitivity pneumonitis	❑ Yes	❑ No	❑ Unknown
Cystic fibrosis	❑ Yes	❑ No	❑ Unknown
Other respiratory? _____			
Heart failure	❑ Yes	❑ No	❑ Unknown
History of myocardial infarction	❑ Yes	❑ No	❑ Unknown
Other cardiac? _____			
Any rheumatological illness	❑ Yes	❑ No	❑ Unknown
HIV/AIDS	❑ Yes	❑ No	❑ Unknown
Cancer	❑ Yes	❑ No	❑ Unknown
Which type of cancer? _____			
Injection drug use	❑ Yes	❑ No	❑ Unknown
Depression	❑ Yes	❑ No	❑ Unknown
Anxiety	❑ Yes	❑ No	❑ Unknown
Other	❑ Yes	❑ No	❑ Unknown
Please specify: _____			

Part of Ohio Medical Marijuana program ❑ Yes ❑ No ❑ Unknown

Date of most recent dispense (per OARRS): _____

Which product was dispensed? _____

Testing Information:

Test	Collection Date	Result (pos/neg/pending)	Result Date
Rapid influenza test/PCR			
Respiratory viral panel			
Mycoplasma			
Legionella, urine			
Legionella, PCR			
S. pneumoniae, urine			
Blood culture			
Sputum culture			
Urine culture			
BAL culture			
Other:			

Imaging and Procedures:

Imaging performed:	❑ Chest X-Ray	❑ CT	❑ Both
Infiltrates/opacities present:	❑ Yes	❑ No	
Location of findings:	❑ Bilateral	❑ Left	❑ Right
Impression: *(please copy the Summary/Impression from the CT/CXR radiologist's report or attach a copy of the report)*			

Did the patient have a bronchoscopy? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Results of bronchoscopy: _____

_____

_____

Did the patient have a lung biopsy? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Results of lung biopsy: _____

_____

_____

Treatment:

Was the patient treated with antibiotics? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Antimicrobial name	Route	Dose	Frequency	Date started

Response to antibiotics: ❑ Improvement ❑ No change ❑ Worsening clinical status

Was the patient treated with steroids? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Steroid medication name	Route	Dose	Frequency	Date started

Response to steroids: ❑ Improvement ❑ No change ❑ Worsening clinical status

ICU admission required? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Intubation required? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Ventilatory support (CPAP/BiPAP) required? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Placed on ECMO? ❑ Yes ❑ No ❑ Unknown ❑ Not applicable

Notes:

If you are a provider filling out this form, please contact the local health department in the jurisdiction in which the patient resides to report the suspected case. If patient residence is unknown, report to the local health department in which the provider is located. To locate a local health department please visit: https://odhgateway.odh.ohio.gov/lhdinformationsystem/Directory/GetMyLHD

If you have additional questions, please contact your local health department or Kirtana Ramadugu, ODH epidemiologist, at 614-644-0743 or Courtney Dewart, CDC EIS Officer assigned to ODH, at 614-644-8784.

Local Health Departments – please contact ODH using above contact information for case ID number and link to REDCap data entry form.

OPIOID PRESCRIPTIONS

WHY GUIDELINES FOR PRIMARY CARE PROVIDERS?

Primary care providers account for approximately

50%

of prescription opioids dispensed

Nearly

2 million

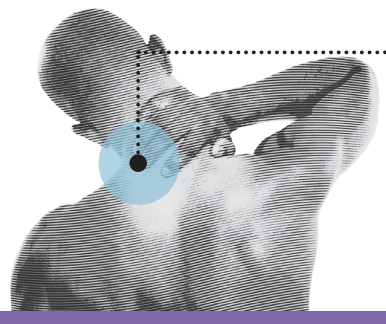
Americans, aged 12 or older, either abused or were dependent on prescription opioids in 2014

- An estimated 11% of adults experience daily pain
- Millions of Americans are treated with prescription opioids for chronic pain
- Primary care providers are concerned about patient addiction and report insufficient training in prescribing opioids

MYTH VS TRUTH

	MYTH	TRUTH
1	Opioids are effective long-term treatments for chronic pain	While evidence supports short-term effectiveness of opioids, there is insufficient evidence that opioids control chronic pain effectively over the long term, and there is evidence that other treatments can be effective with less harm.
2	There is no unsafe dose of opioids as long as opioids are titrated slowly	Daily opioid dosages close to or greater than 90 MME/day are associated with significant risks, and lower dosages are safer.
3	The risk of addiction is minimal	Up to one quarter of patients receiving prescription opioids long term in a primary care setting struggles with addiction. Certain risk factors increase susceptibility to opioid-associated harms: history of overdose, history of substance use disorder, higher opioid dosages, or concurrent benzodiazepine use.

WHAT CAN PROVIDERS DO?



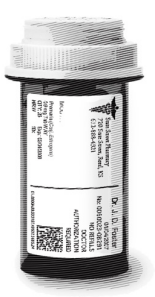
First, **do no harm**. Long-term opioid use has uncertain benefits but known, serious risks. CDC's ***Guideline for Prescribing Opioids for Chronic Pain*** will support informed clinical decision making, improved communication between patients and providers, and appropriate prescribing.

PRACTICES AND ACTIONS

USE NONOPIOID TREATMENT

Opioids are not first-line or routine therapy for chronic pain *(Recommendation #1)*

In a systematic review, opioids did not differ from nonopioid medication in pain reduction, and nonopioid medications were better tolerated, with greater improvements in physical function.



START LOW AND GO SLOW

When opioids are started, prescribe them at the lowest effective dose *(Recommendation #5)*

Studies show that high dosages (≥100 MME/day) are associated with 2 to 9 times the risk of overdose compared to <20 MME/day.

REVIEW PDMP

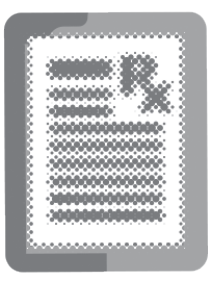
Check prescription drug monitoring program data for high dosages and prescriptions from other providers *(Recommendation #9)*

A study showed patients with one or more risk factors (4 or more prescribers, 4 or more pharmacies, or dosage >100 MME/day) accounted for 55% of all overdose deaths.

AVOID CONCURRENT PRESCRIBING

Avoid prescribing opioids and benzodiazepines concurrently whenever possible *(Recommendation #11)*

One study found concurrent prescribing to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone.



OFFER TREATMENT FOR OPIOID USE DISORDER

Offer or arrange evidence-based treatment (e.g. medication-assisted treatment and behavioral therapies) for patients with opioid use disorder *(Recommendation #12)*

A study showed patients prescribed high dosages of opioids long-term (>90 days) had 122 times the risk of opioid use disorder compared to patients not prescribed opioids.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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CDC GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

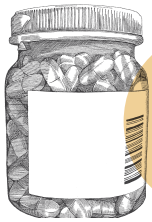
Promoting Patient Care and Safety

THE US OPIOID OVERDOSE EPIDEMIC

The United States is in the midst of an epidemic of prescription opioid overdoses. The amount of opioids prescribed and sold in the US quadrupled since 1999, but the overall amount of pain reported by Americans hasn't changed. This epidemic is devastating American lives, families, and communities.

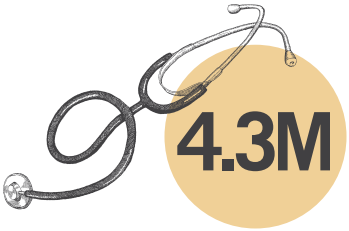
40

More than 40 people die every day from overdoses involving prescription opioids.[1]



165K

Since 1999, there have been over 165,000 deaths from overdose related to prescription opioids.[1]

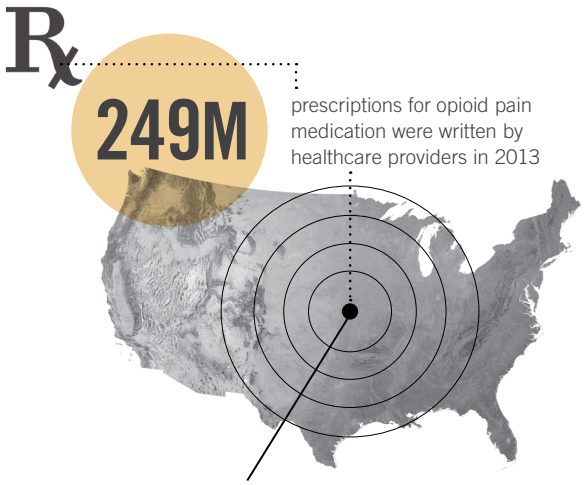


4.3M

4.3 million Americans engaged in non-medical use of prescription opioids in the last month.[2]

PRESCRIPTION OPIOIDS HAVE BENEFITS AND RISKS

Many Americans suffer from chronic pain. These patients deserve safe and effective pain management. Prescription opioids can help manage some types of pain in the short term. However, we don't have enough information about the benefits of opioids long term, and we know that there are serious risks of opioid use disorder and overdose—particularly with high dosages and long-term use.



249M prescriptions for opioid pain medication were written by healthcare providers in 2013

enough prescriptions were written for every American adult to have a bottle of pills

[1] Includes overdose deaths related to methadone but does not include overdose deaths related to other synthetic prescription opioids such as fentanyl.

[2] National Survey on Drug Use and Health (NSDUH), 2014

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NEW CDC GUIDELINE WILL HELP IMPROVE CARE, REDUCE RISKS

The Centers for Disease Control and Prevention (CDC) developed the *CDC Guideline for Prescribing Opioids for Chronic Pain* (Guideline) for primary care clinicians treating adult patients for chronic pain in outpatient settings. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care. The Guideline was developed to:

- Improve communication between clinicians and patients about the benefits and risks of using prescription opioids for chronic pain
- Provide safer, more effective care for patients with chronic pain
- Help reduce opioid use disorder and overdose

The Guideline provides recommendations to primary care clinicians about the appropriate prescribing of opioids to improve pain management and patient safety. It will:

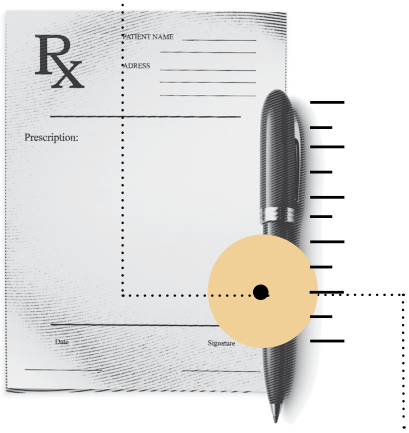
- Help clinicians determine if and when to start prescription opioids for chronic pain
- Give guidance about medication selection, dose, and duration, and when and how to reassess progress, and discontinue medication if needed
- Help clinicians and patients—together—assess the benefits and risks of prescription opioid use

Among the 12 recommendations in the Guideline, there are three principles that are especially important to improving patient care and safety:

- ☑ Nonopioid therapy is preferred for chronic pain outside of active cancer, palliative, and end-of-life care.
- ☑ When opioids are used, the lowest possible effective dosage should be prescribed to reduce risks of opioid use disorder and overdose.
- ☑ Clinicians should always exercise caution when prescribing opioids and monitor all patients closely.

To develop the Guideline, CDC followed a transparent and rigorous scientific process using the best available scientific evidence, consulting with experts, and listening to comments from the public and partners.

patients receiving long-term **opioid therapy** in primary care settings



struggle with **opioid use disorder.**

PATIENT CARE AND SAFETY IS CENTRAL TO THE GUIDELINE

Before starting opioids to treat chronic pain, patients should:

- Make the most informed decision with their doctors
- Learn about prescription opioids and know the risks
- Consider ways to manage pain that do not include opioids, such as:
  - Physical therapy
  - Exercise
  - Nonopioid medications, such as acetaminophen or ibuprofen
  - Cognitive behavioral therapy (CBT)

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CDC RECOMMENDATIONS

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1 OPIOIDS ARE NOT FIRST-LINE THERAPY

Nonpharmacologic therapy and **nonopioid pharmacologic therapy** are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

Nonpharmacologic therapies and nonopioid medications include:

- Nonopioid medications such as acetaminophen, ibuprofen, or certain medications that are also used for depression or seizures
- Physical treatments (eg, exercise therapy, weight loss)
- Behavioral treatment (eg, CBT)
- Interventional treatments (eg, injections)

2 ESTABLISH GOALS FOR PAIN AND FUNCTION

Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

3 DISCUSS RISKS AND BENEFITS

Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

4 USE IMMEDIATE-RELEASE OPIOIDS WHEN STARTING

When starting opioid therapy for chronic pain, clinicians should prescribe **immediate-release opioids** instead of extended-release/long-acting (ER/LA) opioids.

Immediate-release opioids: faster acting medication with a shorter duration of pain-relieving action

Extended release opioids: slower acting medication with a longer duration of pain-relieving action

5 USE THE LOWEST EFFECTIVE DOSE

When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 **morphine milligram equivalents (MME)/day**, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.

Morphine milligram equivalents (MME)/day: the amount of morphine an opioid dose is equal to when prescribed, often used as a gauge of the abuse and overdose potential of the amount of opioid that is being given at a particular time

6 PRESCRIBE SHORT DURATIONS FOR ACUTE PAIN

Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

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7 EVALUATE BENEFITS AND HARMS FREQUENTLY

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

ASSESSING RISK AND ADDRESSING HARMS

8 USE STRATEGIES TO MITIGATE RISK

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering **naloxone** when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent **benzodiazepine** use, are present.

9 REVIEW PDMP DATA

Clinicians should review the patient's history of controlled substance prescriptions using state **prescription drug monitoring program (PDMP)** data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

10 USE URINE DRUG TESTING

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

11 AVOID CONCURRENT OPIOID AND BENZODIAZEPINE PRESCRIBING

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

12 OFFER TREATMENT FOR OPIOID USE DISORDER

Clinicians should offer or arrange evidence-based treatment (usually **medication-assisted treatment** with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

Naloxone: a drug that can reverse the effects of opioid overdose

Benzodiazepine: sometimes called "benzo," is a sedative often used to treat anxiety, insomnia, and other conditions

PDMP: a prescription drug monitoring program is a statewide electronic database that tracks all controlled substance prescriptions

Americans, aged 12 or older, either abused or were dependent on prescription opioids in 2014

Medication-assisted treatment: treatment for opioid use disorder including medications such as buprenorphine or methadone

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