Vaccinations for Adults

Presented by: Heidi Gurov, RN, BSN, CMSRN
Nurse Consultant

Wyoming Department of Health | PUBLIC HEALTH DIVISION | IMMUNIZATION UNIT

Overview

- Routine adult vaccination
- Routine adult vaccination based on age
- Vaccinations recommended for those with chronic health conditions
- Paying for vaccines
- Resources

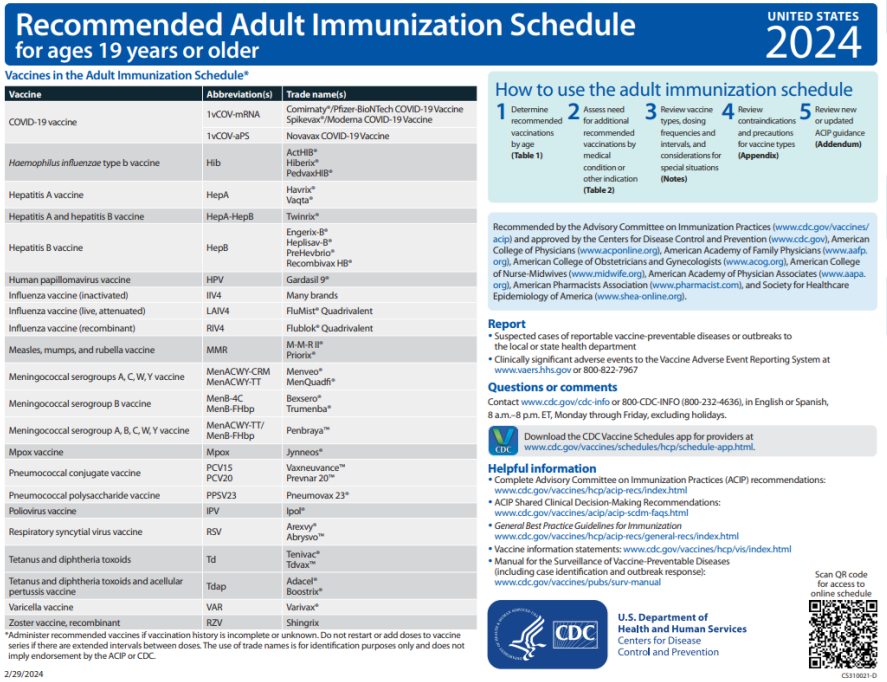
Routine adult vaccination

Adults need vaccines, too!

- Most adults are not aware of the vaccines recommended for them
  - Approximately 1 in 5 adults are up to date on recommended vaccines
- Types of recommendations:
  - Routine for all adults
  - Recommendations based on:
    - **H**ealth
    - **A**ge
    - **L**ifestyle
    - **O**ccupation

Recommended Adult Immunization Schedule

- The Advisory Committee on Immunization Practices (ACIP) sets our vaccine recommendations in the U.S.
- Two schedules are published annually:
  - Recommended Child and Adolescent Immunization Schedule
    - 0-18 years
  - Recommended Adult Immunization Schedule
    - 19 years and older



Recommended Adult Immunization Schedule for ages 19 years or older

UNITED STATES 2024

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)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® 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	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids 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.

2/29/2024

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/vaccines/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/schedules/hcp/schedule-app.html.

Helpful information
- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: www.cdc.gov/vaccines/hcp/acip-recs/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/acip-scdm-faqs.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/vaccines/pubs/surv-manual

Scan QR code for access to online schedule

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

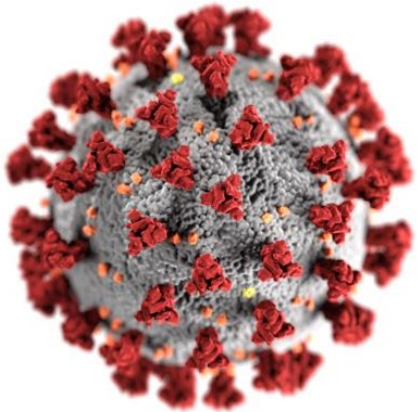
CS310021-D

Routinely recommended for all adults

- All adults should make sure they are up to date on vaccines for:
  - COVID-19
  - Influenza (flu)
  - Tetanus, diphtheria, and pertussis

COVID-19

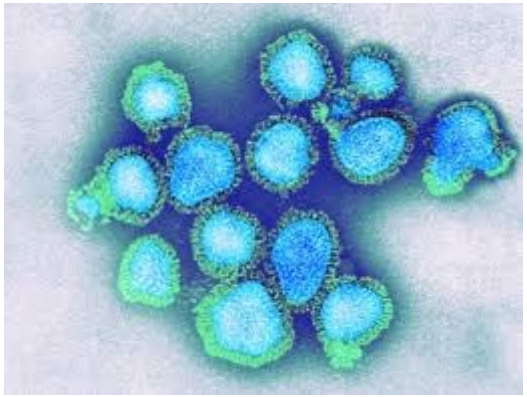
- Respiratory illness caused by the SARS-CoV-2 virus
- Most often causes respiratory symptoms similar to other respiratory illnesses, but some people become severely ill
- Some people, regardless of severity of symptoms, will develop Post-COVID Conditions (“Long COVID”)



COVID-19

- Everyone should get an updated 2023-2024 COVID-19 vaccine
  - All adults 65 years and older are recommended to receive an additional dose of updated vaccine
  - Anyone who is moderately to severely immunocompromised may get additional doses of updated vaccine
- 2024-2025 vaccine recommendations are being voted on by ACIP this week
- Three brands are available, none are preferentially recommended over another
  - mRNA: Moderna and Pfizer
  - Protein subunit: Novavax

Influenza (flu)



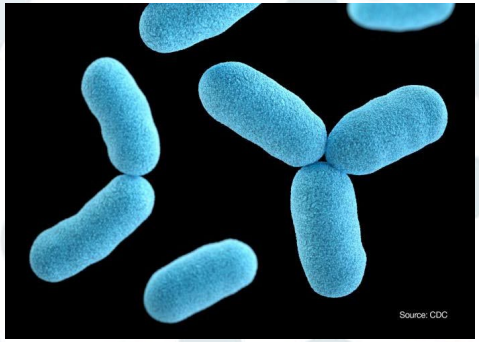
- Potentially severe respiratory infection caused by the influenza virus
- The virus mutates (changes) easily and rapidly, so vaccine must be updated every flu season
- Everyone 6 months of age and older should receive a flu vaccine ideally by October of each season
    - Vaccination is recommended as long as non-expired vaccine is available

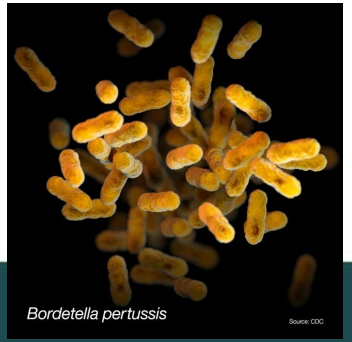
Influenza (flu)

- Those 65 years of age and older are preferentially recommended to receive either:
  - Fluzone High Dose (inactivated vaccine)
  - Flublok (recombinant vaccine)
  - Fluad (adjuvanted vaccine)
- An intranasal vaccine (FluMist) is available for those 2-49 years who are not pregnant or with certain medical conditions
- Egg allergy is not a contraindication to receiving flu vaccine, and any brand can be used in egg allergic people

Tetanus, diphtheria, and pertussis

- Diphtheria
  - Severe respiratory infection caused by the toxin produced by the bacteria *Corynebacterium diphtheriae*
- Tetanus
  - Severe disease of the nervous system caused by the toxin produced by the bacteria *Clostridium tetani*
  - Found in the soil (not just on rusty nails!)
  - Natural infection does not lead to immunity
- Pertussis
  - Highly contagious respiratory infection caused by the bacteria *Bordetella pertussis*
  - Commonly known as whooping cough





Td/Tdap recommendations

- All adults who did not get Tdap as an adolescent should get one dose of Tdap
- Pregnant persons should get a dose of Tdap between 27 and 36 weeks of each pregnancy
- All adults should receive either Td or Tdap booster shot every 10 years
    - If someone has a “dirty” wound, it is recommended to booster if it has been 5 years since the last dose of Td or Tdap

Questions?

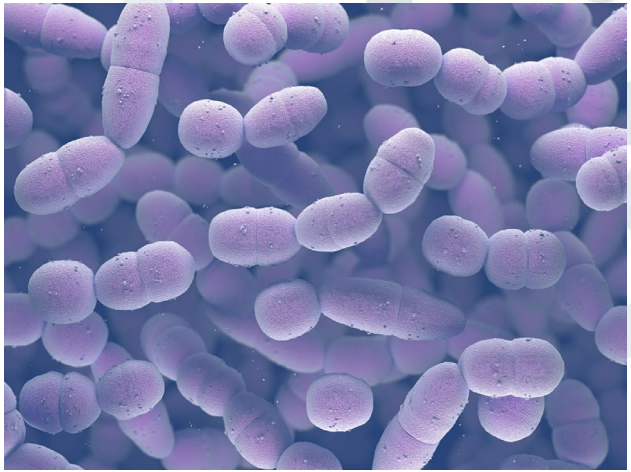
Routine vaccination based on age

Routine vaccinations based on age

- Pneumococcal
- Respiratory syncytial virus (RSV)
- Shingles
- Other vaccines

Pneumococcal

- Pneumococcal is any infection caused by *Streptococcus pneumoniae*
- Spread through direct contact with respiratory secretions
- Infections include sinusitis and otitis media
- Invasive pneumococcal disease (IPD) is severe and can be fatal



Pneumococcal

- Invasive pneumococcal disease
  - Pneumonia
    - Most common clinical presentation in adults
    - Accounts for up o 30% of adult community-acquired pneumonia
    - Complications include empyema, pericarditis, and respiratory failure
      - 25-30% will also have bacteremia or meningitits
    - 1 in 20 adults who get pneumococcal pneumonia die

Pneumococcal

- Invasive pneumococcal disease
  - Meningitis
    - Accounts for 50% of bacterial meningitis cases
    - 1 in 6 older adults who get pneumococcal meningitis die
    - Survivors may have long-term problems, such as hearing loss
    - Estimated 2,000 cases each year

Pneumococcal

- Invasive pneumococcal disease
  - Bacteremia
    - Also called sepsis
    - 1 in 8 adults with pneumococcal bacteremia die
    - Can lead to loss of limbs

Pneumococcal vaccines

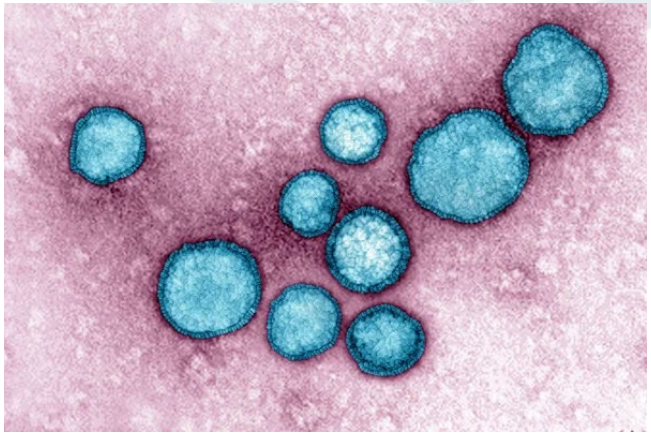
- Two types of vaccines:
  - Pneumococcal conjugate vaccine (PCV)
    - 1 dose of PCV15 (Vaxneuvance - Merck) or PCV20 (Prevnar20 - Pfizer) recommended for adults 65 years of age and older
    - ACIP is voting on recommendations this week for PCV21 (Merck) use in adults
  - Pneumococcal polysaccharide vaccine (PPSV)
    - 1 dose of PPSV23 (Pneumovax23 - Merck) routinely recommended for adults in series with PCV15 at 65 years of age or older

Pneumococcal vaccines

- Chronic heart or lung disease
- Diabetes
- Cerebrospinal fluid leak
- Cochlear implant
- Sickle cell disease
- Asplenia
- Immunodeficiencies
- HIV infection
- Chronic renal failure
- Cancer
- Immunosuppressive drugs and radiation therapy
- Organ transplant recipients
- Chronic liver disease
- Smokers
- Alcoholism

Respiratory syncytial virus (RSV)

- Common respiratory virus that typically causes mild cold-like symptoms
- In older adults, RSV can lead to severe illness, hospitalization, and worsening of chronic conditions
- Adults with certain chronic diseases are at higher risk
  - Chronic heart or lung disease
  - Immunocompromised
  - Elderly or frail
  - Living in nursing homes or long-term care facilities

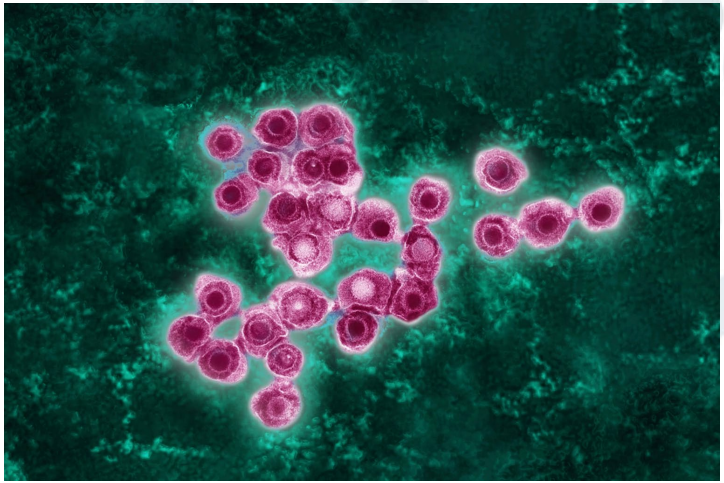


Respiratory syncytial virus (RSV) vaccines

- Three vaccines:
  - Currently available for use
    - Abrysvo (Pfizer)
    - Arexvy (GSK)
  - Pending ACIP recommendations (vote this week)
    - mRESVIA (Moderna)
- Adults 60 years and older are recommended to receive 1 dose of vaccine using shared clinical decision making
  - Decision to vaccinate may be informed by:
    - Patient's risk of severe RSV disease
    - Provider's clinical discretion
    - Patient preference

Shingles

- Also called herpes zoster
- Caused by varicella zoster virus (VZV)
  - Same virus that causes varicella (chickenpox)
  - After a person recovers from varicella, the virus stays inactive in the dorsal root ganglia of nerve cells
- Complications:
  - Postherpetic neuralgia (PHN)
    - Pain that persists in the area of the rash and continues more than 90 days
  - Skin infections
  - Vision loss
  - Pneumonia
  - Encephalitis



Shingles

- Risk for shingles increases as cell-mediated immunity towards VZV declines
  - Increasing age
  - Medical conditions
  - Immunocompromised from cancer, HIV, or medications
- 1 in 3 people in the U.S. will develop shingles during their lifetime
- 99.5% of people born before 1980 in the U.S. were infected with VZV
- Approximately 1 million cases of shingles occur annually in the U.S.

Shingles vaccine

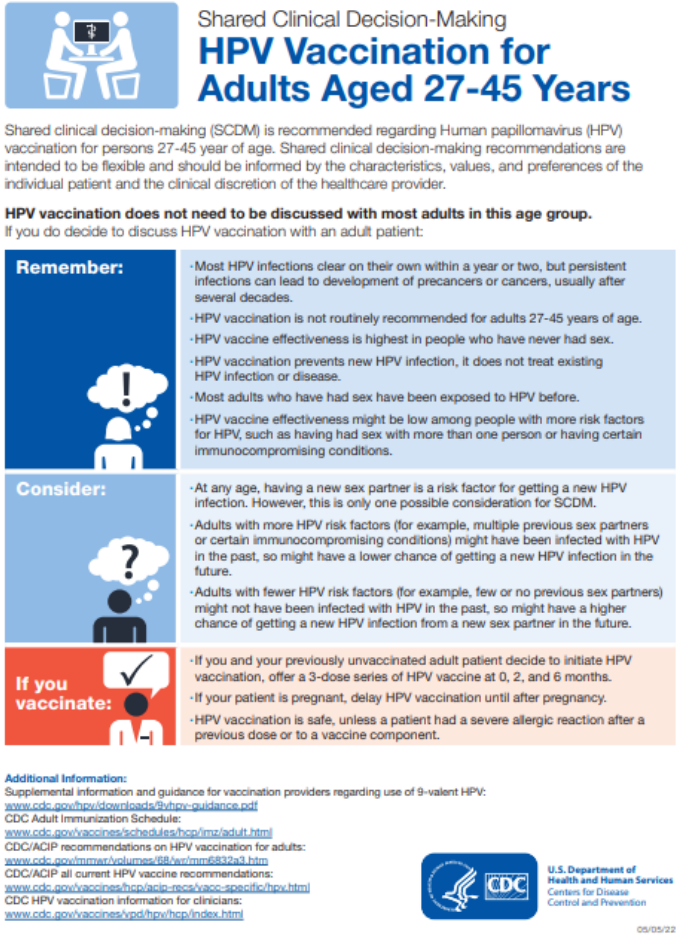
- All adults 50 years and older should receive two doses of recombinant zoster vaccine (RZV, Shingrix)
  - Interval between doses is 2-6 months
- Adults 19 years and older who are immunocompromised because of disease or therapy should receive two doses of recombinant zoster vaccine (RZV, Shingrix)
  - Interval between doses is 1-2 months
- A person can receive Shingrix even if they:
  - Had shingles
  - Received Zostavax (zoster live vaccine)
  - Received varicella (chickenpox) vaccine

Other vaccines

- Other vaccines are recommended for various adult age groups:
  - Hepatitis B
    - All adults 19-59 years should be vaccinated if not previously vaccinated
    - Adults 60 years and older with risk factors for hepatitis B should be vaccinated
    - Adults 60 years and older with no factors may be vaccinated if desired

Other vaccines

- Other vaccines are recommended for various adult age groups:
  - Human papillomavirus (HPV)
    - Routinely recommended through age 26 years
    - 27-45 year olds may be vaccinated utilizing shared clinical decision making
      - https://www.cdc.gov/vaccines/hcp/admin/downloads/isd-job-aid-scdm-hpv-shared-clinical-decision-making-hpv.pdf



Shared Clinical Decision-Making

HPV Vaccination for Adults Aged 27-45 Years

Shared clinical decision-making (SCDM) is recommended regarding Human papillomavirus (HPV) vaccination for persons 27-45 year of age. Shared clinical decision-making recommendations are intended to be flexible and should be informed by the characteristics, values, and preferences of the individual patient and the clinical discretion of the healthcare provider.

HPV vaccination does not need to be discussed with most adults in this age group.
If you do decide to discuss HPV vaccination with an adult patient:

Remember:

- Most HPV infections clear on their own within a year or two, but persistent infections can lead to development of precancers or cancers, usually after several decades.
- HPV vaccination is not routinely recommended for adults 27-45 years of age.
- HPV vaccine effectiveness is highest in people who have never had sex.
- HPV vaccination prevents new HPV infection, it does not treat existing HPV infection or disease.
- Most adults who have had sex have been exposed to HPV before.
- HPV vaccine effectiveness might be low among people with more risk factors for HPV, such as having had sex with more than one person or having certain immunocompromising conditions.

Consider:

- At any age, having a new sex partner is a risk factor for getting a new HPV infection. However, this is only one possible consideration for SCDM.
- Adults with more HPV risk factors (for example, multiple previous sex partners or certain immunocompromising conditions) might have been infected with HPV in the past, so might have a lower chance of getting a new HPV infection in the future.
- Adults with fewer HPV risk factors (for example, few or no previous sex partners) might not have been infected with HPV in the past, so might have a higher chance of getting a new HPV infection from a new sex partner in the future.

If you vaccinate:

- If you and your previously unvaccinated adult patient decide to initiate HPV vaccination, offer a 3-dose series of HPV vaccine at 0, 2, and 6 months.
- If your patient is pregnant, delay HPV vaccination until after pregnancy.
- HPV vaccination is safe, unless a patient had a severe allergic reaction after a previous dose or to a vaccine component.

Additional Information:
Supplemental information and guidance for vaccination providers regarding use of 9-valent HPV:
www.cdc.gov/hpv/downloads/9vhpv-guidance.pdf
CDC Adult Immunization Schedule:
www.cdc.gov/vaccines/schedules/hcp/imz/adult.html
CDC/ACIP recommendations on HPV vaccination for adults:
www.cdc.gov/mmwr/volumes/68/wr/mm6832a3.htm
CDC/ACIP all current HPV vaccine recommendations:
www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hpv.html
CDC HPV vaccination information for clinicians:
www.cdc.gov/vaccines/vpd/hpv/hcp/index.html

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

05/05/22

Other vaccines

- Other vaccines are recommended for various adult age groups:
  - Measles, mumps, and rubella (MMR)
    - Adults born before 1957 are presumed immune to measles, mumps, and rubella
    - Adults with no presumptive evidence of immunity should receive 1 or 2 doses of MMR (depending on risk factors)
  - Meningococcal B (MenB)
    - Adults through 23 years may receive MenB vaccine
  - Varicella
    - Adults born before 1980 in the U.S. are presumed immune to varicella
    - Adults without evidence of immunity or presumed immunity should receive 2 doses 4-8 weeks apart

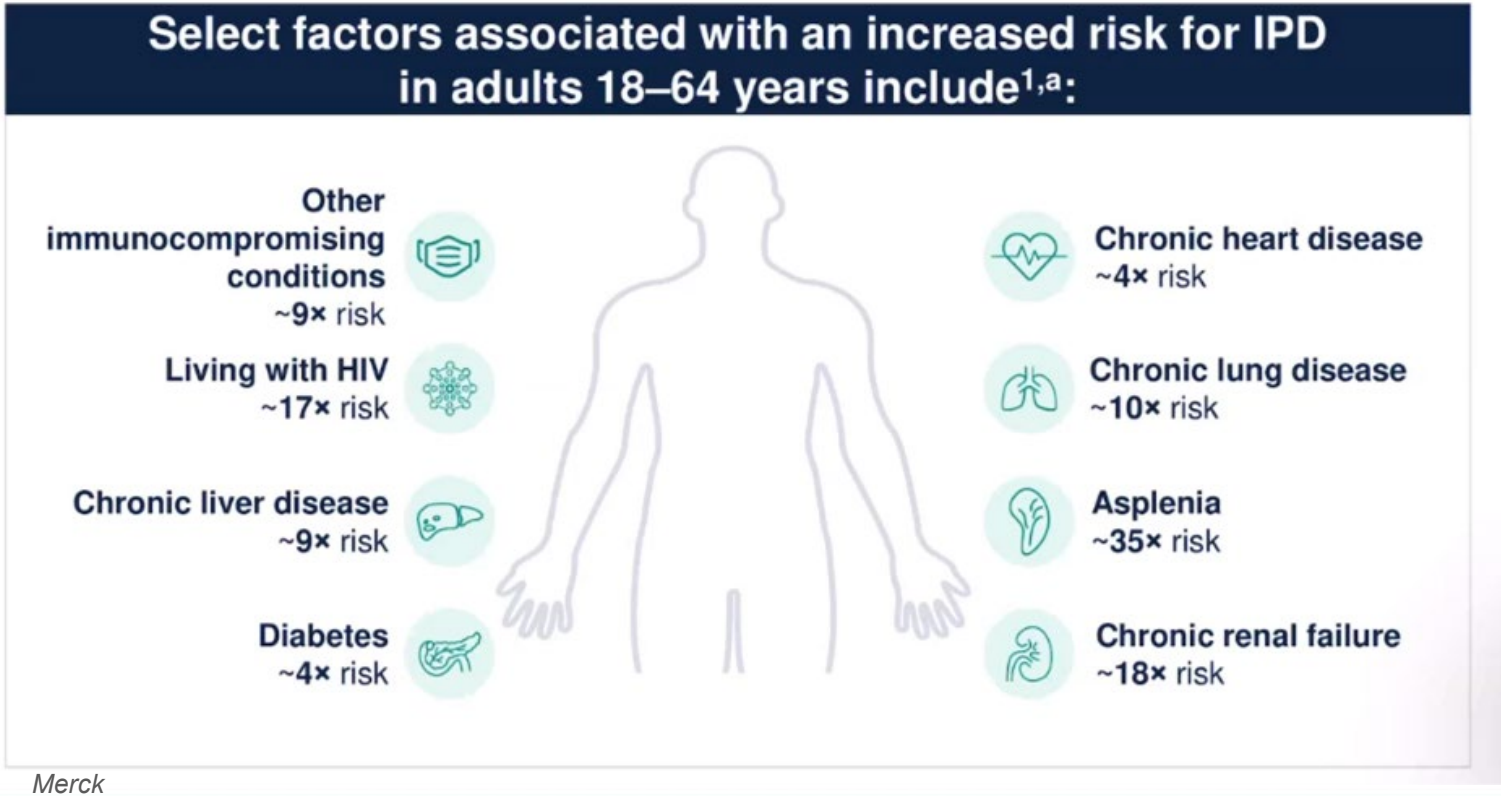
Questions?

Vaccinations recommended for those with chronic health conditions

Why?

- Chronic health conditions can make a person more vulnerable to complications from vaccine preventable diseases
  - This is true even if the health condition is controlled and well maintained
- The inflammation caused by some infections can also aid in the development of chronic health conditions, such as cardiovascular disease
- Infection can worsen chronic health condition symptoms

Chronic health conditions & IPD - an example



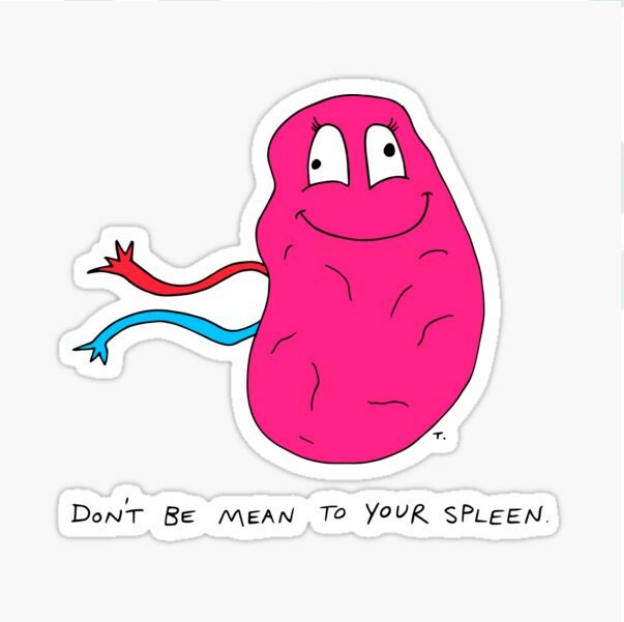
Merck

A reminder

- All routinely recommended vaccines should also be received as long as they are not contraindicated

Asplenia

- The spleen is important for filtering blood-borne pathogenic bacteria, and functional or anatomic asplenia increases the risk of infections from those bacteria
  - Includes congenital absence, surgical removal, or medical conditions that result in poor or absent function such as sickle cell disease
- Vaccines recommended:
  - Hib (*Haemophilus influenzae* type b)
  - MenACWY and MenB
  - Pneumococcal



Diabetes

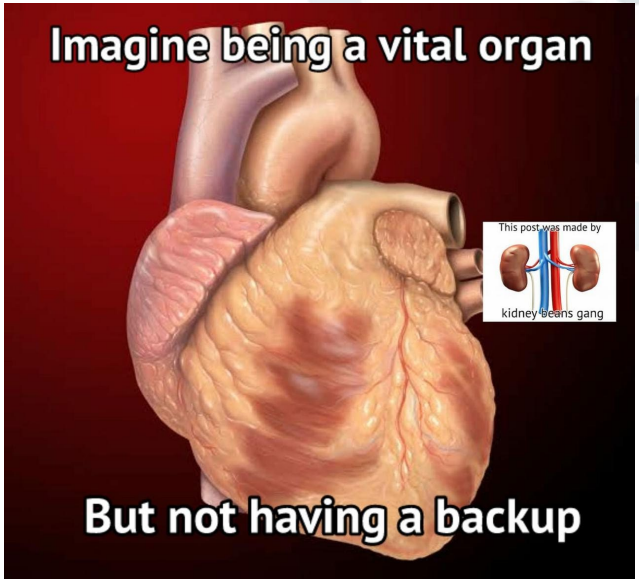
- Type 1 and 2 diabetes is considered an immunocompromising condition
  - Even if well managed, it is harder for the immune system to fight off infections
- Some infections, such as flu, can raise blood glucose to dangerously high levels
  - Adults with diabetes are 3 times more likely to die from from flu-related complications and 6 times more likely to be hospitalized due to flu
- Higher risk of hepatitis B infections than rest of population
  - Sharing of blood glucose monitors, finger stick devices, and other diabetes care equipment

Diabetes

- Vaccines recommended:
  - Pneumococcal
- All routinely recommended vaccines should also be received
  - Reminder - hepatitis B vaccine is recommended for all adults up through 59 years and for some adults 60 years and older known risk factors

Heart disease, stroke, or other cardiovascular disease

- Some vaccine preventable diseases, such as flu, can increase the risk of another heart attack
- Vaccines recommended
  - Pneumococcal



HIV infection

- HIV compromises the immune system
- Vaccines recommended:
  - Hepatitis A
  - Hepatitis B
  - MenACWY
  - Pneumococcal
  - Shingles
- Vaccines recommended if CD4 count is 200 or greater:
  - Varicella (all adults born 1980 or later)
  - MMR (all adults born 1957 or later)
- Recommended through 26 years of age, and for some 27-45 years of age
  - HPV

Chronic kidney disease and dialysis

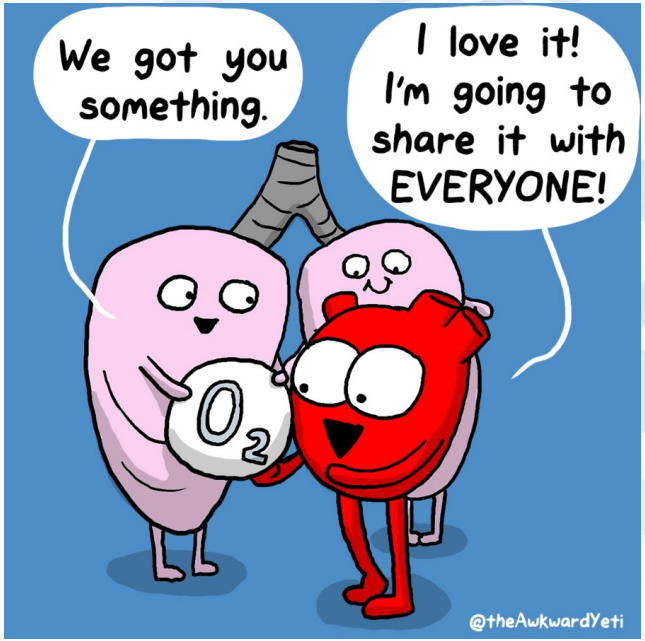
- Chronic kidney disease can cause immune system dysfunction, and patients are at high risk for complications from vaccine-preventable diseases
- Hemodialysis patients have an elevated risk of hepatitis B due to increased potential for contact with contaminated surfaces and equipment
- Vaccines recommended:
  - Hepatitis B
  - Pneumococcal

Liver disease

- Liver disease can occur from multiple etiologies
- Hepatic decompensation may develop when infected with many vaccine preventable infections
- Vaccines recommended:
  - Hepatitis A
  - Hepatitis B
  - Pneumococcal

Lung disease

- Includes conditions such as asthma and COPD
- Those with lung disease are at higher risk for severe disease and complications from certain vaccine preventable diseases
  - Chronic lung diseases may worsen after infection with vaccine-preventable diseases
- Vaccines recommended:
  - Pneumococcal



Altered immunocompetence

- Having a weakened immune system means that it is more difficult to fight off infections or diseases in the body
- A person can be immunocompromised as a result of:
  - Congenital or acquired disorders
  - Disease
  - Immunosuppressive medical treatment

Altered immunocompetence

- Vaccines recommended:
  - Hib
    - Recommended for adults with complement deficiency or who have received a hematopoietic stem cell transplant (HSCT or a bone marrow transplant)
  - Pneumococcal
  - MenACWY and MenB
    - Recommended for adults with complement component deficiency
  - Shingles
- All routinely recommended vaccines should also be received, except for live vaccines where there is a contraindication (i.e. MMR, varicella, live flu vaccine)
- https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html

Questions?

Paying for Vaccines

Private insurance

- All Health Insurance Marketplace plans and most other private insurance plans must cover ACIP recommended vaccines without charging a copayment or coinsurance when provided by an in-network provider

Medicare

- Part B plans will pay for:
  - COVID-19
  - Hepatitis B
  - Flu
  - Pneumococcal
  - Any vaccine directly related to the treatment of an injury or direct exposure to a disease or condition, such as tetanus and rabies
- Part D plans:
  - All adult vaccines recommended by ACIP available at no cost, including:
    - RSV
    - Shingles

Medicaid

- Beginning October 1, 2023, most adults with coverage from Medicaid will be guaranteed coverage of all vaccines recommended by ACIP at no cost to them

Uninsured and underinsured

Adult Hepatitis Vaccine Program

- Wyoming residents 19 years and old with no history of prior series completion can receive hepatitis A and B vaccines at low cost

Adult Vaccine Initiative

- Adults 19 years and older can receive:
  - RSV
  - HPV
  - Tdap
  - Shingles

Uninsured and underinsured

Bridge Access Vaccine Program

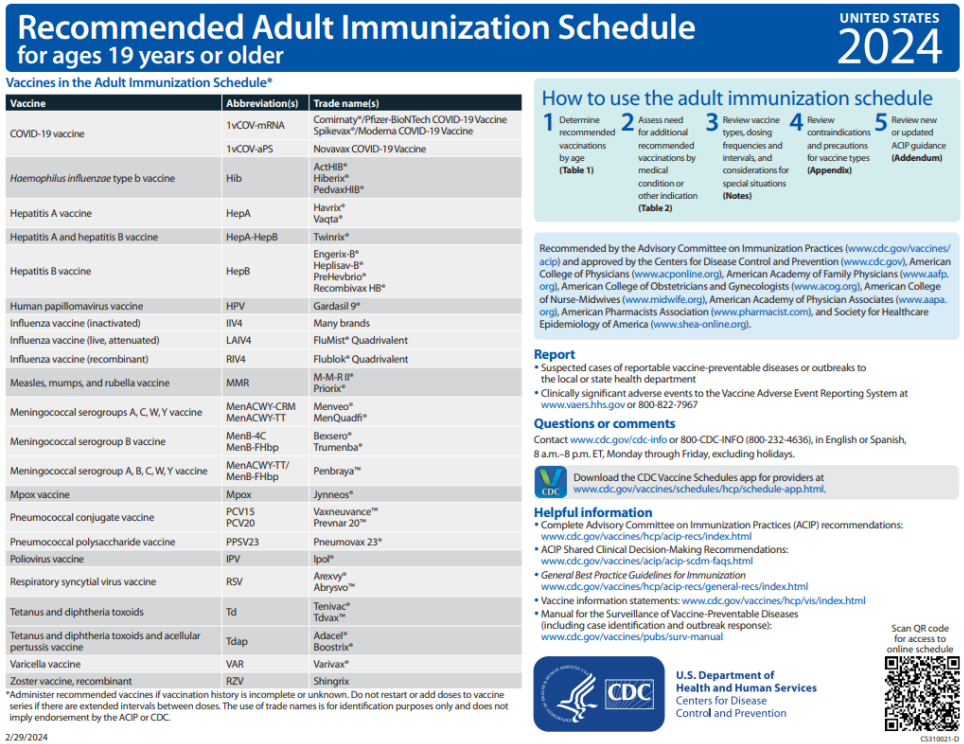
- Adults 18 years and older can get free COVID-19 vaccines
- Discontinuing August 2024

Patient assistance programs

- Vaccine manufacturers may offer patient assistance programs for certain vaccines
- Reach out directly to vaccine manufacturers for details and applications

Resources

Recommended Adult Immunization Schedule



Recommended Adult Immunization Schedule for ages 19 years or older

UNITED STATES 2024

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)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® 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	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids 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.

2/29/2024

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/vaccines/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/schedules/hcp/schedule-app.html.

Helpful information
- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: www.cdc.gov/vaccines/hcp/acip-recs/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/acip-scdm-faqs.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/vaccines/pubs/surv-manual

Scan QR code for access to online schedule

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

CS310021-D

https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf

H-A-L-O

From Immunize.org

https://www.immunize.org/wp-content/uploads/catg.d/p3070.pdf

Before You Vaccinate Adults, Consider Their "H-A-L-O"!

What is H-A-L-O? It's an easy-to-use chart to help you make an *initial* decision about vaccinating a patient based on four factors — the patient's **Health, Age, Lifestyle, and Occupation**. You can give certain vaccines to all adults without considering other factors (e.g., annual influenza), while a few vaccines (e.g., RSV, MenB) are not routine but may be given to patients in certain age groups based on shared clinical decision-making (SCDM) between you and your patient.

Not all patients who mention one or more **H-A-L-O** factors will need to be vaccinated. Before you make a *definitive* decision about vaccinating your patient, you should refer to the more detailed information found in the complete vaccine recommendations of the CDC's Advisory Committee on Immunization Practices (ACIP) at www.cdc.gov/vaccines/hcp/acip-recs/index.html.

How do I use H-A-L-O?
Though some H-A-L-O factors can be easily determined (e.g., age, pregnancy), you will need to ask your patient about others. Once you determine which of the factors apply, scan down each column of the chart to see which vaccinations are possibly indicated.

H-A-L-O checklist of factors that indicate a possible need for adult vaccination

	H Health Factors									A Age Factors	L Lifestyle Factors							C Occupational or Other Factors				
Vaccine	During pregnancy	Certain chronic diseases	Immunosuppressed (including HIV infection)	History of sexually transmitted diseases	Asplenia	Cochlear implant candidate/recipient	Organ transplant (for stem cell transplant, see ACIP's Best Practices Guidelines for Immunization)	Cerebrospinal fluid (CSF) leak	Alcoholism		Men who have sex with men	Not in a long-term, mutually monogamous relationship	User of injecting or non-injecting drugs	Homelessness	International traveler	Close contact of international adoptee	Tobacco smoking	College students	Healthcare worker	Certain lab workers	People who live or work in an area of an outbreak	Adults in institutional settings (e.g., long-term care, correctional)
COVID-19	Routine for all adults, including during pregnancy. Recommendations may vary by age, and immunocompromised status ····►																					
HepA		✔	✔							Anyone of any age who wants to be protected	✔		✔	✔	✔	✔				✔	✔	
HepB		✔	✔	✔						Routine through 59 yrs and based on risk factors for 60+; may give to anyone 60+	✔	✔	✔		✔				✔			✔
Hib		✔			✔																	
HPV										Routine through 26 yrs; based on SCDM* for 27–45 yrs												
IPV															✔					✔		
Influenza	Annual vaccination is recommended for all adults ····►																					
Meningococcal ACWY		✔	✔		✔										✔			✔		✔	✔	
Meningococcal B		✔			✔					Based on SCDM* for 16–23 yrs										✔	✔	
MMR			†							Routine 1 dose if born after 1956; 2nd dose for some					✔			✔	✔		✔	
PCV20 or PCV15		✔	✔		✔	✔	✔	✔	✔	Routine for 65+ yrs; based on risk factors for 19–64 yrs							✔					
PPSV23	PPSV23 only recommended after an adult with an indication for PCV (see row above) has received PCV13 or PCV15; PPSV23 not needed after an adult receives PCV20.																					
RSV										Adults age 60+ yrs based on SCDM*												
Tdap/Td	Tdap/Td boosters every 10 years for all adults; pregnant women should receive Tdap during each pregnancy (gestational weeks 27–36) ····►																					
Varicella‡	Completion of a 2-dose series for non-pregnant adults without evidence of immunity to varicella (see immunization schedule for details of acceptable evidence of immunity) ····►																					
Zoster		✔	✔				✔			Routine for 50+ yrs; for 19–49 yrs who are immunocompromised												

Immunize.org

FOR PROFESSIONALS www.immunize.org / FOR THE PUBLIC www.vaccineinformation.org

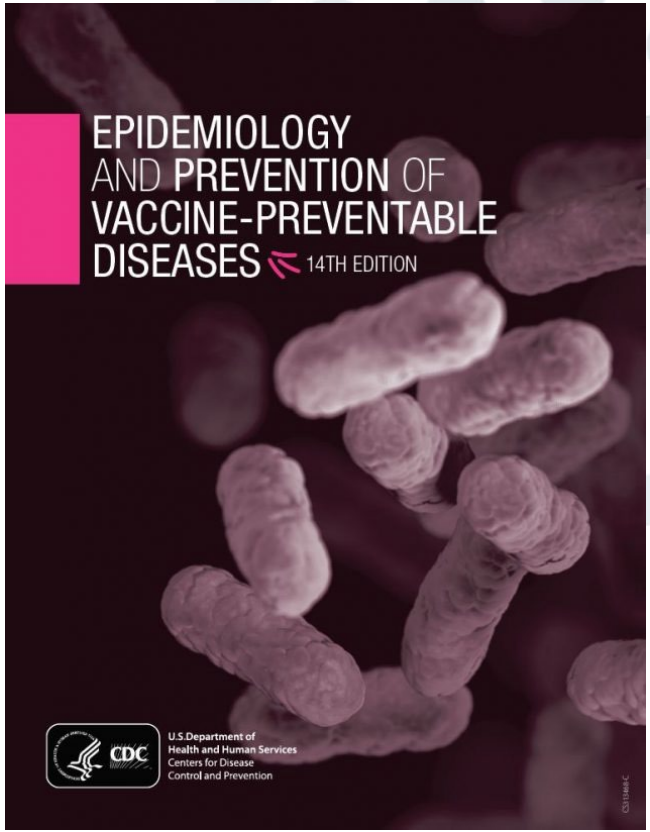
www.immunize.org/catg.d/p3070.pdf
Item #P3070 (9/18/2023)

Scan for PDF

NOTES
- • = SCDM (Shared Clinical Decision-Making): See ACIP recommendations on considerations for SCDM for HPV for adults 27–45 years, for MenB for 16–23 years., and for RSV vaccine for 60 years and older.
- † = Vaccination may be indicated depending on degree of immunosuppression.
- ‡ = Varicella is contraindicated in people who are immunocompromised.

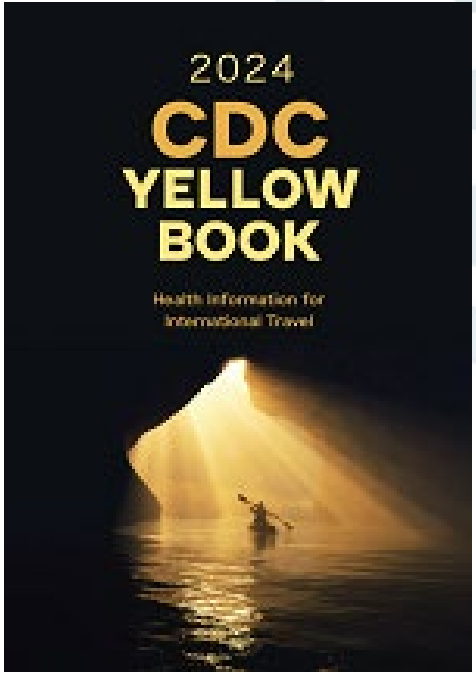
Other resources

- Immunize.org
  - Patient education
  - Translated Vaccine Information Statements and patient education
  - Clinical resources
- CDC Epidemiology and Prevention of Vaccine Preventable Diseases
  - The “Pink Book”



Travel resources

- CDC Travelers' Health
  - cdc.gov/travel
- CDC Yellow Book



Thank you!

Heidi Gurov, RN, BSN, CMSRN
Nurse Consultant
307-777-8981
heidi.gurov@wyo.gov

Wyoming Department of Health | PUBLIC HEALTH DIVISION | IMMUNIZATION UNIT