

Immunizations/Vaccines

Laurie Finke, RN MSN

Clinic Director and Ambulatory Chief Nursing Officer

Introduction

- ▶ I am a RN Director and Chief Nursing Officer at Mercyhealth. In my role, I routinely work with clinics in educating patients of the importance of immunizations.
- ▶ Getting vaccinated is one of the safest ways for you to protect your health. Vaccines help prevent getting and spreading serious diseases that could result in poor health, missed work, medical bills, and not being able to care for family.
- ▶ Because of age, health conditions, or other factors, some people should not get certain vaccines or should wait before getting them. Talk to your health care provider for recommendations on vaccines for you.

Reference: [Recommended Vaccines for Adults | CDC](#)

Highlights of this presentation

- ▶ Influenza Vaccine
- ▶ RSV Vaccine
- ▶ COVID Vaccine
- ▶ Pneumococcal Vaccine
- ▶ Childhood immunizations
- ▶ Adolescent immunizations

Influenza Vaccine

- ▶ CDC recommends everyone 6 months of age and older, with rare exceptions, receive an updated 2024-2025 flu vaccine to reduce the risk of influenza and its potentially serious complications this fall and winter.
- ▶ Updated 2024-2025 flu vaccines will all be trivalent and will protect against an H1N1, H3N2 and a B/Victoria lineage virus. The composition of this season's vaccine compared to last has been updated with a new [influenza A\(H3N2\) virus](#).
- ▶ Most people need only one dose of the flu vaccine each season. While CDC recommends flu vaccination as long as influenza viruses are circulating, September and October remain the best times for most people to get vaccinated.
- ▶ A variety of flu vaccines are available
 - ▶ Fluarix- indicated for 6 months and older
 - ▶ Fluzone- indicated for 6 months and older
 - ▶ Fluzone High Dose- indicated for 65 years and older
 - ▶ Flublok- egg free vaccine indicated for 18 years and older
 - ▶ Flumist- nasal application/non-injection, indicated 2-49 years (not consistently available at all locations)

Reference: www.cdc.gov

RSV Vaccine

▶ **RSV is a monoclonal antibody vaccine**

- RSV is a common respiratory virus that usually causes mild, cold-like symptoms. RSV spreads through coughing, sneezing, contact (like kissing the face of a child who has RSV), and contaminated surfaces. Transmission occurs most often during RSV season, which generally starts in the fall and peaks in the winter in most of the United States.
- Infants and older adults are more likely to develop severe RSV and need hospitalization.
- CDC recommends immunizations to protect infants, some young children, and older adults.

RSV Vaccine types

- ▶ ***Beyfortus®*** - Infants and young children- is indicated per CDC recommendations for infants under 8 months of age born during or entering their first RSV season. It is also indicated for children up to 19 months who are at increased risk of severe RSV disease and entering their second RSV season.
 - ▶ Vaccine is needed only 1 season (1 dose) for most infants /children. An additional vaccine is needed the second season for high risk infants and children.
- ▶ ***AREXVY (GSK)*** – Adults 60 and older - Indicated for active immunization for the prevention of lower respiratory tract disease caused by respiratory syncytial virus (RSV) in individuals 60 years of age and older.
 - ▶ Vaccine is needed only once. This is not a repeat vaccine every season on an annual basis.
- ▶ ***ABRYSVO (Pfizer)*** – Pregnant women- Indicated for active immunization of pregnant individuals at 32-36 weeks gestational age for the prevention of lower respiratory tract disease caused by RSV.

Reference: www.cdc.gov

COVID Vaccine

- ▶ CDC recommends everyone ages 6 months and older receive an updated 2024-2025 COVID-19 vaccine to protect against the potentially serious outcomes of COVID-19 this fall and winter whether or not they have ever previously been vaccinated with a COVID-19 vaccine. Updated COVID-19 vaccines will be available from Moderna, Novavax, and Pfizer.
- ▶ COVID vaccine is recommended annually (once per year, preferred during peak season)
- ▶ Vaccine types
 - ▶ Moderna COVID-19 Vaccine 2024-2025 Formula is indicated for 6 months through 11 years
 - ▶ Moderna SPIKEVAX® is indicated for 12 years and older
 - ▶ Pfizer-BioNTech COVID-19 Vaccine is indicated for individuals 5 through 11 years of age
 - ▶ Pfizer COMIRNATY (30 mcg/0.3mL glass pre-filled syringe presentation) is indicated for individuals 12 years of age and older.
 - ▶ Novavax COVID-19 Vaccine, Adjuvanted is indicated for individuals 12 years of age and older.

Reference: www.cdc.gov

Pneumococcal Vaccine

- ▶ Vaccines help prevent [pneumococcal disease](#), which is any type of illness caused by *Streptococcus pneumoniae* bacteria. There are two kinds of pneumococcal vaccines recommended in the United States:
 - Pneumococcal conjugate vaccines (PCVs, specifically PCV15 and PCV20)
 - Pneumococcal polysaccharide vaccine (PPSV23)
- ▶ Childhood recommendations
 - ▶ CDC recommends **PCV15 or PCV20** for children younger than 5 years old.
 - ▶ Children 2 through 18 years old with certain risk conditions may need more pneumococcal vaccines. It depends on which pneumococcal vaccines they already received and when.
- ▶ Adult recommendations
 - ▶ CDC recommends **PCV15 or PCV20** for adults who never received a PCV and are
 - Ages 65 years or older
 - Ages 19 through 64 years old with certain risk conditions

Reference: www.cdc.gov

Available locations to receive seasonal Vaccinations

Health Care Hospitals and Clinics

- ▶ Healthcare organizations like Mercyhealth and SSM
- ▶ For Mercyhealth contact your primary care doctor's office to schedule a nurse visit to receive your vaccine. If you are hospitalized, the physician may recommend to vaccinate while you are in the hospital if appropriate.

Pharmacies and other options

- ▶ Retail pharmacies including Mercyhealth pharmacies, Walgreens, CVS, HyVee, Sam's Club, and other local retail pharmacies offer adult immunizations- usually with an age of 12 years and older.
- ▶ Local Health Department

Childhood Immunizations

Vaccinations due for children prior to the age of 2 (WCHQ focus)

- ▶ Four DTaP: tetanus, diphtheria, and pertussis prevention
- ▶ Three IPV: polio prevention
- ▶ One MMR: measles, mumps, and rubella prevention
- ▶ Three HiB: Haemophilus influenzae type B prevention
- ▶ Three Hep B: Hepatitis B prevention
- ▶ One VZV: varicella-zoster virus or chicken pox prevention
- ▶ Four PCV: pneumococcal or pneumonia prevention

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

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).

Vaccine and other immunizing agents	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs	
Respiratory syncytial virus (RSV-mAb [Nirsevimab])	1 dose depending on maternal RSV vaccination status, See Notes					1 dose (8 through 19 months), See Notes												
Hepatitis B (HepB)	1 st dose	← 2 nd dose →			← 3 rd dose →													
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)			1 st dose	2 nd dose	See Notes													
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)			1 st dose	2 nd dose	3 rd dose			← 4 th dose →				5 th dose						
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes			← 3 rd or 4 th dose, See Notes →										
Pneumococcal conjugate (PCV15, PCV20)			1 st dose	2 nd dose	3 rd dose			← 4 th dose →										
Inactivated poliovirus (IPV <18 yrs)			1 st dose	2 nd dose	← 3 rd dose →							4 th dose				See Notes		
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)					1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)													
Influenza (IIV4)					Annual vaccination 1 or 2 doses								or		Annual vaccination 1 dose only			
Influenza (LAIV4)											Annual vaccination 1 or 2 doses		or		Annual vaccination 1 dose only			
Measles, mumps, rubella (MMR)					See Notes	← 1 st dose →					2 nd dose							
Varicella (VAR)						← 1 st dose →					2 nd dose							
Hepatitis A (HepA)					See Notes	2-dose series, See Notes												
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)														1 dose				
Human papillomavirus (HPV)															See Notes			
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)			See Notes										1 st dose		2 nd dose			
Meningococcal B (MenB-4C, MenB-FHbp)														See Notes				
Respiratory syncytial virus vaccine (RSV [Abrysvo])														Seasonal administration during pregnancy, See Notes				
Dengue (DEN4CYD; 9-16 yrs)													Seropositive in endemic dengue areas (See Notes)					
Mpox																		

Range of recommended ages for all children
 Range of recommended ages for catch-up vaccination
 Range of recommended ages for certain high-risk groups
 Recommended vaccination can begin in this age group
 Recommended vaccination based on shared clinical decision-making
 No recommendation/not applicable

Adolescent Immunizations

- ▶ One meningococcal vaccine on or between the 11th and 13th birthdays
 - ▶ Vaccines can help prevent [meningococcal disease](#), which is any type of illness caused by *Neisseria meningitidis* bacteria. Meningococcal disease refers to any illness caused by bacteria called *Neisseria meningitidis*. These illnesses are often severe, can be deadly, and include infections of the lining of the brain and spinal cord (meningitis) and bloodstream. Keeping up to date with recommended vaccines is the best protection against meningococcal disease.
- ▶ One Tdap on or between the 10th and 13th birthdays
 - ▶ **Tdap vaccine** can prevent **tetanus**, **diphtheria**, and **pertussis**. Diphtheria and pertussis spread from person to person. Tetanus enters the body through cuts or wounds. **Tetanus** causes painful stiffening of the muscles. Tetanus can lead to serious health problems, including being unable to open the mouth, having trouble swallowing and breathing, or death. **Diphtheria** can lead to difficulty breathing, heart failure, paralysis, or death. **Pertussis**, also known as “whooping cough,” can cause uncontrollable, violent coughing that makes it hard to breathe, eat, or drink. Pertussis can be extremely serious especially in babies and young children, causing pneumonia, convulsions, brain damage, or death. In teens and adults, it can cause weight loss, loss of bladder control, passing out, and rib fractures from severe coughing
- ▶ HPV vaccine prior to the age of 15
 - ▶ HPV vaccination is recommended at ages 11-12 years. HPV vaccines can be given starting at age 9 years. All preteens need HPV vaccination, so they are protected from HPV infections that can cause cancer later in life.

Table 3 Recommended Child and Adolescent Immunization Schedule by Medical Indication, United States, 2024

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*		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 <200mm	≥15% and ≥200mm						
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*								
DTaP/Tdap	DTaP									
	Tdap: 1 dose each pregnancy									
Hib		HSCT: 3 doses	See Notes			See Notes				
Pneumococcal										
IPV										
COVID-19		See Notes								
IIV4										
LAIV4							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									
<div><div><div></div><div>Recommended for all age-eligible children who lack documentation of a complete vaccination series</div></div><div><div></div><div>Not recommended for all children, but is recommended for some children based on increased risk for or severe outcomes from disease</div></div><div><div></div><div>Recommended for all age-eligible children, and additional doses may be necessary based on medical condition or other indications. See Notes.</div></div><div><div></div><div>Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction</div></div><div><div></div><div>Contraindicated or not recommended *Vaccinate after pregnancy, if indicated</div></div><div><div></div><div>No Guidance/ Not Applicable</div></div></div>										

^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 LAIV4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Any Questions?

- ▶ What are topics of interest for future health related presentations?