Role of Pharmacist in Vaccination: Challenges and Opportunities

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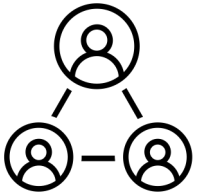
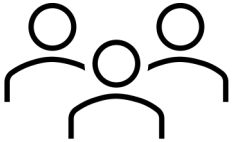
Objectives:

At the end of the presentation, the audience will be able to:

- Discuss and identify the challenges faced by pharmacists in vaccination.
- Review the significance of some vaccines in preventing infectious diseases and reducing mortality rates globally.
- Describe and explore the potential opportunities of expanding pharmacists' roles in vaccination.
- Value the roles that pharmacists play in the immunization process.



Challenges



Health Beliefs or Misinformation

Access or Coverage Issues

Low Administration Rates

Supply Chain Management

Time Management

Vaccine Hesitancy

Reference: Poudel, Arjun, et al. Pharmacist role in vaccination: Evidence and challenges. Vaccine. Volume 37, Issue 40, 2019, Pages 5939-5945.

Reimbursement Rates

Professional Trust

Human Resources

Certification Requirements

Being Up to Date

Scope of Practice

Reference: Poudel, Arjun, et al. Pharmacist role in vaccination: Evidence and challenges. Vaccine. Volume 37, Issue 40, 2019, Pages 5939-5945.

Let's talk about the Myths!

1 Myth:
The body's immune system can cope with infection without the help of vaccines.

Fact:
Without causing infection, vaccines trick the immune system into responding as if the body is under attack from a specific bacterium or virus.

2 Myth:
The immune systems of babies are protected through the placenta and breastfeeding, so they don't need vaccination.

Fact:
Babies immune systems can meet many challenges, although the immune system in an infant is still developing and needs to become active to protect against a range of bacteria and viruses.

3 Myth:
Combining two or three vaccines into one injection may put a baby's immune system under considerable strain. Vaccines should be separated and given at six-monthly or yearly intervals.

Fact:
Delaying vaccines would leave children vulnerable to catching diseases. Vaccines do not reduce a child's immunity. Combining vaccines reduces the number of injections that babies and children need to receive.

4 Myth:
Vaccines cause side effects and should be avoided.

Fact:
Vaccines provide a safe and efficient way to prevent the spread of many communicable diseases. However, vaccines are like any other medication and they may trigger side effects but these are mostly mild.

5 Myth:
Vaccinations can cause certain disorders, such as autism and diabetes, or contribute to the risk of sudden unexpected death in infancy (SUDI), which includes sudden infant death syndrome (SIDS) and fatal sleep accidents.

Fact:
These theories have been extensively investigated and dismissed. Immunisation reactions are generally mild and resolve by themselves without needing medical treatment.

6 Myth:
Immunisation for childhood infectious disease is riskier than the disease.

Fact:
Childhood diseases such as measles and whooping cough (pertussis) are serious and potentially fatal. The risk of complications from disease is much higher than the risks of complications from immunisation.

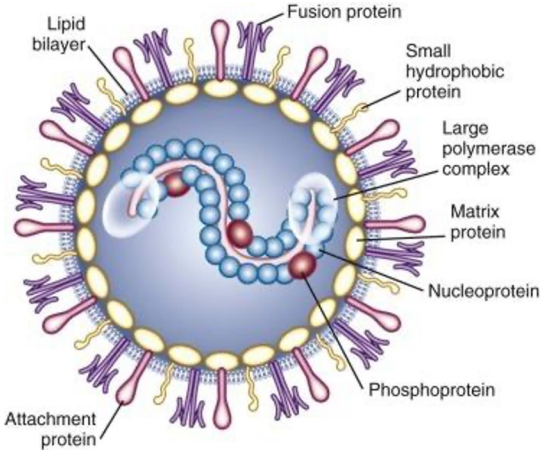
For information on how to respond, go to: https://www.cdc.gov/vaccinesafety/concerns/index.html

Reviewing some vaccines

Respiratory Syncytial Virus

Update

- Single-stranded, negative-sense, RNA genome virus; Genus *Pneumovirus in the family Paramyxoviridae*
- One serotype – two subgroups (A and B)
  - Strains of both groups circulate simultaneously during outbreaks
- Among the most transmissible viruses of humans
- Disease epidemics occur yearly, between October or November and March in temperate regions
- Among the most important causes of hospitalization of elderly and infant patients worldwide



Reference: Scheltema, Nienke M et al. “Global respiratory syncytial virus-associated mortality in young children (RSV GOLD): a retrospective case series.” *The Lancet. Global health* vol. 5,10 (2017): e984-e991. doi:10.1016/S2214-109X(17)30344-3

Update

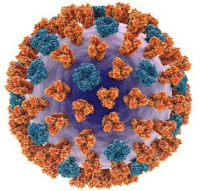
New Immunizations to Protect Against Severe RSV

Who Does It Protect?	Type of Product	Is It for Everyone in Group?
 Adults 60 and over	RSV vaccine	Talk to your doctor first
 Babies	RSV antibody given to baby	All infants entering or born during RSV season. Small group of older babies for second season.
	OR	
 Babies	RSV vaccine given during pregnancy	Can get if you are 32–36 weeks pregnant during September–January

www.cdc.gov/rsv

Influenza Virus

- Single-stranded RNA virus; Orthomyxovirus family
- 3 types
  - Type A, B and C - Only A and B serotypes can cause epidemic human disease
- Influenza A virus subtypes:
  - Hemagglutinin and neuraminidase
    - Immunity to these surface antigens reduces the likelihood of infection and severity of disease.



	Type A	Type B	Type C
Illness severity	Moderate to severe	Milder disease	Mild
Host	Humans and other animals	Humans	Rarely reported in humans
Ages	All age group	Children	

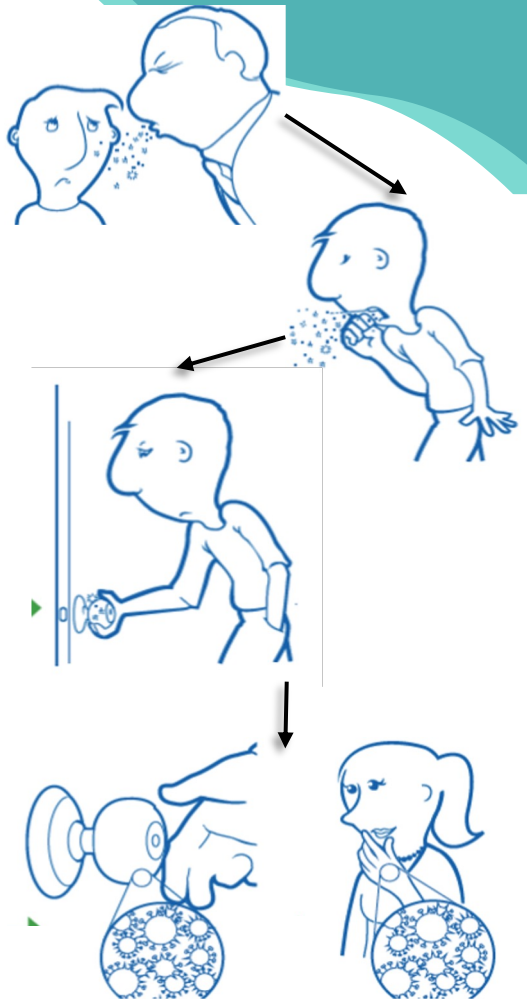
Seasonal flu:

- **Influenza (the flu)**: One of the most common vaccine-preventable illness in the U.S.

- **Peaks in the US from December to February.**
  - Vaccine should be ideally administered by the end of **October,** but should continue to be offered as long as influenza viruses are circulating locally and unexpired vaccines are available.

- Spread from person to person by:
  - Aerosolized respiratory droplets from a cough or sneeze
  - Contact with infected droplets from the nasal secretions or saliva

Incubation period: 1-4 days



Available influenza vaccines:

Traditional flu vaccines: three antigenic components (trivalent): **influenza A (H1N1, H3N2) and B**

Current recommendation: Quadrivalent influenza vaccines **Trivalent + Additional B virus**

Currently available vaccines in the market:

IIV

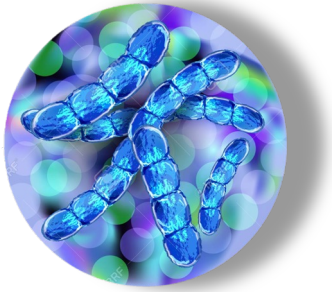
- Inactivated Influenza Vaccine, quadrivalent (IIV4)
- Cell culture–based inactivated influenza vaccine, quadrivalent (CCIIV4)
- Recombinant Influenza Vaccine (RIV4), Egg-Free Influenza Vaccine (Flublok)
- High dose inactivated influenza vaccine, quadrivalent (HD-IIV4)
- Live Attenuated Influenza Vaccine, quadrivalent (LAIV4)

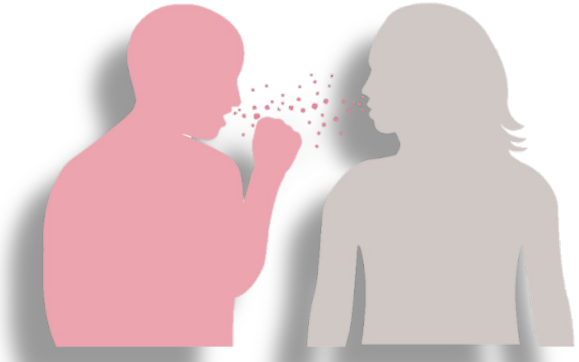
Pneumococcal Disease

Significant cause of illness in adults and children.

- Caused by *Streptococcus pneumoniae*
  - Gram positive coccobacillus bacteria
  - Colonizes the nasopharynx of adults and children

- Over 90 serotypes cause serious illness
  - The 10 most common are responsible for approximately 62% of invasive pneumococcal disease.





Can be transmitted by:

- Airborne respiratory droplets
- Direct contact with infected respiratory secretions

Pneumococcal Vaccines

Pneumococcal vaccines

- **Conjugated**
  - PCV13
    PCV15
    PCV20

- **Polysaccharide**
  - PPSV23

Current valid PPSV23 recommendations in adults

- Recommended for all adults aged 65 years and older
- Age 19 through 64 years with any of the following conditions:

Valid for adults who previously received PCV13 or PCV15 but who have NOT received all recommended doses of PPSV23.

High risk factors:

- Alcoholism
- Chronic cardiovascular disease (congestive heart failure, cardiomyopathies; excluding hypertension)
- Chronic liver disease
- Chronic pulmonary disease (COPD and emphysema, asthma)
- Cigarette Smoking
- Diabetes mellitus
- Cochlear implant
- Cerebrospinal fluid (CSF) leak

Immunocompromising Condition:

- HIV infection
- Asplenia
- Hodgkin disease
- Chronic renal failure, cirrhosis
- Leukemia, lymphoma
- Sickle cell
- Organ transplants

Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

ACIP Recommendations for PCV15 and PCV-20 in Adults

CDC recommends pneumococcal vaccination for

- Adults 65 years old and older
- Adults 19 through 64 years old with certain underlying medical conditions or other risk factors:
  - Alcoholism
  - Cerebrospinal fluid leak
  - Chronic heart/liver/lung disease
  - Chronic renal failure*
  - Cigarette smoking
  - Cochlear implant
  - Congenital or acquired asplenia*
  - Congenital or acquired immunodeficiencies*
  - Diabetes
  - Generalized malignancy*
  - HIV infection*
  - Hodgkin disease*
  - Iatrogenic immunosuppression*
  - Leukemia*
  - Lymphoma*
  - Multiple myeloma*
  - Nephrotic syndrome*
  - Sickle cell disease or other hemoglobinopathies*
  - Solid organ transplants*

* Considered an immunocompromising condition

For those who have never received a pneumococcal vaccine or those with unknown vaccination history

Administer one dose of PCV15 or PCV20.

If **PCV20** is used, their pneumococcal vaccinations are complete.

PCV20

If **PCV15** is used, follow with one dose of PPSV23.

- The recommended interval is at least 1 year.
- The minimum interval is 8 weeks and can be considered in adults with an immunocompromising condition*, cochlear implant, or cerebrospinal fluid leak.
- Their pneumococcal vaccinations are complete.

PCV15 → At least 1 year apart (8 weeks can be considered) → PPSV23

Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

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  - Chronic heart/liver/lung disease
  - Chronic renal failure*
  - Cigarette smoking
  - Cochlear implant
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  - Congenital or acquired immunodeficiencies*
  - Diabetes
  - Generalized malignancy*
  - HIV infection*
  - Hodgkin disease*
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  - Leukemia*
  - Lymphoma*
  - Multiple myeloma*
  - Nephrotic syndrome*
  - Sickle cell disease or other hemoglobinopathies*
  - Solid organ transplants*

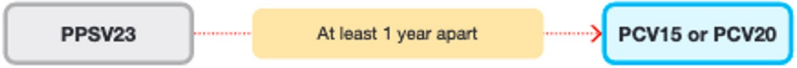
* Considered an immunocompromising condition

For those who previously received PPSV23 but who have not received any pneumococcal conjugate vaccine (e.g., PCV13, PCV15, PCV20)

You may administer one dose of PCV15 or PCV20.

Regardless of which vaccine is used (PCV15 or PCV20):

- The minimum interval is at least 1 year.
- Their pneumococcal vaccinations are complete.



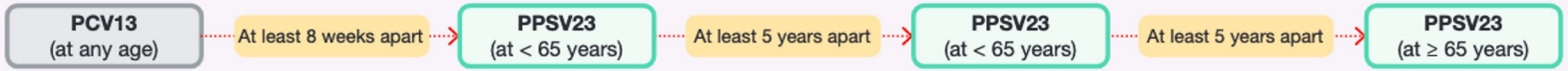
Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

ACIP Recommendations for <u>Immunocompromised</u> Patients

Age 19 – 64 years of age:

- Give 2 doses of Pneumovax 23

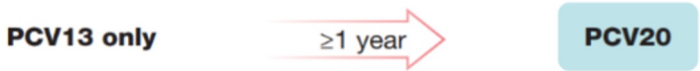
Adults 19 years or older with an immunocompromising condition



CDC recommends 2 doses of PPSV23 before age 65 years and 1 dose of PPSV23** at age 65 years or older.**
Administer a single dose of PPSV23 at least 8 weeks after PCV13 was received.

- If the patient was younger than 65 years old when the first dose of PPSV23 was given and has not turned 65 years old yet, administer a second dose of PPSV23 at least 5 years after the first dose of PPSV23. This is the last dose of PPSV23 that should be given prior to 65 years of age.
- Once the patient turns 65 years old and at least 5 years have passed since PPSV23 was last given, administer a final dose of PPSV23 to complete their pneumococcal vaccinations.

** For adults who have received PCV13 but have not completed their recommended pneumococcal vaccine series with PPSV23, one dose of PCV20 may be used if PPSV23 is not available. PCV20 is used, their pneumococcal vaccinations are complete.



Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

ACIP Recommendations for Immunocompetent Patients

Age 19 – 64 years of age with a cerebrospinal fluid leak or cochlear implant:

Adults 19–64 years old with a cochlear implant or cerebrospinal fluid leak
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥8 weeks → PPSV23
PPSV23 only	≥1 year → PCV20	≥1 year → PCV15
PCV13 only	≥1 year → PCV20	≥8 weeks → PPSV23 Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
PCV13 and 1 dose of PPSV23	≥5 years → PCV20	**No vaccines** recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 65 years old.

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

ACIP Recommendations for Immunocompetent Patients

Age 19 – 64 years of age with chronic health conditions (without a cerebrospinal fluid leak or cochlear implant)

Adults 19–64 years old with chronic health conditions
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥1 year → PPSV23
PPSV23 only	≥1 year → PCV20	≥1 year → PCV15
PCV13† only	≥1 year → PCV20	≥1 year → PPSV23 Review pneumococcal vaccine recommendations again when your patient turns 65 years old.
PCV13† and PPSV23	**No vaccines** are recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 65 years old.	
Chronic health conditions	• Alcoholism • Chronic heart disease, including congestive heart failure and cardiomyopathies • Chronic liver disease	• Chronic lung disease, including chronic obstructive pulmonary disease, emphysema, and asthma • Cigarette smoking • Diabetes mellitus

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines
† Adults with chronic medical conditions were previously not recommended to receive PCV13

Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

ACIP Recommendations for Immunocompetent Patients

Age ≥ 65 years of age

Adults ≥65 years old
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 → ≥1 year† → PPSV23
PPSV23 only at any age	≥1 year → PCV20	≥1 year → PCV15
PCV13 only at any age	≥1 year → PCV20	≥1 year† → PPSV23
PCV13 at any age & **PPSV23** at <65 yrs	≥5 years → PCV20	≥5 years§ → PPSV23

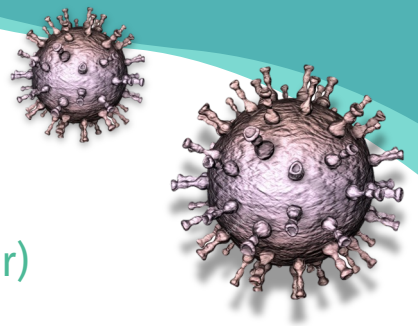
* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

† Consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak

§ For adults with an immunocompromising condition, cochlear implant, or CSF leak, the minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose; for others, the minimum interval for PPSV23 is ≥1 year since last PCV13 dose and ≥5 years since last PPSV23 dose

Reference: CDC (2024) accessed from: www.cdc.gov/pneumococcal/vaccination.html

Varicella Zoster Virus (VZV)



Is a herpes virus that cause two distinct clinical syndromes

- Chickenpox → Primary Infection
- Shingles → Reactivation of the virus (usually many years after)

Highly contagious pathogen

- Can be spread by respiratory transmission through airborne droplets, or by direct contact with lesions.

Incidence before the vaccine:

- Exceeded four million cases annually
- 10,000 annual hospitalizations
- 100-150 annual deaths caused by complications

https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQ_77TLCahR8L80uKb83efQy2qEHOhGMhJvPg&s

Recommended Schedule:

Patients should receive a total of **two doses**

- ➔ Routine schedule for children
  - First dose at 12–15 months old
  - Second dose at 4–6 y/o

- ➔ Schedule for adolescents and adults (≥ 13 years) without evidence of immunity
  - Two doses separated by at least **4 weeks**

Dose and route: 0.5 mL **SC**

→ *The first dose of varicella vaccine should not be given before the child's first birthday because circulating maternal antibodies can interfere with the vaccine*.

Shingles Vaccine:

https://images.app.goo.gl/muW4xCNYjgzP9FgNA

- **RZV vaccine**
  - Inactivated virus vaccine (Recombinant Zoster Vaccine, RZV)
  - **FDA** approved for:
    - Adults ≥ 50 y/o
    - Adults ≥ 18 y/o who are or will be immunosuppressed because of a known disease or therapy.
- Dose and route
  - *0.5 mL* **IM**
  - ***2 dose series at 0 and 2-6 months***

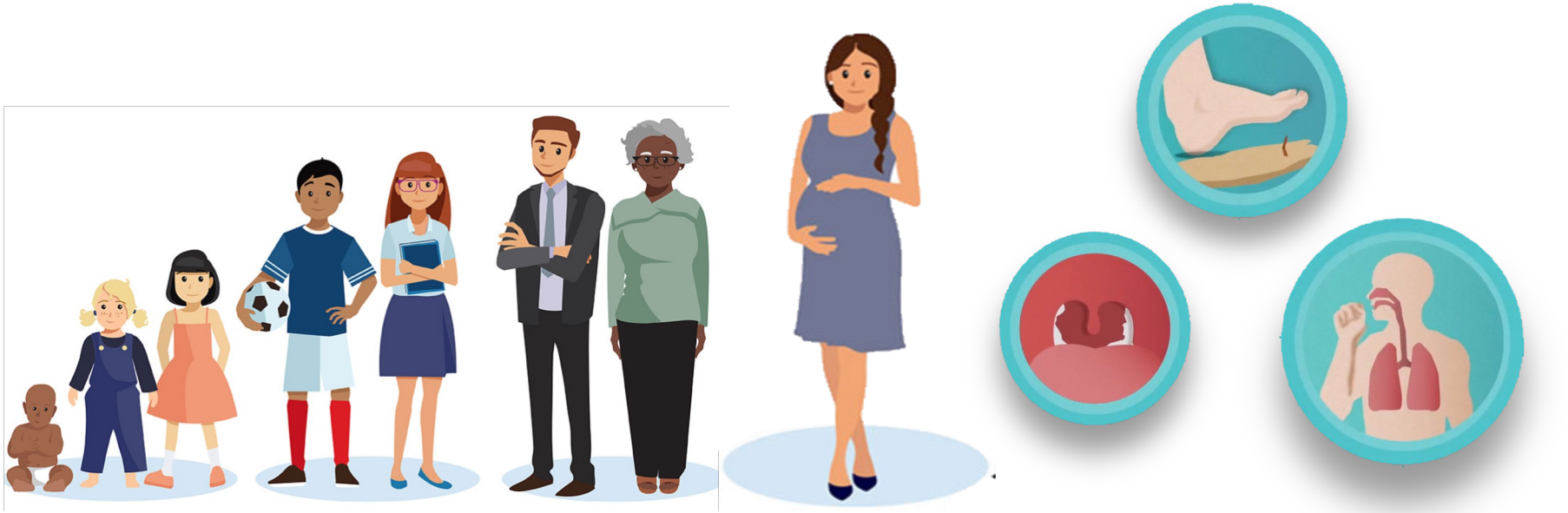
The vaccine is indicated for the **prevention of shingles** NOT for the treatment of active disease.

ACIP Zoster Vaccination Current Recommendations

- RZV is recommended for the prevention of herpes zoster and related complications for immunocompetent adults **aged ≥50 years** and immunocompromised adults **aged ≥19 years.**
    - **Two doses, 2-6 months apart**
        - Irrespective of receiving varicella vaccine, previous history of herpes zoster or received zoster vaccine live (Zostavax).

- The vaccine series does not has to be restarted if more than 6 months have passed since the first dose.

Tetanus, Diphtheria and Pertussis



People of all ages need
TETANUS VACCINES

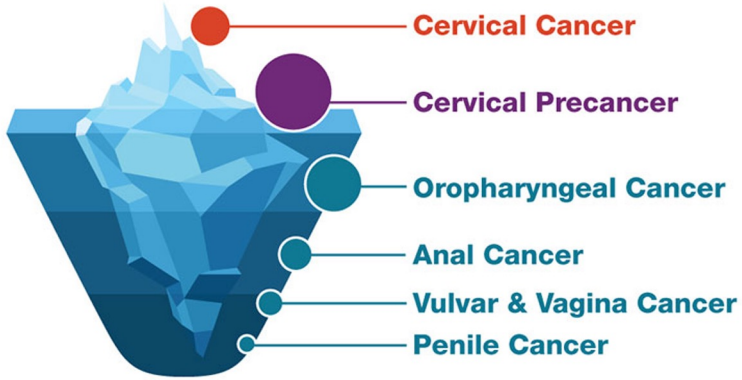
DTaP for young children	Tdap for preteens	Td or Tdap for adults
✓ 2, 4, and 6 months ✓ 15 through 18 months ✓ 4 through 6 years	✓ 11 through 12 years	✓ Every 10 years

www.cdc.gov/tetanus

Human Papillomavirus (HPV)

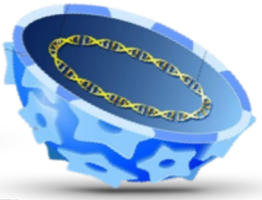
- Small, double-stranded DNA viruses that infect mucosal and cutaneous epithelia inducing cellular proliferation.
- **Capsid:** composed of two proteins, a major (L1) and minor (L2)
- More than 170 types of HPV and is the **most common** sexually transmitted disease.

Cancer caused by HPV is preventable



Human Papillomavirus (HPV)

By the age of *50* more than *80% of American women* will have contracted at least one strain of genital HPV



Human Papilloma Virus

High Risk

Types **16, 18, 31, 33 and 35**

Most cervical, penile, vulvar, vaginal, anal and oropharyngeal cancers and pre-cancers.

****Types 16 and 18****

Most common high-risk types

(>70% of all cervical cancer cases)

Low Risk

Types **6, 11, 40, 42, 43, others**

Cause warts on or around the genitals.

Types **6 and 11** cause 90% of all genital warts and recurrent respiratory papillomatosis.

General Recommendations: HPV

ROUTINE VACCINATION POPULATION

HPV vaccination routinely recommended at age **11–12 years** (can start at age 9 years for anyone with history of sexual abuse).

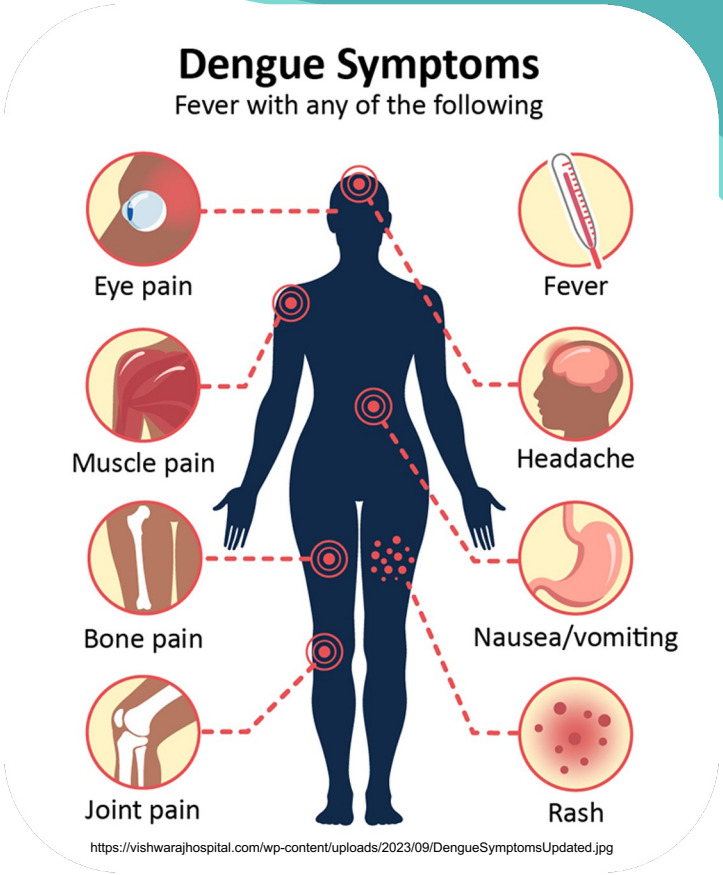
Regimen:

- ➔ If started **before age 15** -> 2 doses (at month 0 and 6-12 months later)
- ➔ If started **at age 15 or older** or if **immunocompromised** -> 3 doses (at months 0, 1-2 and 6)

- **ACIP recommendation**: Catch-up HPV vaccination is recommended for all persons through age 26 years who are not adequately vaccinated.
- **FDA APPROVAL UP TO AGE 45**

Dengue

- Dengue viruses are spread to people through the bite of an infected **Aedes species** (*Ae. aegypti* or *Ae. albopictus*) **mosquito**.
- Dengue is caused by one of any of **four** related viruses: Dengue virus 1, 2, 3, and 4.
- About 1 in 4 people infected with dengue will get sick.
- About 1 in 20 people who get sick with dengue will develop severe dengue.
- **Severe dengue** can result in shock, internal bleeding, and even death.



Dengue Vaccine:

Endemic areas include:
Puerto Rico, US Virgin Islands, American Samoa Federated States of Micronesia, Republic of Marshall Islands, and the Republic of Palau.

- **Dengue tetravalent vaccine**
  - Live vaccine
  - Can prevent dengue illness, hospitalization, and severe dengue from <u>all four dengue viruses</u>.
  - **FDA** approved for:
    - Children and adolescents 9 through 16 years of age with <u>laboratory-confirmed previous dengue</u> infection and living in endemic areas.
- Dose and route
  - *0.5 mL* **SC**
  - ***3 dose series administered at 0, 6 and 12 months***

<u>The vaccine is not indicated for primary prevention.</u>

Opportunities

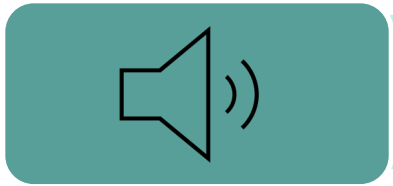
- Expanded Authority and Scope
- Accessibility and Convenience
- Professional Development and Training
- Public Health Impact

Reference: DeMaagd, G., Pugh, A. Pharmacists' Expanding Role in Immunization Practices. U.S.Pharm. 2023;48(10):34-38.

- Educational Role
- Policy and Regulatory
- Expanded Roles in Healthcare Settings
- Immunization Information Systems

Reference: DeMaagd, G., Pugh, A. Pharmacists' Expanding Role in Immunization Practices. U.S.Pharm. 2023;48(10):34-38.

Role of Pharmacists



- Promote

- Educate

- Administrate

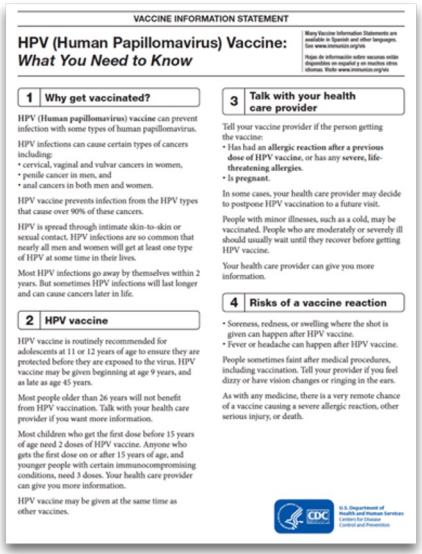
- Advocate

Vaccine Administration: Technique

SC	Inject at a 45˚ angle • Adults: Inject into the fatty tissue over the triceps • Infants: Inject into the anterolateral mid-thigh muscle
IM	Inject at a 90˚ angle • Adults: Inject into the deltoid muscle above the level of the armpit and below the shoulder joint • Infants: Inject into the anterolateral mid-thigh muscle

Reference: Shapiro, K., Bombatch, C., Garrett, S., Drew, A. and Veverka, A., 2023. Rxprep Course Book. California, USA: RxPrep.

Patient counseling and education



VACCINE INFORMATION STATEMENT

HPV (Human Papillomavirus) Vaccine:
What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 Why get vaccinated?

HPV (Human papillomavirus) vaccine can prevent infection with some types of human papillomavirus.

HPV infections can cause certain types of cancers including:
- cervical, vaginal and vulvar cancers in women,
- penile cancer in men, and
- anal cancers in both men and women.

HPV vaccine prevents infection from the HPV types that cause over 90% of these cancers.

HPV is spread through intimate skin-to-skin or sexual contact. HPV infections are so common that nearly all men and women will get at least one type of HPV at some time in their lives.

Most HPV infections go away by themselves within 2 years. But sometimes HPV infections will last longer and can cause cancers later in life.

2 HPV vaccine

HPV vaccine is routinely recommended for adolescents at 11 or 12 years of age to ensure they are protected before they are exposed to the virus. HPV vaccine may be given beginning at age 9 years, and as late as age 45 years.

Most people older than 26 years will not benefit from HPV vaccination. Talk with your health care provider if you want more information.

Most children who get the first dose before 15 years of age need 2 doses of HPV vaccine. Anyone who gets the first dose on or after 15 years of age, and younger people with certain immunocompromising conditions, need 3 doses. Your health care provider can give you more information.

HPV vaccine may be given at the same time as other vaccines.

3 Talk with your health care provider

Tell your vaccine provider if the person getting the vaccine:
- Has had **an allergic reaction after a previous dose of HPV vaccine**, or has any **severe, life-threatening allergies**.
- Is **pregnant**.

In some cases, your health care provider may decide to postpone HPV vaccination to a future visit.

People with minor illnesses, such as a cold, may be vaccinated. People who are moderately or severely ill should usually wait until they recover before getting HPV vaccine.

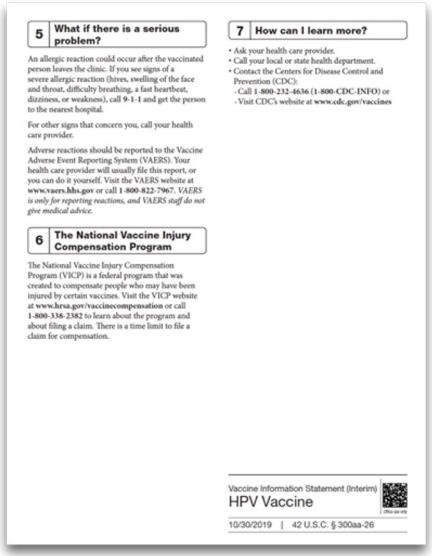
Your health care provider can give you more information.

4 Risks of a vaccine reaction

- Soreness, redness, or swelling where the shot is given can happen after HPV vaccine.
- Fever or headache can happen after HPV vaccine.

People sometimes faint after medical procedures, including vaccination. Tell your provider if you feel dizzy or have vision changes or ringing in the ears.

As with any medicine, there is a very remote chance of a vaccine causing a severe allergic reaction, other serious injury, or death.



5 What if there is a serious problem?

An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call **9-1-1** and get the person to the nearest hospital.

For other signs that concern you, call your health care provider.

Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at **www.vaers.hhs.gov** or call **1-800-822-7967**. *VAERS is only for reporting reactions, and VAERS staff do not give medical advice.*

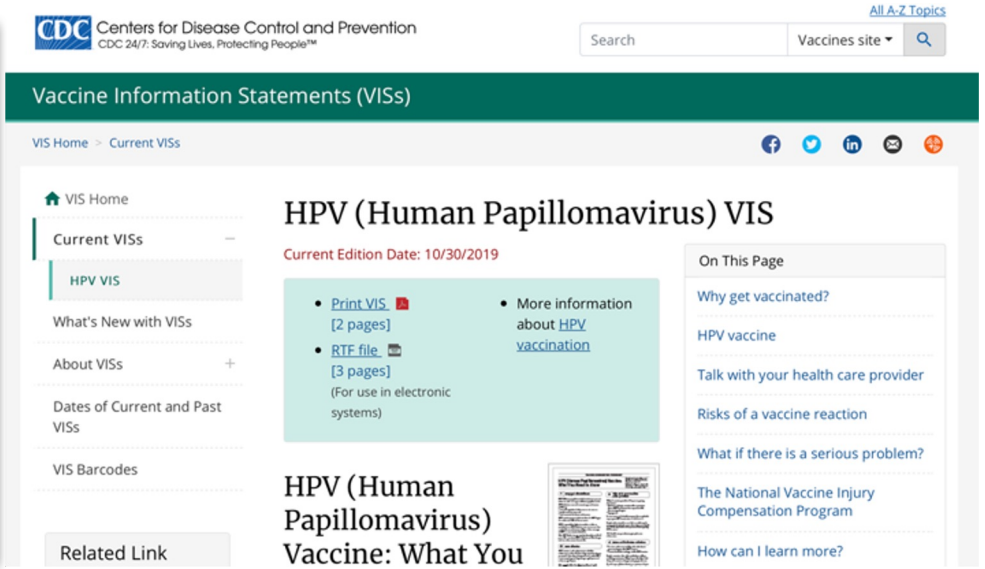
6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines. Visit the VICP website at **www.hrsa.gov/vaccinecompensation** or call **1-800-338-2382** to learn about the program and about filing a claim. There is a time limit to file a claim for compensation.

7 How can I learn more?

- Ask your health care provider.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636** (**1-800-CDC-INFO**) or
  - Visit CDC's website at **www.cdc.gov/vaccines**

Vaccine Information Statement (Interim)
HPV Vaccine
10/30/2019 | 42 U.S.C. § 300aa-26



CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

All A-Z Topics | Search | Vaccines site

Vaccine Information Statements (VISs)

VIS Home > Current VISs

VIS Home
Current VISs
HPV VIS
What's New with VISs
About VISs
Dates of Current and Past VISs
VIS Barcodes
Related Link

HPV (Human Papillomavirus) VIS

Current Edition Date: 10/30/2019

- Print VIS [2 pages]
- RTF file [3 pages] (For use in electronic systems)
- More information about HPV vaccination

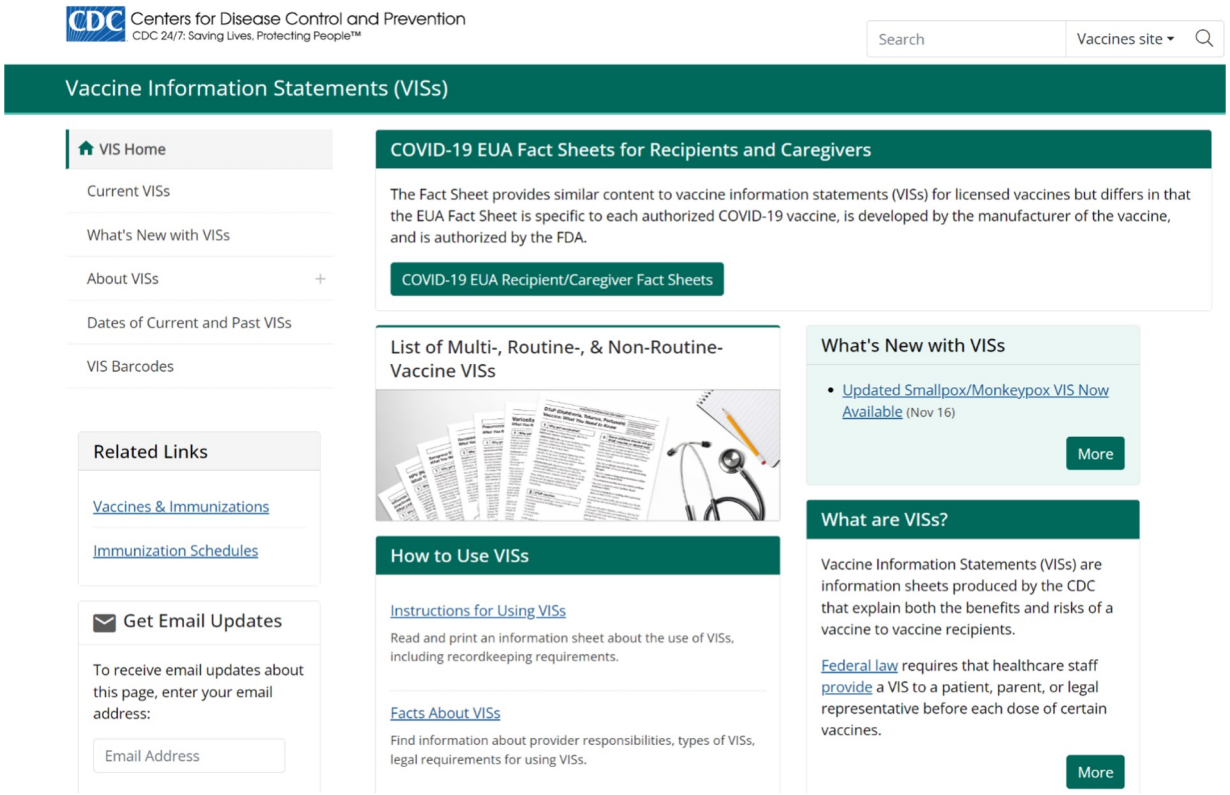
HPV (Human Papillomavirus) Vaccine: What You

On This Page
- Why get vaccinated?
- HPV vaccine
- Talk with your health care provider
- Risks of a vaccine reaction
- What if there is a serious problem?
- The National Vaccine Injury Compensation Program
- How can I learn more?

Important: The patient should receive a VIS per EACH vaccine administered (before administration).

https://www.cdc.gov/vaccines/hcp/vis/index.html

Vaccine Information Statements



VISs can be found on the CDC and Immunization Action Coalition websites.

Documentation

- National Vaccine Injury Compensation Program (VICP) Act passed in 1986
- Required documentation for all vaccines covered by VICP:
  - Date vaccine administered
  - Vaccine manufacturer
  - Vaccine lot number
  - Name, address, title of person administering the vaccine
  - Date printed on the VIS
  - Date the VIS is given to the vaccine recipient or the recipient's legal representative
- Any ADE should be reported through the VAERS system

Reference: VAERS. Vaccine Adverse Event Reporting System. Accessed from https://vaers.hhs.gov/index.html on June, 2024.

VIS= Vaccine Information Statement

Staying Up to Date

Resources:

1. APhA Immunization Center: www.pharmacist.com/immunization-center

2. Immunization Action Coalition: https://www.immunize.org/

3. MMWR: www.cdc.gov/mmwr

4. Centers for Disease Control and Prevention Vaccine safety: www.cdc.gov/vaccinesafety/index.html

5. World Health Organization: https://www.who.int/health-topics/vaccines-and-immunization#tab=tab_1

Thanks for you attention!

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