



EPIC® Immunization 2024 Update

Education for Women's Health Care Providers

Making a Strong Recommendation for Vaccines in Your Practice

Acknowledgements

EPIC® is presented by:

Georgia OB/Gyn Society

Georgia Chapter – American Academy of Pediatrics

Ga. Dept. of Public Health/Immunization Program

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In Cooperation with:

Georgia Academy of Family Physicians

Georgia Chapter - American College of Physicians

Georgia OB/Gyn Society

Faculty Disclosure Information

In accordance with ACCME and ANCC-COA Standards, all faculty members are required to disclose to the program audience any real or apparent conflict of interest to the content of their presentation.

This presentation will include the most current ACIP recommendations for frequently used vaccines but is not a comprehensive review of all available vaccines.

Some ACIP recommendations for the use of vaccines have not currently been approved by the FDA.

Detailed information regarding all ACIP Recommendations is available at **www.cdc.gov/vaccines/acip/recs/index.html**

*Accreditation Council for Continuing Medical Education

*American Nurses Credentialing Center Commission on Accreditation

Objectives

At the end of this presentation, attendees will be able to:

- Discuss three reasons why it is important to provide vaccines at women's health practices
- Interpret the Adult Immunization Schedule
- Make a strong recommendation for vaccines in pregnant people
- Summarize the most recent CDC recommendations for storage and handling of vaccines
- State a plan to incorporate vaccines into the workflow of the practice
- Assess an immunization financial analysis

Why is it important for a women's health practice to provide vaccines?

- ACOG and ACNM recommends assessments of immunization status as part of the routine screening
- Your practice may be the **only** source of health care for many of your patients
- You can decrease the likelihood of influenza during pregnancy and the newborn period (**Influenza vaccine**)
- You can protect pregnant women and newborns against pertussis (**Tdap vaccine**)
- You can prevent infection of 9 types of HPV for people through 45 years of age (**HPV vaccine**)
- You can protect women at risk for hepatitis B infection and prevent hepatitis B in newborns (**Hepatitis B vaccine**)
- You can prevent **COVID** in your patients & their newborns

Advisory Committee on Immunization Practices (ACIP)

15 voting members with expertise in one or more of the following:

- Vaccinology
- Immunology
- Infectious diseases
- Pediatrics
- Internal Medicine
- Preventive medicine
- Public health
- Consumer perspectives and/or social and community aspects of immunization programs

ACIP develops recommendations and schedules for the use of licensed vaccines



2024 Childhood and Adolescent Immunization Schedules

- Recommended Schedule for Children Ages 0-18 Years
- Catch-up Schedule
- Vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications

Changes

- Clarification of the charts
- Additional information in the Notes section

READ THE FOOTNOTES TO ACCESS SPECIFIC VACCINE ADMINISTRATION DETAILS!

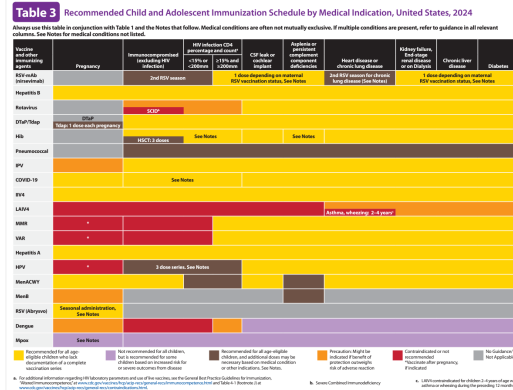
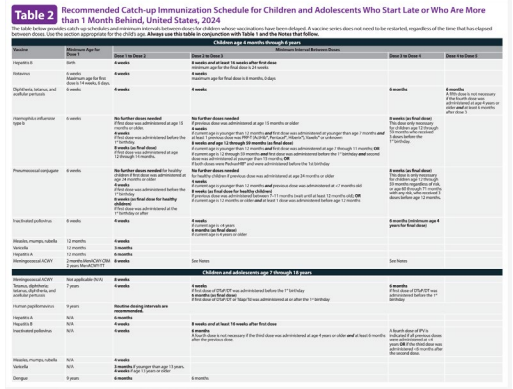
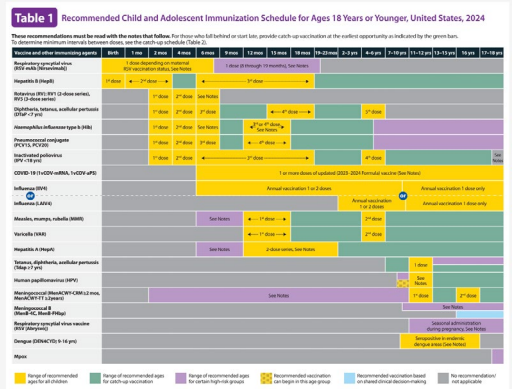


Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2024

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
COVID-19	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)			
Influenza inactivated (IIV4) or Influenza recombinant (RIV4)	1 dose annually			
Influenza live, attenuated (LAIV4)	1 dose annually			
Respiratory Syncytial Virus (RSV)	Seasonal administration during pregnancy. See Notes.			≥60 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 healthcare 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, 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)	2 or 3 doses depending on vaccine and indication, see notes for booster recommendations			
	19 through 23 years			
Haemophilus influenzae type b (Hib)	1 or 3 doses depending on indication			
Mpox				

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 recommendation/Not applicable

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

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.

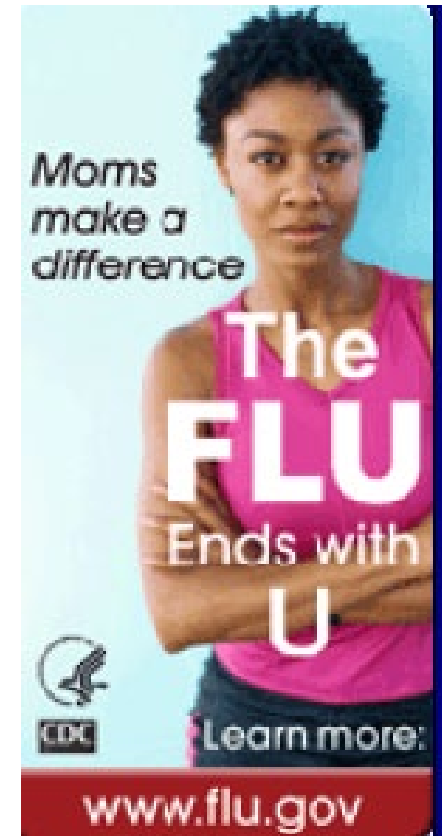
VACCINE	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count		Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease; alcoholism*	Diabetes	Healthcare Personnel ^b						
			<15% or <200mm ³	≥15% and ≥200mm ³													
COVID-19		See Notes															
IIV4 or RIV4	1 dose annually																
LAIV4					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											
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						

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 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
^aVaccinate after pregnancy, if indicated
No Guidance/ Not Applicable

^a. Precaution for LAIV4 does not apply to alcoholism.
 ^b. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.
 ^c. Hematopoietic stem cell transplant.

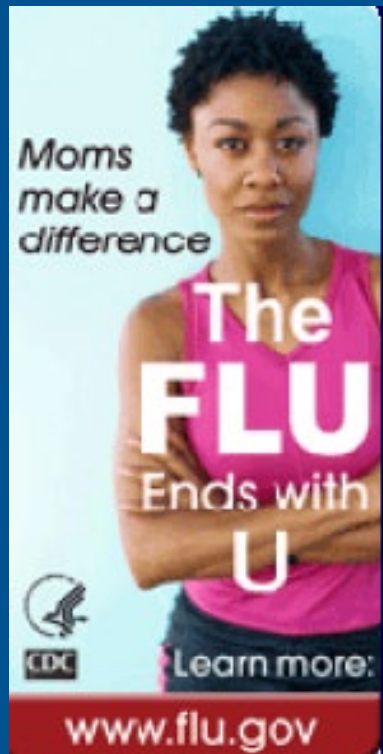
Influenza

- Affects ~8% of the United States population every flu season (spreads easily)
- Responsible for significant illness, hospitalizations and deaths every year
- In the U.S., the influenza season typically occurs from October—May with peak activity occurring from December—March



<https://www.cdc.gov/flu/about/keyfacts.htm>

Influenza in pregnancy



- Begins with abrupt onset of fever, headache, myalgia, and malaise; with non-productive cough, sore throat, and nasal discharge
- Pregnant women disproportionately experience severe sequelae including pneumonia, cardiopulmonary complications, preterm birth and death
 - Risk increases with each trimester

Influenza Vaccine in Pregnancy



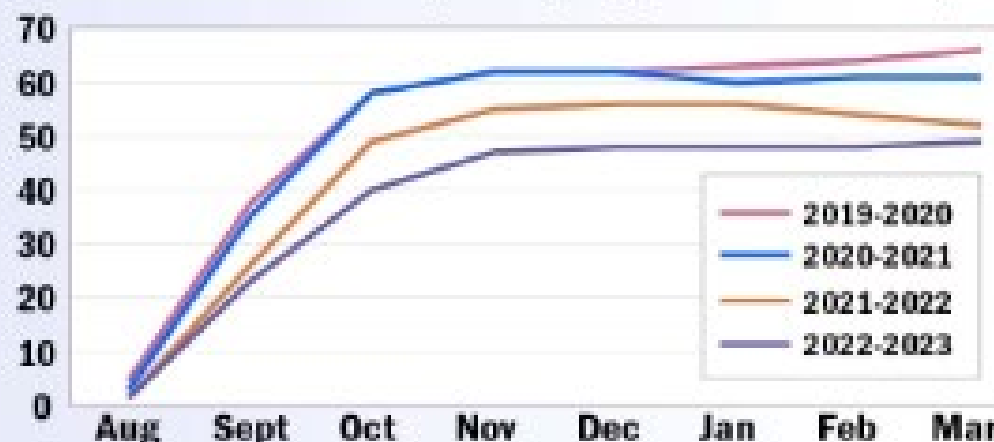
- ACIP recommends that all persons 6 months and older, including pregnant women, receive the influenza vaccine starting in the fall of each year. For the 2023-24 flu season, ACIP also recommended that flu vaccine can also be considered for people in the 3rd trimester of pregnancy as early as July or August (to help protect infants from flu after birth)
- In the 2022-23 flu season, only about 49% of pregnant women received the influenza vaccine.

Less than half of pregnant people protect themselves and their babies against flu. Time to bump it up!

#FIGHT FLU

During the 2022-2023 flu season, an estimated 49% of pregnant people in the U.S. protected themselves and their babies from flu by getting a flu shot. **This leaves more than half of pregnant people and their babies, unprotected from flu.**

Influenza Vaccination Coverage Among Pregnant Persons in U.S., Overall



If you're pregnant, a flu shot:

- is recommended at any time during your pregnancy.
- can reduce your risk of getting sick or being hospitalized with flu
- can protect your baby from flu for several months after birth



Source: Influenza Vaccination Coverage Among Pregnant Persons, United States (cdc.gov)

05/24/2024

Get vaccinated to protect yourself and your baby.

www.cdc.gov/flu/fluview/dashboard/vaccination-coverage-pregnant

Reasons why pregnant women do not receive influenza vaccine

- Lack of knowledge about seriousness of influenza
- Never have received influenza vaccine in the past
- Safety concerns about the vaccine
- Fear of needles
- Lack of insurance or access to care
- General mistrust of medical profession
- **Medical provider did not recommend influenza vaccine**

Protecting pregnant people & infants against influenza: A landscape review of influenza vaccine hesitancy during pregnancy and strategies for vaccine promotion

Annette K. Regan  & Alice Fiddian-Green 

Article: 2156229 | Received 05 Oct 2022, Accepted 05 Dec 2022, Published online: 19 Dec 2022

 Cite this article  <https://doi.org/10.1080/21645515.2022.2156229>  Check for updates

Review of existing research on influenza vaccine hesitancy in pregnancy (Inception to September 2022)

Factors associated with prenatal vaccine hesitancy

Vaccine access and convenience

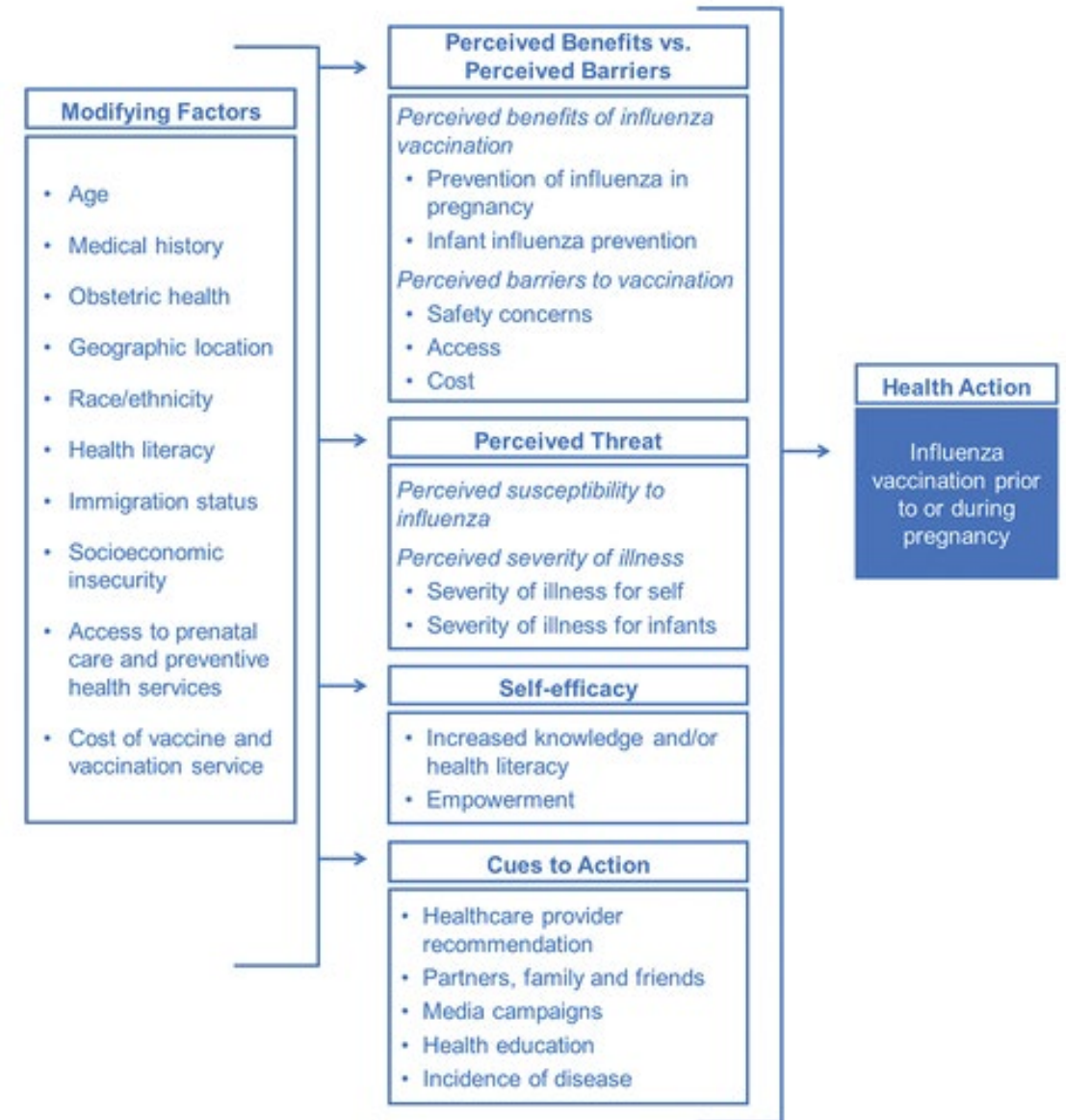
Individual and cultural values

Health literacy

Social influences

Emotions regarding vaccination

Perceptions of vaccine risk and benefit and personal vaccination history



Benefits of Influenza Vaccination during Pregnancy



- Reduces influenza related complications in pregnant women and their infants.
- A [2018 study](#) showed that getting a flu shot reduced a pregnant person's risk of being hospitalized with flu by an average of 40%
- Vaccinating the mother protects newborns against influenza. This is the only way of providing antibody to the newborn.
- No evidence of teratogenicity
- No evidence of harm to pregnant women or their infants even with vaccines containing thimerosal

Frequently Asked Questions About Influenza Vaccine During Pregnancy

Why should pregnant women get a flu shot?

Changes in the immune system, heart, and lungs during pregnancy make pregnant women more prone to severe illness from flu and raises the risk for complications.

Is it safe for pregnant women and their unborn babies to get a flu shot?

YES

What side effects have pregnant women experienced from flu shots?

The most common side effects are the same as other vaccine recipients (soreness, redness, swelling at injection site), fainting, headache, fever, muscle aches, nausea, fatigue.

Can pregnant women with egg allergies get vaccinated?

YES. People with egg allergy may get any vaccine (egg-based or non-egg-based) that is otherwise appropriate for their age and health status. (CDC Recommendations 2023-24 Flu season)

More Frequently Asked Questions About Influenza Vaccine During Pregnancy

How is the safety of influenza vaccination of pregnant women monitored?

The CDC and FDA conduct ongoing safety monitoring of all vaccines licensed for use in the United States using two monitoring systems:

- The Vaccine Adverse Event Reporting System (**VAERS**) monitors reported problems following vaccination.
- Vaccine Safety Data Link (**VSD**) is a collaboration between CDC and nine healthcare organizations that allow ongoing monitoring and proactive searches of vaccine-related data .

FDA Recommended Influenza Antigens for 2023-2024 Season in the U.S.

Egg-based influenza vaccines	Cell culture–based inactivated (ccIIV4) and recombinant (RIV4) influenza vaccines
- influenza A/Victoria/4897/2022 (H1N1)pdm09-like virus - an influenza A/Darwin/9/2021 (H3N2)-like virus - an influenza B/Austria/1359417/2021 (Victoria lineage)-like virus - an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus	- influenza A/Wisconsin/67/2022 (H1N1)pdm09-like virus - an influenza A/Darwin/6/2021 (H3N2)-like virus - an influenza B/Austria/1359417/2021 (Victoria lineage)-like virus - an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus

ACIP recommends annual influenza vaccine for all persons 6 months of age and older who do not have contraindications.

Influenza Vaccine Products for the 2023–2024 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation) ¹	How Supplied	Mercury Content (mcg Hg/0.5mL)	Age Range	CVX Code	Vaccine Product Billing Code ²
						CPT
AstraZeneca	FluMist (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	149	90672
GSK	Fluarix (IIV4)	0.5 mL (single-dose syringe)	0	6 months & older ³	150	90686
	FluLaval (IIV4)	0.5 mL (single-dose syringe)	0	6 months & older ³	150	90686
Sanofi	Flublok (RIV4)	0.5 mL (single-dose syringe)	0	18 years & older	185	90682
	Fluzone (IIV4)	0.5 mL (single-dose syringe)	0	6 months & older ³	150	90686
		0.5 mL (single-dose vial)	0	6 months & older ³	150	90686
		5.0 mL multi-dose vial (0.25 mL dose)	25	6 through 35 months ³	158	90687
		5.0 mL multi-dose vial (0.5 mL dose)	25	6 months & older	158	90688
	Fluzone High-Dose (IIV4-HD)	0.7 mL (single-dose syringe)	0	65 years & older	197	90662
Seqirus	Afluria (IIV4)	5.0 mL multi-dose vial (0.25 mL dose)	24.5	6 through 35 months ³	158	90687
		5.0 mL multi-dose vial (0.5 mL dose)	24.5	3 years & older	158	90688
		0.5 mL (single-dose syringe)	0	3 years & older ³	150	90686
	Fluad (aIIV4)	0.5 mL (single-dose syringe)	0	65 years & older	205	90694
	Flucelvax (ccIIV4)	0.5 mL (single-dose syringe)	0	6 months & older ³	171	90674
		5.0 mL multi-dose vial (0.5 mL dose)	25	6 months & older ³	186	90756

NOTES

1. IIV4 = egg-based quadrivalent inactivated influenza vaccine (injectable); where necessary to refer to cell culture-based vaccine, the prefix "cc" is used (e.g., ccIIV4); RIV4 = quadrivalent recombinant hemagglutinin influenza vaccine (injectable); aIIV4 = adjuvanted quadrivalent inactivated influenza vaccine.

2. An administration code should always be reported in addition to the vaccine product code. Note: Third party payers may have specific policies and guidelines that might require providing additional information on their claim forms.

3. Dosing for infants and children age 6 through 35 months:

- Afluria 0.25 mL
- Fluarix 0.5 mL
- Flucelvax 0.5 mL
- FluLaval 0.5 mL
- Fluzone 0.25 mL or 0.5 mL

4. Afluria is approved by the Food and Drug Administration for intramuscular administration with the PharmaJet Stratis Needle-Free Injection System for persons age 18 through 64 years.



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

www.immunize.org/catg.d/p4072.pdf

Item #P4072 (8/5/2023)



Scan for PDF

Live, Attenuated Influenza Vaccine (LAIV4)

FluMist® MedImmune (Nasal Spray)

Contraindications to LAIV include:

- Children 2-4 yrs. diagnosed with asthma
- Children and adolescents receiving aspirin-containing medications – potential risk for Reye syndrome
- Persons who are Immunocompromised due to any cause, including caused by medications, other causes (asplenia)
- Close contacts and caregivers of severely immunosuppressed persons
- Persons who have received influenza antiviral medications within the previous days (dependent on antiviral)
- Persons with a cranial CSF leak; people with cochlear implants
- Persons with a severe allergic reaction to any component of the vaccine or to a previous dose of any influenza vaccine (exception for allergy to egg)
- Pregnancy

Co-administration

- Inactivated influenza vaccines (IIV4s) and RIV4 may be administered simultaneously or sequentially with other inactivated vaccines or live vaccines
 - Injectable vaccines that are given concomitantly should be administered at separate anatomic sites
- LAIV4 can be administered simultaneously with other live or inactivated vaccines
 - If two live vaccines are not given simultaneously, then at least 4 weeks should pass between vaccines
- Guidance concerning administration of COVID-19 vaccines with other vaccines indicates that these vaccines may be given with other vaccines, including influenza vaccines.
 - Providers should be aware of the potential for increased reactogenicity with coadministration, more likely with the adjuvanted or high dose IIV4s - recommended in persons 65+ yrs

Influenza Vaccines Preference for Older Adults

ACIP recommends that adults aged ≥ 65 years preferentially receive any one of the following higher dose or adjuvanted influenza vaccines:

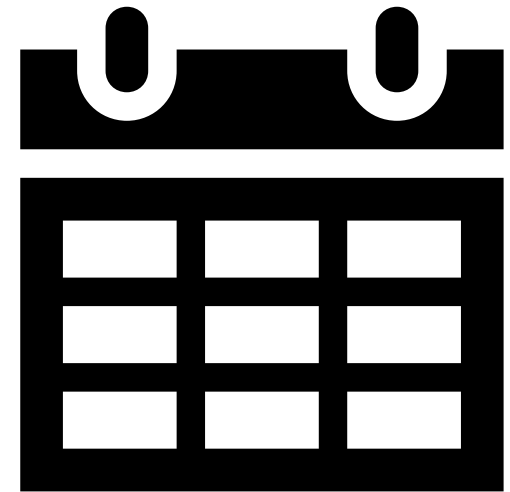
- quadrivalent high-dose inactivated influenza vaccine (HD-IIV4),
- quadrivalent recombinant influenza vaccine (RIV4), or
- quadrivalent adjuvanted inactivated influenza vaccine (aIIV4).

If none of these three vaccines is available at an opportunity for vaccine administration, then any other age-appropriate influenza vaccine should be used.

No preference is expressed for any one of these three vaccines.

Timing of Influenza Vaccination

- Influenza vaccines may be available in July or August, but vaccination is recommended during September or October
- Vaccination should continue as long as influenza viruses are circulating and unexpired vaccine is available



Making a strong recommendation

Making a Strong Flu Vaccine Recommendation (SHARE)

S- SHARE

H- HIGHLIGHT

A- ADDRESS

R- REMIND

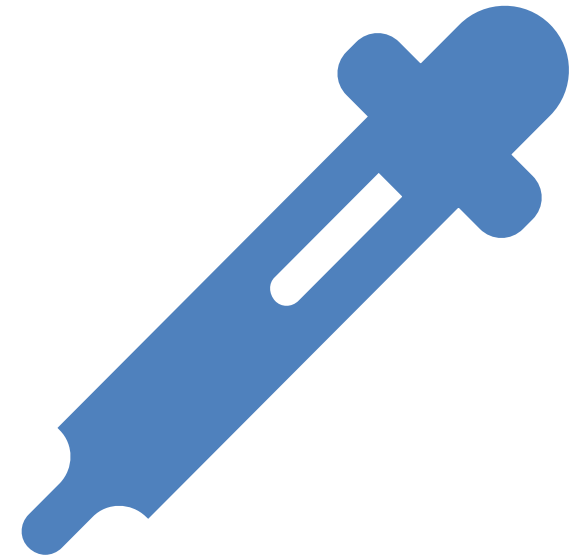
E- EXPLAIN



S- Share

S- SHARE the reasons why the influenza vaccine is right for the patient given his or her age, health status, lifestyle, occupation, or other risk factors.

“This vaccine can protect you and your family from getting sick from flu. By getting the shot today, you’ll be protecting yourself and the people around you who are more vulnerable to serious flu illness, like your children and parents.”





H- Highlight

H - HIGHLIGHT positive experiences with influenza vaccines (personal or in your practice), as appropriate, to reinforce the benefits and strengthen confidence in flu vaccination.

Tell your patients that CDC and ***you*** recommend they get the influenza vaccine each year.

A- Address

A - ADDRESS patient questions and any concerns about the influenza vaccine, including side effects, safety, and vaccine effectiveness in plain and understandable language.

“A flu shot cannot cause flu illness. Flu shots are made either with flu vaccine viruses that have been ‘inactivated’, making them not infectious or with no flu vaccine viruses at all. The most common side effects of an influenza vaccine are mild, like redness, swelling, or pain in your arm where the shot was given. This should go away within a few days.”





“Flu activity is going to start to pick up, and CDC says to expect more cases in the coming months. That is why I want to make sure I help protect you and your loved ones.”

E- Explain

E - EXPLAIN the potential costs of getting the flu, including serious health effects, time lost (such as missing work or family obligations), and financial costs.

“It’s important to get vaccinated this season because flu vaccination can reduce potential flu illnesses, doctor visits, and missed work and school due to flu.”





Diphtheria



Pertussis
Whooping Cough



Tetanus



Tdap Vaccines

- **Boostrix®** 10 years and older
- **ADACEL®** 10 through 64 years

Tdap may be used for decennial booster or for wound prophylaxis

Both safe for pregnant women

Tdap during Pregnancy

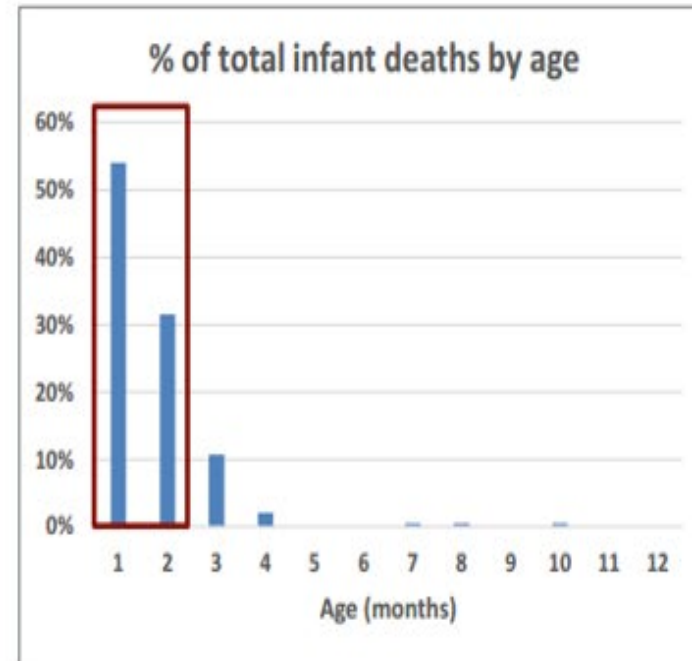
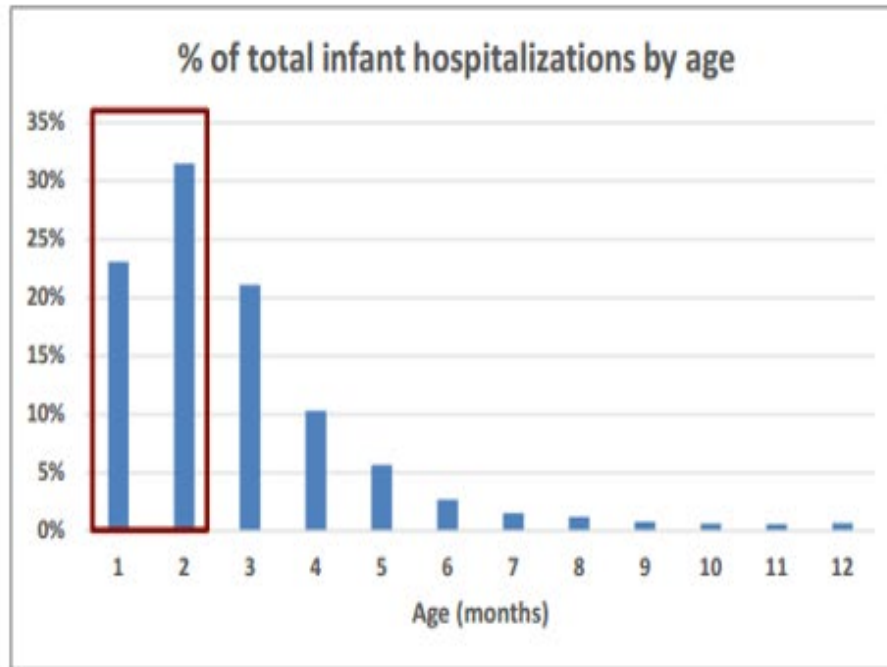
ACIP recommends:

- One dose of Tdap during each pregnancy, regardless of a prior history of receiving Tdap.

Optimal timing:

- Between 27- and 36-weeks gestation; earlier in this window maximizes passive antibody transfer to the infant
 - Has been shown to be 80%-91% effective
- If Tdap is not given during pregnancy, then administer immediately postpartum

Hospitalizations and deaths in infants <12 months of age, % of total pertussis cases, 2004-2015*



*2015 data are provisional

SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System

Respiratory Syncytial Virus (RSV) Vaccine in Pregnancy

Pregnant at 32-36 weeks gestation from September through January in most of the continental United States*: 1 dose RSV vaccine (Abrysvo™). Administer RSV vaccine regardless of previous RSV infection.

Either maternal RSV vaccination or infant immunization with nirsevimab (RSV monoclonal antibody) is recommended to prevent respiratory syncytial virus lower respiratory tract infection in infants.

***Note:** 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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

Making the Referral for Tdap

- Begin with a vaccine recommendation that includes information about the safety and importance of vaccination for mother and baby
 - Tailor your message with scientific data or personal anecdotes
- Plan to answer questions from other immunization providers who are concerned with vaccinating your pregnant patients. <https://www.cdc.gov/pertussis/downloads/fs-hcp-tdap-vaccine-referral.pdf>

Vaccines in Pregnancy

CDC ACOG and ACNM recommend that pregnant women are vaccinated against flu and pertussis in **each** pregnancy

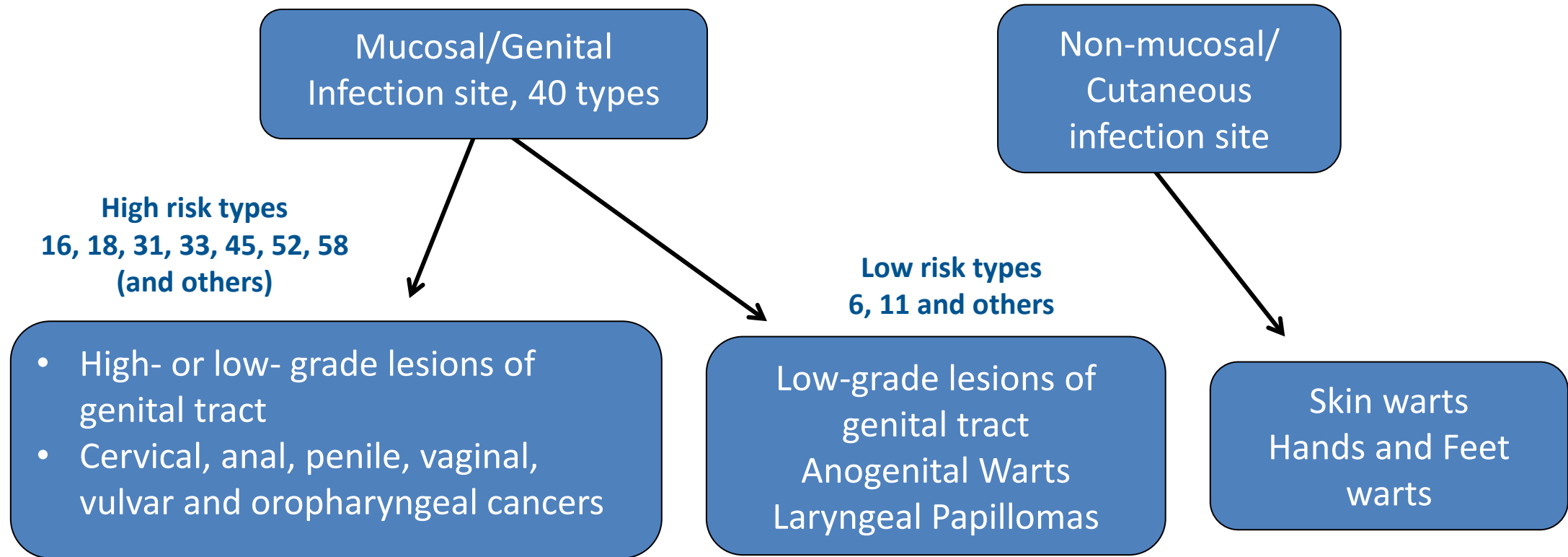
If you do not stock them

- Provide information on where patients can get the vaccine(s) you recommend.
- Always write a patient-specific prescription; helps your patients obtain the vaccine at another location where a prescription may be required
- Re-emphasize the fact that just because you do not stock a specific vaccine in your office does not mean it is not important, is less important than other vaccines you do stock, or that you have concerns about its safety.

For help locating vaccines in your area, the HealthMap Vaccine Finder is available at:
<https://www.vaccines.gov/find-vaccines/>

Types of Human Papillomavirus (HPV)

(More Than 200 Types Identified)



*Epidemiology and Prevention of Vaccine Preventable Diseases 14th Edition, 2021

*Red Book – AAP 2018 Report of the Committee on Infectious Diseases

* MMWR, August 29, 2014, RR Vol. 63, No. 5

HPV Vaccine

Gardasil 9[®] (9vHPV) HPV types 6, 11, 16, 18, 31, 33, 45, 52, 58

ACIP recommends HPV vaccine starting at age 11 or 12 years for:

- All males and females through 26 yrs.
- Catch-up vaccination for persons through age 26 who are not adequately vaccinated

Gardasil 9 is now also licensed for all persons 9 through 45 yrs. of age

- Use the 3-dose schedule for persons 15-45 years of age
- Based on shared clinical decision making, the series may be given to persons ages 27-45.

ACIP Recommendations and Schedule

2 Dose Schedule:

HPV vaccine initiated between 9-14 years can be given in two doses: 0, 6-12 months.
(If the 2nd dose is administered at least 5 months after 1st dose, it can be counted).

3 Dose Schedule:

HPV vaccine initiated after the 15th birthday or in persons with certain immunocompromising conditions should be vaccinated with the 3-dose schedule:
0, 1-2, 6 months

Dose 2 should be given at least 1-2 months after first dose (1 month min.); Dose 3 should be given at least 6 months after the first dose
(min. of 3 months between dose 2 and 3)

ACOG Recommendations (1)

- Sexually active women and women with previous abnormal cervical cytology or genital warts can receive the HPV vaccine
- These women should be counseled that the vaccine may be less effective in women who have been exposed to HPV before vaccination than in women who were HPV naive at the time of vaccination
- Women with previous HPV infection will benefit from protection against disease caused by the HPV vaccine types with which they have not been infected

ACOG Recommendations (2)

- Providers should strongly recommend HPV vaccination to eligible patients and stress the benefits and safety of the HPV vaccine.
- For some women aged 27–45 years who are previously unvaccinated, providers may use shared clinical decision making regarding the HPV vaccination, considering the patient's risk for acquisition of a new HPV infection and whether the HPV vaccine may provide benefit.
- ACOG does not recommend that individuals who received the quadrivalent HPV vaccine be revaccinated with 9-valent HPV vaccine, including those aged 27–45 years who previously completed some, but not all, of the vaccine series when they were younger.
- HPV vaccine is not recommended during pregnancy; however, routine pregnancy testing is not recommended before vaccination.
- The HPV vaccine can and should be given to breastfeeding women age 26 years and younger who have not previously been vaccinated.

Hepatitis B Virus

Acute hepatitis B can lead to chronic hepatitis B or rarely to liver failure

Chronic hepatitis B can lead to:

- Cirrhosis
- Hepatic decompensation
- Hepatocellular carcinoma
- Extra-hepatic manifestations and death

Transmission:

- Percutaneous or mucosal exposure to blood or body fluids of infected person including contaminated surfaces
- Perinatal infection from HBsAg + mother to fetus

Hepatitis B

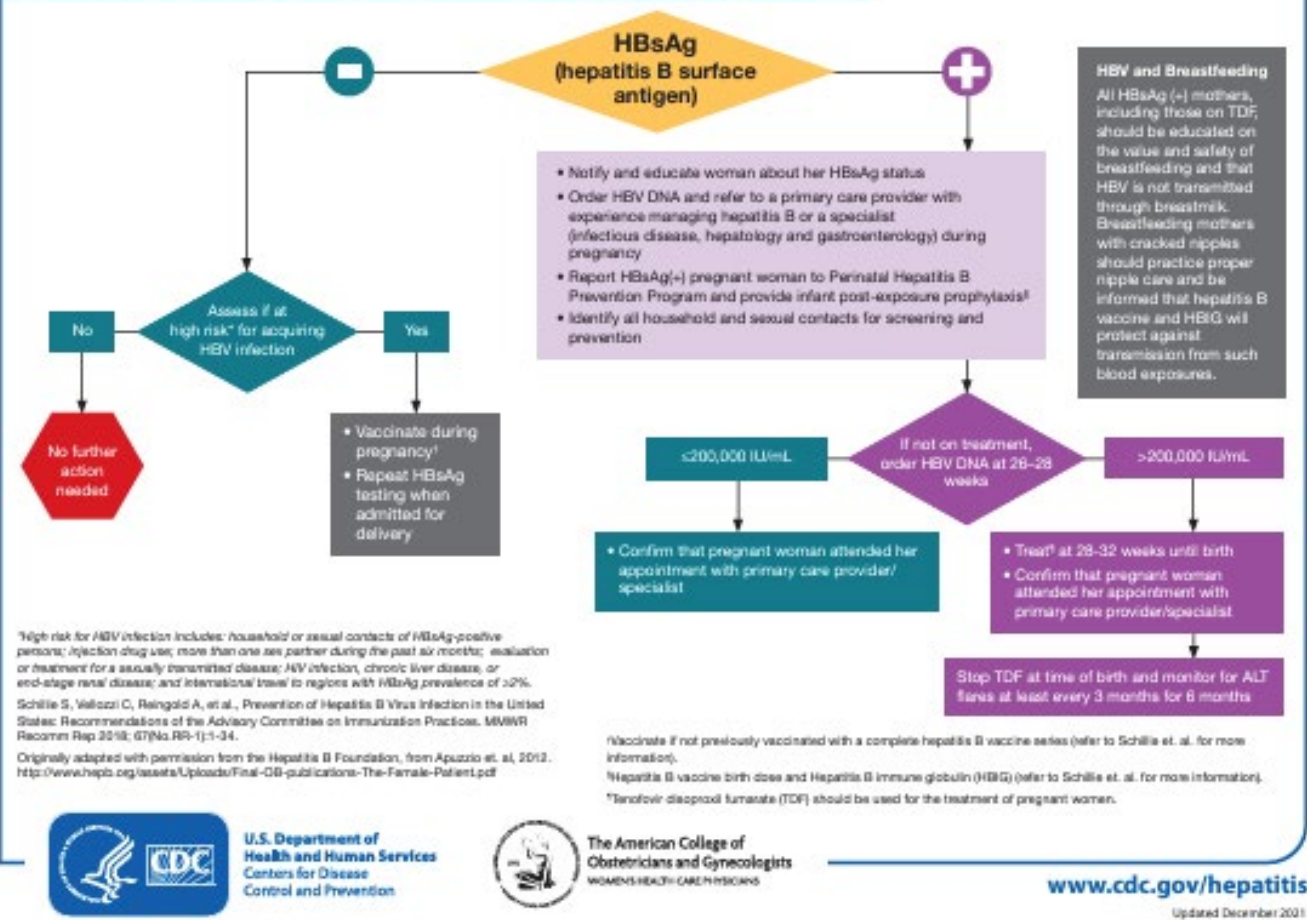
Infectious liver disease caused by the hepatitis B virus (HBV)

Transmission: percutaneous or mucosal exposure to infectious blood or body fluids (e.g., skin puncture, sexual contact, contaminated surfaces)

- Vertical transmission from a n HBsAg-positive pregnant person to the newborn at birth
- Without postexposure immunoprophylaxis, approximately 40% of infants born to HBV-infected mothers in the United States will develop chronic HBV infection, approximately one-fourth of whom will eventually die from chronic liver disease.
- Perinatal HBV transmission can be prevented by identifying HBV-infected (i.e., hepatitis B surface antigen [HBsAg]-positive) pregnant women and providing hepatitis B immune globulin and hepatitis B vaccine to their infants within 12 hours of birth.

Screening and Referral Algorithm for HPV infection among Pregnant Women

Screening and Referral Algorithm for Hepatitis B Virus (HBV) Infection Among Pregnant Women



Source: CDC:
<https://www.cdc.gov/hepatitis/hbv/perinatalxmntn.htm>

Procedures to Prevent Perinatal Hepatitis B Virus Transmission at Delivery

For procedures to prevent perinatal Hepatitis B Virus Transmission at Delivery

- When Maternal HBsAg Test Results are Available
- When Maternal HBsAg Test Results are Unavailable

See next two (2) slides for Algorithms from CDC

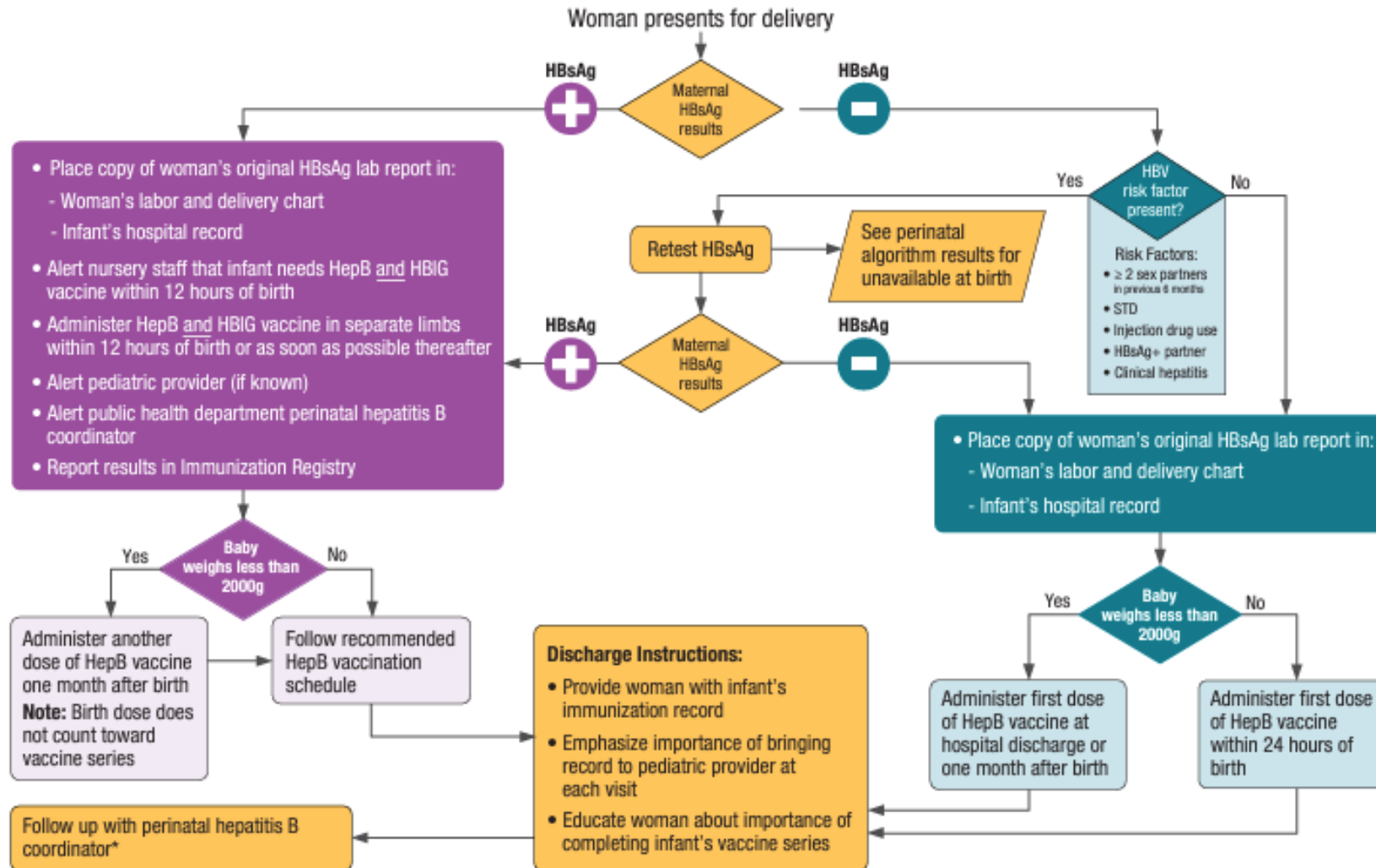
Sources: <https://www.cdc.gov/hepatitis/hbv/perinatalxmtn.htm>

Procedures to Prevent Perinatal Hepatitis B Virus Transmission at Delivery

Maternal Surface Antigen (HBsAg) Test Results **AVAILABLE**



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



*Perinatal Hepatitis B Prevention Program coordinator list: <https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html>

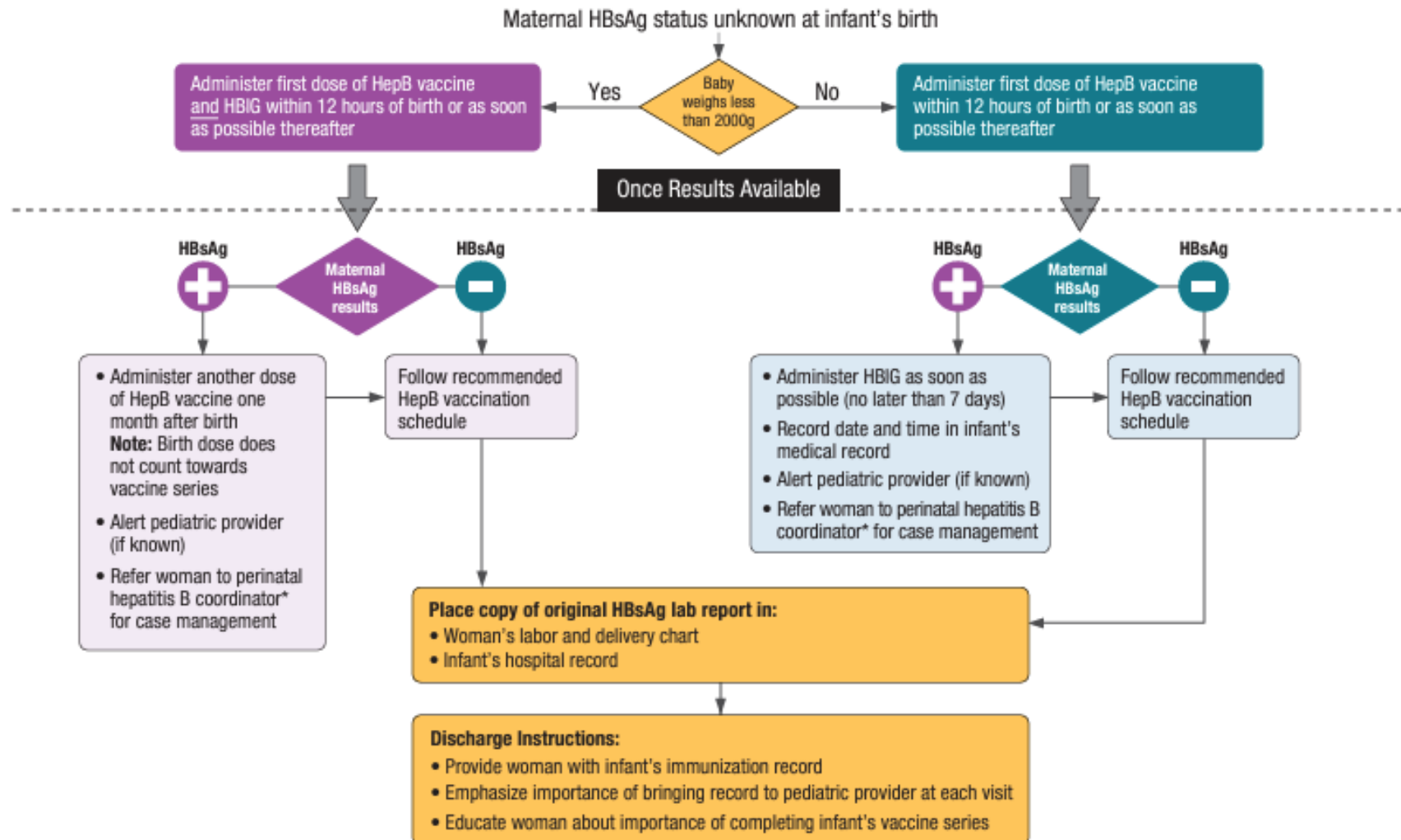
<https://www.cdc.gov/hepatitis/hbv/perinata/bmtn.htm>
Updated 2019

Procedures to Prevent Perinatal Hepatitis B Virus Transmission at Delivery

Maternal Surface Antigen (HBsAg) Test Results **UNAVAILABLE**
at admission or from retesting at delivery



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



*Perinatal Hepatitis B Prevention Program Coordinator contact list: <https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html>

<https://www.cdc.gov/hepatitis/hbv/perinatabumtn.htm>
Updated 2019

Management of Infants Born to Women with Hepatitis B Virus Infection for Pediatricians

Pediatric Provider Tip Sheet from CDC

Management of Perinatally Hepatitis B Virus (HBV)-Exposed Infants with Birth Weights $\geq 2,000$ grams (≥ 4.4 lbs)

Administer hepatitis B immune globulin (HBIG) and single-antigen vaccine in separate limbs at birth (≤ 12 hours).

Complete vaccine series with 2 additional doses of single-antigen vaccine (3 total doses) OR with 3 additional doses of combination vaccine (4 total doses).

	≤ 12 hours of birth	1 mo	2 mos	4 mos	6 mos
Single-Antigen Vaccine Series*	1 st dose	2 nd dose			3 rd dose
Single-Antigen and Combination Vaccine Series*	1 st dose (<i>single-antigen vaccine</i>)		2 nd dose	3 rd dose	4 th dose

*Administer the final dose no earlier than 6 months of age (minimum age 164 days includes 4-day grace period). Complete postvaccination serologic testing (PVST) at 9–12 months of age (or 1–2 months after final dose, if series delayed) by testing for ONLY hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface antigen (anti-HBs). Do NOT test for antibodies to hepatitis B core antigen (anti-HBc).

Management of Perinatally Hepatitis B Virus (HBV)-Exposed Infants with Birth Weights $< 2,000$ grams (< 4.4 lbs)

Administer HBIG and single antigen vaccine in separate limbs at birth (≤ 12 hours).

Complete vaccine series with 3 additional doses of single antigen or combination vaccine (4 total doses).

	≤ 12 hours of birth	1 mo	2 mos	3 mos	4 mos	6 mos
Single-Antigen Vaccine Series*	1 st dose	2 nd dose	3 rd dose			4 th dose
Single-Antigen and Combination Vaccine Series*	1 st dose (<i>single-antigen vaccine</i>)		2 nd dose		3 rd dose	4 th dose

*Administer the final dose no earlier than 6 months of age (minimum age 164 days includes 4-day grace period). Complete postvaccination serologic testing (PVST) at 9–12 months of age (or 1–2 months after final dose, if series delayed) by testing for ONLY hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface antigen (anti-HBs). Do NOT test for antibodies to hepatitis B core antigen (anti-HBc).

Interpreting Post Vaccination Serologic Test (PVST) Results

Immune	Still Susceptible	Infected
HBsAg-Negative Anti-HBs-Positive Antibody Level ≥ 10 mIU/mL No further follow up necessary Report results to your Perinatal Hepatitis B Prevention Program (PHBPP) coordinator. https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html	HBsAg-Negative Anti-HBs-Negative Antibody Level < 10 mIU/mL Needs additional follow up and vaccines Contact your PHBPP coordinator for assistance https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html	HBsAg-Positive Anti-HBs-Negative Antibody Level < 10 mIU/mL Needs additional follow up Contact your PHBPP coordinator for assistance https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html



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

CS 325363-A September 29, 2021



Post-vaccination serologic testing (PVST)

ACIP Recommendations re: PVST

- PVST recommended for infants born to HBsAg-positive and HBsAg-unknown mothers
- Testing is recommended after the infant has completed the HepB vaccine series.
- Testing is recommended at 9-12 months of age (not recommended before 9 mos. of age)
- PVST must include hepatitis B surface antigen (HBsAg) **AND** hepatitis B surface antibody (anti-HBs) tests

Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices.

MMWR Recommendations and Reports 2018;67(No. RR-1):1–31.
<https://www.cdc.gov/mmwr/volumes/67/rr/rr6701a1.htm>

ACIP Recommendations for Hepatitis B Vaccination, Children and Adolescents

- Administer hepatitis B vaccine to all newborns within **24 hours** of birth;
 - Dose 2 at 1-2 months of age and Dose 3 at 6-18 months of age
- Unvaccinated children aged <19 years



ACIP Recommendations for Hep B Vaccine, Adults

ACIP recommends that hepatitis B vaccine should be given to:

- all adults 19—59 yrs.
- All people aged 60 years and older with any risk factor for hepatitis B infection

ACIP recommends that any person aged 60 and older with NO known risk factor may be vaccinated.

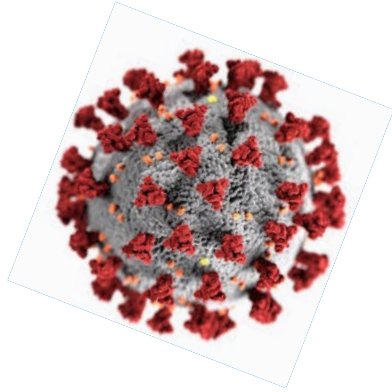
Risk factors for Hepatitis B

- Persons at risk for infection by sexual exposure
 - Sex partners of persons who test positive for hepatitis B surface antigen (HBsAg)
 - Sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than one sex partner during the previous 6 months)
 - Persons seeking evaluation or treatment for a sexually transmitted infection
 - Men who have sex with men
- Persons at risk for infection by percutaneous or mucosal exposure to blood
 - Persons with current or recent injection use
 - Household contacts of persons who test positive for HBsAg
 - Residents and staff of facilities for persons with developmental disabilities
 - 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, and persons who are predialysis
 - Persons with diabetes at the discretion of the treating clinician

Risk factors for Hepatitis B

■ Others

- International travelers to countries with high or intermediate levels of endemic hepatitis B virus (HBV) infection (HBsAg prevalence of $\geq 2\%$)
- Persons with hepatitis C virus infection
- Persons with chronic liver disease (including, but not limited to, persons with cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, or an alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)
- Persons with HIV infection
- Incarcerated persons



SARS-CoV-2 virus (COVID- 19 disease)*

SARS-CoV-2, the virus that causes COVID-19 disease affects the respiratory system primarily, but other organ systems may also be impacted

Transmission is through droplet and respiratory spread but may also include indirect contact with contaminated objects

Access current data on COVID-19 cases and deaths in Georgia** and nationally***

COVID-19 disease

Symptoms can be mild to severe and can develop 2-14 days after exposure

Fever or chills

Cough

Shortness of
breath

Fatigue

Myalgia

Headache

Loss of taste or
smell

Sore throat

GI symptoms
(nausea, vomiting,
diarrhea)

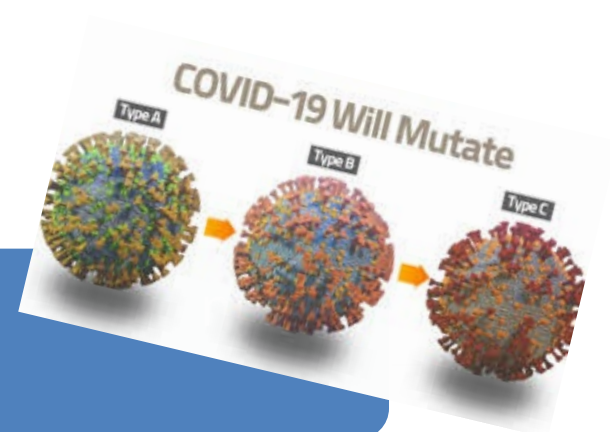
COVID-19 Variants

Viruses constantly change through mutation, and variants are expected to occur over time.

Multiple COVID-19 variants are circulating globally.

CDC is studying these variants quickly to understand whether the variants

- Spread more easily from person to person
- Cause milder or more severe disease in people
- Are detected by currently available viral tests
- Respond to medicines currently being used to treat people for COVID-19
- Change the effectiveness of COVID-19 vaccines.



Ages 6 months–4 years

COVID-19 vaccination history	Bivalent vaccine	Number of bivalent doses indicated	Dosage (mL/ug)	Vaccine vial cap and label colors	Interval between doses*
Unvaccinated	Moderna	2	0.25 mL/25 ug	Dark blue cap; gray label border	Dose 1 and Dose 2: 4–8 weeks
	____or____ Pfizer BioNTech†	3	0.2 mL/3 ug	Maroon	Dose 1 and Dose 2: 3–8 weeks Dose 2 and dose 3: At least 8 weeks
1 dose monovalent Moderna	Moderna	1	0.25 mL/25 ug	Dark blue cap; gray label border	4–8 weeks after monovalent dose
2 doses monovalent Moderna	Moderna	1	0.2 mL/10 ug	Dark pink cap; yellow label border	At least 8 weeks after last monovalent dose

Age 5 years

COVID-19 vaccination history	Bivalent vaccine	Number of bivalent doses indicated	Dosage (mL/ug)	Vaccine vial cap and label colors	Interval between doses*
Unvaccinated	Moderna	2	0.25 mL/25 ug	Dark blue cap; gray label border	Dose 1 and Dose 2: 4–8 weeks
	____or____ Pfizer BioNTech	1	0.2 mL/10 ug	Orange	
1 dose monovalent Moderna	Moderna	1	0.25 mL/25 ug	Dark blue cap; gray label border	4–8 weeks after monovalent dose
	____or____ Pfizer BioNTech	1	0.2 mL/10 ug	Orange	At least 8 weeks after monovalent dose
2 doses monovalent Moderna	Moderna	1	0.2 mL/10 ug	Dark pink cap; yellow label border	At least 8 weeks after last monovalent dose
	____or____ Pfizer BioNTech	1	0.2 mL/10 ug	Orange	At least 8 weeks after last monovalent dose
2 doses monovalent Moderna and 1 dose bivalent mRNA	NA; previously received 1 bivalent vaccine dose	NA	NA	NA	NA
1 or more doses monovalent Pfizer-BioNTech	Pfizer-BioNTech	1	0.2 mL/10 ug	Orange	At least 8 weeks after last monovalent dose
2 doses monovalent Pfizer-BioNTech and 1 dose bivalent Pfizer-BioNTech	NA; previously received 1 bivalent vaccine dose	NA	NA	NA	NA
Ever received 1 dose bivalent Pfizer-BioNTech (regardless of monovalent vaccine history)	NA; previously received 1 bivalent vaccine dose	NA	NA	NA	NA

Ages 12 years and older

COVID-19 vaccination history	Bivalent vaccine	Number of bivalent doses indicated	Dosage (mL/ug)	Vaccine vial cap and label colors	Interval between doses*
Unvaccinated	Moderna	1	0.5 mL/50 ug	Dark blue cap; gray label border	—
	____or____ Pfizer BioNTech	1	0.3 mL/30 ug	Gray	—
1 or more doses monovalent mRNA (no doses bivalent mRNA)	Moderna	1	0.5 mL/50 ug	Dark blue cap; gray label border	At least 8 weeks after last monovalent dose

Ages 6–11 years

COVID-19 vaccination history	Bivalent vaccine	Number of bivalent doses indicated	Dosage (mL/ug)	Vaccine vial cap and label colors
Unvaccinated	Moderna	1	0.25 mL/25 ug	Dark blue cap; gray label border
	____or____ Pfizer BioNTech	1	0.2 mL/10 ug	Orange
1 or more doses monovalent mRNA (no doses bivalent mRNA)	Moderna	1	0.25 mL/25 ug	Dark blue cap; gray label border
	____or____ Pfizer BioNTech	1	0.2 mL/10 ug	Orange
2 or more doses monovalent mRNA and 1 dose bivalent mRNA	NA; previously received 1 bivalent vaccine dose	NA	NA	NA
Ever received 1 dose bivalent mRNA (regardless of monovalent vaccine history)	NA; previously received 1 bivalent vaccine dose	NA	NA	NA

COVID-19 vaccination schedules for most people. Obtain most current schedule at: <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#timing-spacing-interchangeability>

COVID-19 in Pregnant Women or Lactating Women

- Pregnant and recently pregnant women with COVID-19 are at [increased risk](#) for severe illness when compared with non-pregnant women
 - Severe illness includes hospitalization, intensive care unit admission, mechanical ventilation or extracorporeal membrane oxygenation, or illness that results in death.
- Pregnant women with COVID-19 are at increased risk for preterm birth and might be at increased risk for other adverse pregnancy complications and outcomes, such as preeclampsia, coagulopathy, and stillbirth.

COVID-19 Vaccination of Pregnant Women or Lactating Women

- COVID-19 vaccination is recommended for all adults, including women who are pregnant, lactating, trying to get pregnant, or might become pregnant in the future
- There is no evidence that any of the COVID-19 vaccines affect current or future fertility

Summary: Promoting Immunizations During Pregnancy Integrating Immunizations into routine Ob-Gyn care

Promoting Immunizations

- Emphasize important messages:
 - Immunization improves the chances of having a healthy delivery
 - The protective antibodies that babies receive from their mothers can be life-saving
- Could create a positive foundation for the vaccine series recommended for the infant
- Will help the transition from obstetrical to pediatric care and the acceptance of essential vaccines

Strategies to improve immunization processes and increase rates:

- Administer routinely discussed and recommended vaccines
- Create a culture of immunization in your setting
- Develop a standard process
- Utilizing Resources and Tools from CDC and ACOG

Critical Elements for Immunization Services

Updated Vaccine Storage and Handling Recommendations

- Use stand-alone refrigerator and stand-alone freezer units. If combined, use only refrigerator part.
- Do not store any vaccine in a dormitory-style or bar-style combined refrigerator/freezer unit.
- Use a bio-safe glycol-encased probe or a similar temperature buffered probe
- Probes should be calibrated every 1-2 yrs. or according to manufacturers' guidelines
- Use digital data loggers.
- Do not store ANYTHING ELSE in refrigerator.
- Review vaccine expiration dates and rotate vaccine stock weekly.



Maintaining Appropriate Vaccine Storage & Handling

- Assign a primary and alternate vaccine coordinator.
- Store all vaccines as recommended by manufacturer and IN ORIGINAL PACKAGING, WITH THE LID CLOSED.
- Monitor and record temperatures of refrigerator and freezer twice daily.
- Correct ranges: refrigerator 36° F to 46° F; freezer -58° F to +5° F
- Maintain temperature log records for 3 years.
- Take immediate action for all out-of-range temps.
- Implement a vaccine emergency system.
- If it is necessary to transport vaccine, do NOT use dry ice. See Vaccine Storage and Handling Toolkit, Section 6 for Transport System Recommendations.
- **For COVID-19 vaccine, see specific vaccine guidelines.**

Improper Immunization Administration Practices with Any Vaccine

DO NOT re-use needles or syringes, due to the possibility of:

- Transmission of blood-borne viruses (HCV, HBV, HIV)
- Referral of providers to licensing boards for disciplinary action
- Malpractice suits filed by patients

Never use partial doses from 2 or more vials to obtain a dose of vaccine.**

Per OSHA and the CDC, you MAY use the same needle to withdraw a diluent, inject this into a lyophilized vaccine vial, and then administer to a patient, providing the needle or syringe has not otherwise been contaminated.

Vaccine Administration Best practices – Route, Dose, Site, Needle Size

Administering Vaccines: Dose, Route, Site, and Needle Size

Vaccine	Dose	Route	Injection Site and Needle Size
COVID-19 Pfizer-BioNTech • age 5 to <12 yrs: 0.2 mL pediatric formulation ("orange cap") • age ≥12 yrs: 0.3 mL adult/adolescent formulation for primary and booster doses Moderna; ≥18 yrs: 0.5 mL primary series*; 0.25 mL booster Janssen: ≥18 yrs: 0.5 mL for primary & booster doses		IM	Subcutaneous (Subcut) injection Use a 23–25 gauge needle. Choose the injection site that is appropriate to the person's age and body mass.
Diphtheria, Tetanus, Pertussis (DTaP, DT, Tdap, Td)	0.5 mL	IM	
Haemophilus influenzae type b (Hib)	0.5 mL	IM	
Hepatitis A (HepA)	≤18 yrs: 0.5 mL ≥19 yrs: 1.0 mL	IM	
Hepatitis B (HepB) <i>Persons 11–15 yrs may be given Recombivax HB (Merck)</i> <i>1.0 mL adult formulation on a 2-dose schedule.</i>	Engerix-B; Recombivax HB ≤19 yrs: 0.5 mL ≥20 yrs: 1.0 mL Heplisav-B ≥18 yrs: 0.5 mL	IM	
Human papillomavirus (HPV)	0.5 mL	IM	
Influenza, live attenuated (LAIV)	0.2 mL (0.1 mL in each nostril)	Intra-nasal spray	
Influenza, inactivated (IIV); for ages 6–35 months	Afluria: 0.25 mL Fluzone: 0.25 or 0.5 mL Fluarix, Flucelvax, FluLaval: 0.5 mL	IM	
Influenza, inactivated (IIV), ≥3 yrs; recombinant (RIV), ≥18 yrs; high-dose (HD-IIV) ≥65 yrs	0.5 mL FluZone HD: 0.7 mL	IM	

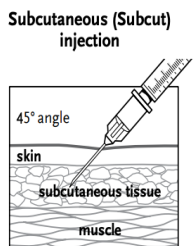
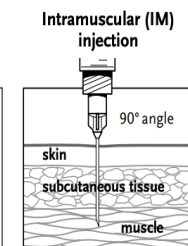
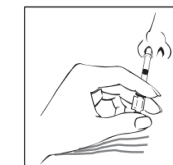
AGE	NEEDLE LENGTH	INJECTION SITE
Infants (1–12 mos)	5/8"	Fatty tissue over anterolateral thigh muscle
Children 12 mos or older, adolescents, and adults	5/8"	Fatty tissue over anterolateral thigh muscle or fatty tissue over triceps
Intramuscular (IM) injection Use a 22–25 gauge needle. Choose the injection site and needle length that is appropriate to the person's age and body mass.		
AGE	NEEDLE LENGTH	INJECTION SITE
Newborns (1st 28 days)	5/8" ¹	Anterolateral thigh muscle
Infants (1–12 mos)	1"	Anterolateral thigh muscle
Toddlers (1–2 years)	1–1¼"	Anterolateral thigh muscle ²
	5/8–1" ¹	Deltoid muscle of arm
Children (3–10 years)	5/8–1" ¹	Deltoid muscle of arm ²
	1–1¼"	Anterolateral thigh muscle
Adolescents and teens (11–18 years)	5/8–1" ¹	Deltoid muscle of arm ²
	1–1½"	Anterolateral thigh muscle
Adults 19 years or older		

Measles, Mumps, Rubella (MMR)	0.5 mL	Subcut
Meningococcal serogroups A, C, W, Y (MenACWY)	0.5 mL	IM
Meningococcal serogroup B (MenB)	0.5 mL	IM
Pneumococcal conjugate (PCV)	0.5 mL	IM
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM or Subcut
Polio, inactivated (IPV)	0.5 mL	IM or Subcut
Rotavirus (RV)	Rotarix: 1.0 mL Rotateq: 2.0 mL	Oral
Varicella (VAR)	0.5 mL	Subcut
Zoster (Zos)	Shingrix: 0.5 [†] mL	IM
Combination Vaccines		
DTaP-HepB-IPV (Pediarix) DTaP-IPV/Hib (Pentacel) DTaP-IPV (Kinrix; Quadracel) DTaP-IPV-Hib-HepB (Vaxelis)	0.5 mL	IM
MMRV (ProQuad)	≤12 yrs: 0.5 mL	Subcut
HepA-HepB (Twinrix)	≥18 yrs: 1.0 mL	IM

* If immunocompromised, Moderna 0.5 mL for 3-dose primary series, then 0.25 mL for booster dose.

[†] The Shingrix vial might contain more than 0.5 mL. Do not administer more than 0.5 mL.

Intranasal (NAS) administration of Flumist (LAIV) vaccine



Female or male <130 lbs	5/8–1" ¹	Deltoid muscle of arm
Female or male 130–152 lbs	1"	Deltoid muscle of arm
Female 153–200 lbs Male 153–260 lbs	1–1½"	Deltoid muscle of arm
Female 200+ lbs Male 260+ lbs	1½"	Deltoid muscle of arm
Female or male, any weight	1½"	Anterolateral thigh muscle

¹ A 5/8" needle may be used in newborns, preterm infants, and patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

² Preferred site

NOTE: Always refer to the package insert included with each biologic for complete vaccine administration information. CDC's Advisory Committee on Immunization Practices (ACIP) recommendations for the particular vaccine should be reviewed as well. Access the ACIP recommendations at www.immunize.org/acip.

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota · 651-647-9009 · www.immunize.org · www.vaccineinformation.org
www.immunize.org/catg.d/p3085.pdf · Item #P3085 (11/21)

How to administer IM and SC vaccine injections

How to Administer Intramuscular and Subcutaneous Vaccine Injections Administration by the Intramuscular (IM) Route

Administer these vaccines via IM route

- Diphtheria-tetanus-pertussis (DTaP, Tdap)
- Diphtheria-tetanus (DT, Td)
- *Haemophilus influenzae* type b (Hib)
- Hepatitis A (HepA)
- Hepatitis B (HepB)
- Human papillomavirus (HPV)
- Inactivated influenza (IIV)
- Meningococcal serogroups A, C, W, Y (MenACWY)
- Meningococcal serogroup B (MenB)
- Pneumococcal conjugate (PCV13)
- Zoster, recombinant (RZV)

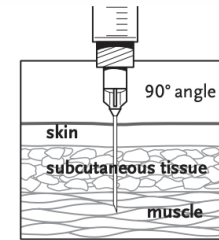
Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPSV23) vaccines either IM or subcutaneously (Subcut).

PATIENT AGE	INJECTION SITE	NEEDLE SIZE
Newborn (0–28 days)	Anterolateral thigh muscle	5/8"* (22–25 gauge)
Infant (1–12 mos)	Anterolateral thigh muscle	1" (22–25 gauge)
Toddler (1–2 years)	Anterolateral thigh muscle	1–1¼" (22–25 gauge)
	Alternate site: Deltoid muscle of arm if muscle mass is adequate	5/8*–1" (22–25 gauge)
Children (3–10 years)	Deltoid muscle (upper arm)	5/8*–1" (22–25 gauge)
	Alternate site: Anterolateral thigh muscle	1–1¼" (22–25 gauge)
Children and adults (11 years and older)	Deltoid muscle (upper arm)	5/8†–1" (22–25 gauge)
	Alternate site: Anterolateral thigh muscle	1–1½" (22–25 gauge)

* A 5/8" needle usually is adequate for neonates (first 28 days of life), preterm infants, and children ages 1 through 18 years if the skin is stretched flat between the thumb and forefinger and the needle is inserted at a 90° angle to the skin.

† A 5/8" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched flat between the

thumb and forefinger and the needle is inserted at a 90° angle to the skin; a 1" needle is sufficient in patients weighing 130–152 lbs (60–70 kg); a 1–1½" needle is recommended in women weighing 153–200 lbs (70–90 kg) and men weighing 153–260 lbs (70–118 kg); a 1½" needle is recommended in women weighing more than 200 lbs (91 kg) or men weighing more than 260 lbs (118 kg).



Needle insertion

Use a needle long enough to reach deep into the muscle.

Insert needle at a 90° angle to the skin with a quick thrust.

(Before administering an injection of vaccine, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion.†)

Multiple injections given in the same extremity should be separated by a minimum of 1", if possible.

† CDC. "General Best Practices Guidelines for Immunization: Best Practices Guidance of the ACIP" at <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/downloads/general-recs.pdf>

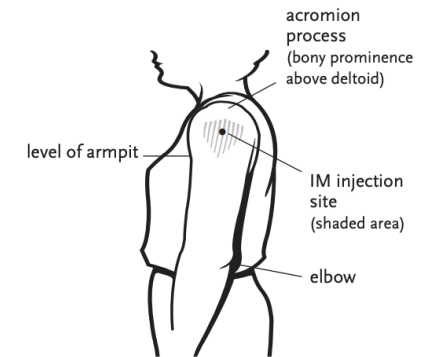


Intramuscular (IM) injection site for infants and toddlers



Insert needle at a 90° angle into the anterolateral thigh muscle.

Intramuscular (IM) injection site for children and adults



Give in the central and thickest portion of the deltoid muscle – above the level of the armpit and approximately 2–3 fingerbreadths (~2") below the acromion process. See the diagram. To avoid causing an injury, do not inject too high (near the acromion process) or too low.

CONTINUED ON THE NEXT PAGE ►

Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

www.immunize.org/catg.d/p2020.pdf • Item #P2020 (1/18)

Training Tools: Skills Checklist for Vaccine Administration

Skills Checklist for Vaccine Administration

During the COVID-19 pandemic, the CDC recommends additional infection control measures for vaccination (see www.cdc.gov/vaccines/pandemic-guidance/index.html).

The Skills Checklist is a self-assessment tool for healthcare staff who administer immunizations. To complete it, review the competency areas below and the clinical skills, techniques and procedures outlined for each area. Score yourself in the Self-Assessment column. If you check **Needs to Improve**, you indicate further study, practice, or change is needed. When you check **Meets or Exceeds**, you indicate you believe you are performing at the expected level of competence, or higher.

Supervisors: Use the Skills Checklist to clarify responsibilities and expectations for staff who administer vaccines. When you use it to assist with performance reviews, give staff the opportunity to score themselves in advance. Next, observe their performance as they

administer vaccines to several patients, and score in the Supervisor Review columns. If improvement is needed, meet with them to develop a Plan of Action (see bottom of page 3) to help them achieve the level of competence you expect; circle desired actions or write in others.

The video "Immunization Techniques: Best Practices with Infants, Children, and Adults" helps ensure that staff administer vaccines correctly. (View at www.youtube.com/watch?v=WS26EijlfiI or order online at www.immunize.org/dvd/.) Another helpful resource is CDC's Vaccine Administration eLearn course, available at www.cdc.gov/vaccines/hcp/admin/resource-library.html.

COMPETENCY	CLINICAL SKILLS, TECHNIQUES, AND PROCEDURES	Self-Assessment		Supervisor Review		
		NEEDS TO IMPROVE	MEETS OR EXCEEDS	NEEDS TO IMPROVE	MEETS OR EXCEEDS	PLAN OF ACTION
A Patient/Parent Education	1. Welcomes patient/family and establishes rapport.					
	2. Explains what vaccines will be given and which type(s) of injection(s) will be done.					
	3. Answers questions and accommodates language or literacy barriers and special needs of patient/parents to help make them feel comfortable and informed about the procedure.					
	4. Verifies patient/parents received Vaccine Information Statements (VISs) for indicated vaccines and has had time to read them and ask questions.					
	5. Screens for contraindications (if within employee's scope of work).					
	6. Reviews comfort measures and aftercare instructions with patient/parents, and invites questions.					
B Medical and Office Protocols	1. Identifies the location of the medical protocols (e.g., immunization protocol, emergency protocol, reporting adverse events to the Vaccine Adverse Event Reporting system [VAERS], reference material).					
	2. Identifies the location of epinephrine, its administration technique, and clinical situations where its use would be indicated.					
	3. Maintains up-to-date CPR certification.					
	4. Understands the need to report any needlestick injury and to maintain a sharps injury log.					
	5. Demonstrates knowledge of proper vaccine handling (e.g., maintains and monitors vaccine at recommended temperature and protects from light).					

CONTINUED ON THE NEXT PAGE ►
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Skills Checklist for Vaccine Administration (continued)

COMPETENCY	CLINICAL SKILLS, TECHNIQUES, AND PROCEDURES	Self-Assessment	
		NEEDS TO IMPROVE	MEETS OR EXCEEDS
C Vaccine Preparation	1. Performs proper hand hygiene prior to preparing vaccine.		
	2. When removing vaccine from the refrigerator or freezer, looks at the storage unit's temperature to make sure it is in proper range.		
	3. Checks vial expiration date. Double-checks vial label and contents prior to drawing up.		
	4. Prepares and draws up vaccines in a designated clean medication area that is not adjacent to areas where potentially contaminated items are placed.		
	5. Selects the correct needle size for IM and Subcut based on patient age and/or weight, site, and recommended injection technique.		
	6. Maintains aseptic technique throughout, including cleaning the rubber septum (stopper) of the vial with alcohol prior to piercing it.		
	7. Prepares vaccine according to manufacturer instructions. Inverts vial and draws up correct dose of vaccine. Rechecks vial label.		
	8. Prepares a new sterile syringe and sterile needle for each injection. Checks the expiration date on the equipment (syringes and needles) if present.		
	9. Labels each filled syringe or uses labeled tray to keep them identified.		
D Administering Immunizations	1. Verifies identity of patient. Rechecks the provider's order or instructions against the vial and the prepared syringe.		
	2. Utilizes proper hand hygiene with every patient and, if it is office policy, puts on disposable gloves. (If using gloves, changes gloves for every patient.)		
	3. Demonstrates knowledge of the appropriate route for each vaccine.		
	4. Positions patient and/or restrains the child with parent's help.		
	5. Correctly identifies the injection site (e.g., deltoid, vastus lateralis, fatty tissue over triceps).		
	6. Locates anatomic landmarks specific for IM or Subcut injections.		
	7. Preps the site with an alcohol wipe, using a circular motion from the center to a 2" to 3" circle. Allows alcohol to dry.		

CONTINUED ON THE NEXT PAGE ►

Skills Checklist for Vaccine Administration (continued)

page 3 of 3

COMPETENCY	CLINICAL SKILLS, TECHNIQUES, AND PROCEDURES	Self-Assessment		Supervisor Review		
		NEEDS TO IMPROVE	MEETS OR EXCEEDS	NEEDS TO IMPROVE	MEETS OR EXCEEDS	PLAN OF ACTION
D Administering Immunizations (continued)	8. Controls the limb with the non-dominant hand; holds the needle an inch from the skin and inserts it quickly at the appropriate angle (90° for IM or 45° for Subcut).					
	9. Injects vaccine using steady pressure; withdraws needle at angle of insertion.					
	10. Applies gentle pressure to injection site for several seconds (using, e.g., gauze pad, bandaid).					
	11. Uses strategies to reduce anxiety and pain associated with injections.					
	12. Properly disposes of needle and syringe in "sharps" container.					
E Records Procedures	13. Properly disposes of vaccine vials.					
	1. Fully documents each vaccination in patient chart: date, lot number, manufacturer, site, VIS date, name/initials.					
	2. If applicable, demonstrates ability to use state/local immunization registry or computer to call up patient record, assess what is due today, and update computerized immunization history.					
	3. Asks for and updates patient's vaccination record and reminds them to bring it to each visit.					

Plan of Action

Circle desired next steps and write in the agreed deadline for completion, as well as date for the follow-up performance review.

- a. Watch video on immunization techniques and review CDC's Vaccine Administration eLearn, available at www.cdc.gov/vaccines/hcp/admin/resource-library.html.
- b. Review office protocols.
- c. Review manuals, textbooks, wall charts, or other guides (e.g., Key Vaccination Resources for Healthcare Professionals at www.immunize.org/catg.d/p2005.pdf).
- d. Review package inserts.
- e. Review vaccine storage and handling guidelines or video.
- f. Observe other staff with patients.

- g. Practice injections.
- h. Read Vaccine Information Statements.
- i. Be mentored by someone who has demonstrated appropriate immunization skills.
- j. Role play (with other staff) interactions with parents and patients, including age appropriate comfort measures.
- k. Attend a skills training or other appropriate courses/training.
- l. Attend healthcare customer satisfaction or cultural competency training.
- m. Renew CPR certification.
- Other _____

File the Skills Checklist in the employee's personnel folder.

PLAN OF ACTION DEADLINE _____

DATE OF NEXT PERFORMANCE REVIEW _____

EMPLOYEE SIGNATURE _____ DATE _____

SUPERVISOR SIGNATURE _____ DATE _____

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org | www.immunize.org/catg.d/p7010.pdf • Item #P7010 (2/21)

Always Document...

- Accept only written documentation of prior immunizations
- Provide VIS prior to administration of vaccine
- After vaccine administration, document:
 - ✓ Publication date of VIS & date VIS given
 - ✓ Date, site, route, antigen(s), manufacturer, lot #
 - ✓ Person administering vaccine, practice name and address
 - ✓ Vaccine refusals with a signed “Refusal to Vaccinate Form”—see Online Resources slide for link to this form
 - ✓ GA law does not require signed consent for immunizations

Refusal to Vaccinate																															
Child's Name _____	Child's ID# _____																														
Parent's/Guardian's Name _____																															
My child's doctor/nurse, _____ has advised me that my child (named above) should receive the following vaccine(s):																															
<table border="1"><thead><tr><th>Recommended</th><th>Declined</th></tr></thead><tbody><tr><td>☐ Hepatitis B vaccine</td><td>☐</td></tr><tr><td>☐ Diphtheria, tetanus, acellular pertussis (DTaP or Tdap) vaccine</td><td>☐</td></tr><tr><td>☐ Diphtheria tetanus (DT or Td) vaccine</td><td>☐</td></tr><tr><td>☐ Haemophilus influenzae type b (Hib) vaccine</td><td>☐</td></tr><tr><td>☐ Pneumococcal conjugate or polysaccharide vaccine</td><td>☐</td></tr><tr><td>☐ Inactivated poliovirus (IPV) vaccine</td><td>☐</td></tr><tr><td>☐ Measles-mumps-rubella (MMR) vaccine</td><td>☐</td></tr><tr><td>☐ Varicella (chickenpox) vaccine</td><td>☐</td></tr><tr><td>☐ Influenza (flu) vaccine</td><td>☐</td></tr><tr><td>☐ Meningococcal conjugate or polysaccharide vaccine</td><td>☐</td></tr><tr><td>☐ Hepatitis A vaccine</td><td>☐</td></tr><tr><td>☐ Rotavirus vaccine</td><td>☐</td></tr><tr><td>☐ Human papillomavirus (HPV) vaccine</td><td>☐</td></tr><tr><td>☐ Other _____</td><td>☐</td></tr></tbody></table>	Recommended	Declined	☐ Hepatitis B vaccine	☐	☐ Diphtheria, tetanus, acellular pertussis (DTaP or Tdap) vaccine	☐	☐ Diphtheria tetanus (DT or Td) vaccine	☐	☐ Haemophilus influenzae type b (Hib) vaccine	☐	☐ Pneumococcal conjugate or polysaccharide vaccine	☐	☐ Inactivated poliovirus (IPV) vaccine	☐	☐ Measles-mumps-rubella (MMR) vaccine	☐	☐ Varicella (chickenpox) vaccine	☐	☐ Influenza (flu) vaccine	☐	☐ Meningococcal conjugate or polysaccharide vaccine	☐	☐ Hepatitis A vaccine	☐	☐ Rotavirus vaccine	☐	☐ Human papillomavirus (HPV) vaccine	☐	☐ Other _____	☐	• That some vaccine-preventable diseases are common in other countries and that my unvaccinated child could easily get one of these diseases while traveling or from a traveler. • If my child does not receive the vaccine(s) according to the medically accepted schedule, the consequences may include: - Contracting the illness the vaccine is designed to prevent (the outcomes of these illnesses may include one or more of the following: certain types of cancer, pneumonia, illness requiring hospitalization, death, brain damage, paralysis, meningitis, seizures, and deafness; other severe and permanent effects from these vaccine-preventable diseases are possible as well). - Transmitting the disease to others (including those too young to be vaccinated or those with immune problems), possibly requiring my child to stay out of child care or school and requiring someone to miss work to stay home with my child during disease outbreaks. • My child's doctor and the American Academy of Pediatrics, the American Academy of Family Physicians, and the Centers for Disease Control and Prevention all strongly recommend that the vaccine(s) be given according to recommendations. Nevertheless, I have decided at this time to decline or defer the vaccine(s) recommended for my child, as indicated above, by checking the appropriate box under the column titled "Declined." I know that if my child is not vaccinated, he or she will be at greater risk of getting these diseases.
Recommended	Declined																														
☐ Hepatitis B vaccine	☐																														
☐ Diphtheria, tetanus, acellular pertussis (DTaP or Tdap) vaccine	☐																														
☐ Diphtheria tetanus (DT or Td) vaccine	☐																														
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☐ Pneumococcal conjugate or polysaccharide vaccine	☐																														
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☐ Measles-mumps-rubella (MMR) vaccine	☐																														
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☐ Influenza (flu) vaccine	☐																														
☐ Meningococcal conjugate or polysaccharide vaccine	☐																														
☐ Hepatitis A vaccine	☐																														
☐ Rotavirus vaccine	☐																														
☐ Human papillomavirus (HPV) vaccine	☐																														
☐ Other _____	☐																														

MENINGOCOCCAL VACCINE

WHAT YOU NEED TO KNOW

- 1 What is meningococcal disease?**

Meningococcal disease is a serious illness, caused by a bacteria. It is the leading cause of bacterial meningitis in children 2-18 years old in the United States. Meningitis is an infection of the brain and spinal cord coverings. Meningococcal disease can also cause blood infections.

About 2,600 people get meningococcal disease each year in the U.S. - 10-15% of those people die, in spite of treatment with antibiotics. Of those who live, another 10% lose limbs or lose hearing, become deaf, have problems with their nervous systems, become sexually infected, or suffer seizures or strokes.

Anyone can get meningococcal disease. But it is most common in kids who have a close contact with someone who has meningococcal disease.
- 2 Who should get meningococcal vaccine and when?**

Meningococcal vaccine is not routinely recommended for most people. People who should get the vaccine include:

 - U.S. Military recruits
 - People who might be affected during an outbreak of meningitis or meningococcal disease
 - Anyone traveling to, or living in, a part of the world where meningococcal disease is common, such as West Africa.
 - Anyone who has a damaged spleen, or whose spleen has been removed.
 - Anyone who has a blood or complement component deficiency or an immune system disorder.

The vaccine should also be considered for:

CHICKENPOX VACCINE

WHAT YOU NEED TO KNOW

- 1 Why get vaccinated?**

Chickenpox (also called varicella) is a common childhood disease. It is usually mild, but it can be serious, especially in young infants and adults.

 - The chickenpox virus can be spread from person to person through the air, or by contact with fluid from chickenpox blisters.
 - It causes a rash, itching, fever, and tiredness.
 - It can lead to severe skin infections, scars, pneumonia, brain damage, or death.
 - A person who has had chickenpox can get a painful rash called shingles years later.
 - About 12,000 people are hospitalized for chickenpox each year in the United States.
 - About 100 people die each year in the United States as a result of chickenpox.
- 2 Why do not get the vaccine until 15 years of age or older should get 2 doses, 4-6 weeks apart.**

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

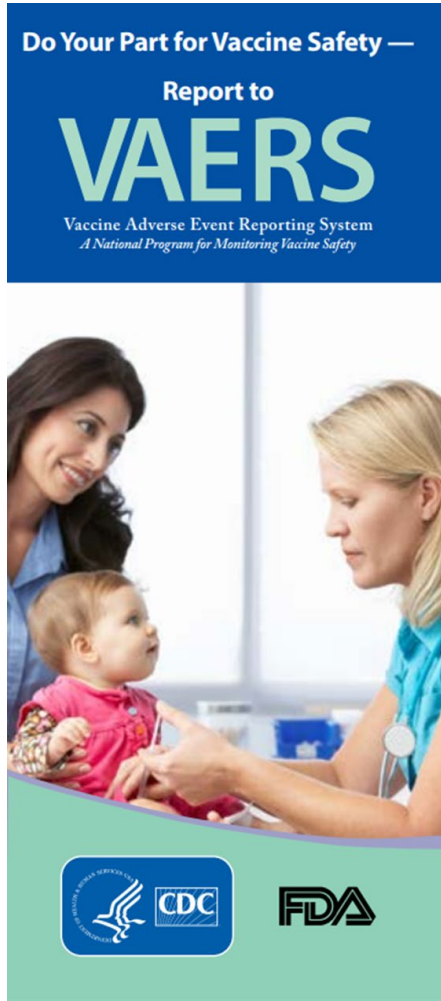
Ask your doctor or nurse for details.
- 3 Some people should not get chickenpox vaccine or should wait**
 - People should not get chickenpox vaccine if they have ever had a life-threatening allergic reaction to gelatin, the antibiotic neomycin, or (for those needing a second dose) a previous dose of chickenpox vaccine.
 - People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting chickenpox vaccine.



A 'Birth to Death' Immunization Registry

- Providers administering vaccines in Georgia must provide appropriate information to GRITS.
- GRITS personnel can work with your EHR/EMR vendor to create an interface between your system and GRITS.
- Use GRITS to generate reminders on medical records and/or notify patients when vaccines are needed.
- Assess your immunization rates using GRITS to improve patient care, HEDIS scores, and identify problem areas.

Monitoring Vaccine Safety



- **VAERS—Vaccine Adverse Event Reporting System**
 - Option 1 – Report Online to VAERS (Preferred)
 - Must be completed and submitted in one sitting
 - Option 2 – Report using a Writable PDF Form

If you need further assistance with reporting to VAERS, please email info@VAERS.org or call 1-800-822-7967.

- **FDA and Vaccine Data Link Safety Project**
- **VERP: VACCINE ERROR REPORTING SYSTEM**
 - ✓ On line reporting at <http://verp.ismp.org/>
 - ✓ Report even if no adverse events associated with incident
 - ✓ Will help identify sources of errors to help develop prevention strategies

Setting Up Your Office For Immunization Services

Operational & Financial



Setting Up Your Office for Immunization Services



Planning



Purchasing supplies



Storing vaccines



Administering vaccines

Setting Up Your Office for Immunization Service

Planning

- Conduct an Immunization Financial Analysis (Resource Kit)
- Obtain staff support
- Identify a vaccine coordinator
- Make a list of vaccines to be offered
- Obtain vaccination forms and reference materials
- Create standing orders
- Plan workflow and workspace
- Conduct staff training
- Inform patients about availability of vaccines (posters, fact sheets)
- Identify community resources

Annual influenza vaccine for all patients (+ other family members)

Tdap for pregnant women or anyone planning to have a child (consider household members)

HPV vaccine for women through age 45 years

Hepatitis B vaccine for women at risk

COVID-19 vaccine for all patients (+ other family members)

Consider These
Vaccines

Additional Steps

1

Revise assessment forms to include an immunization record.

2

Estimate the percent of individuals you are likely to immunize.

3

Estimate total number of required vaccine doses (Remember that some vaccines have a series).

Setting Up Your Office for Immunization Service

Purchasing

- Set up vaccine purchasing spreadsheet showing prices, terms, discounts, rebates, etc. (see resource kit)
- Purchase:
 - Storage equipment and certified thermometers
 - Administration supplies
 - Emergency response supplies
 - Vaccines (Most vaccines can be ordered online and arrive at the practice within 5 days)

Immunizations as a Profit Center?

- Choose the vaccines you will provide to your patients
- Determine the top third-party payers for your practice
- Calculate average reimbursement for each vaccine
- Calculate average reimbursement for administration fees
- Calculate the net revenue using the weighted average

Code Immunizations Properly!



Keep up with changes



Code for vaccine
administration



Code for diagnosis

Recommended Healthcare Personnel Vaccinations

- Hepatitis B (exposure risk) check immunity
- Influenza (annual)
- Measles, Mumps, Rubella (MMR)
- Varicella (Chickenpox)
- Tetanus, Diphtheria, Pertussis (Tdap)
- Meningococcal (recommended for microbiologists who are routinely exposed to isolates of *N. meningitidis*).
- COVID-19 vaccine

Are **YOU** up to date?

Healthcare Personnel Vaccination Recommendations¹

VACCINES AND RECOMMENDATIONS IN BRIEF

Hepatitis B – If previously unvaccinated, give a 2-dose (Heplisav-B) or 3-dose (Engerix-B or Recombivax HB) series. Give intramuscularly (IM). For HCP who perform tasks that may involve exposure to blood or body fluids, obtain anti-HBs serologic testing 1–2 months after dose #2 (for Heplisav-B) or dose #3 (for Engerix-B or Recombivax HB).

Influenza – Give 1 dose of influenza vaccine annually. Inactivated injectable vaccine is given IM. Live attenuated influenza vaccine (LAIV) is given intranasally.

MMR – For healthcare personnel (HCP) born in 1957 or later without serologic evidence of immunity or prior vaccination, give 2 doses of MMR, 4 weeks apart. For HCP born prior to 1957, see below. Give subcutaneously (Subcut).

Varicella (chickenpox) – For HCP who have no serologic proof of immunity, prior vaccination, or diagnosis or verification of a history of varicella or herpes zoster (shingles) by a healthcare provider, give 2 doses of varicella vaccine, 4 weeks apart. Give Subcut.

Tetanus, diphtheria, pertussis – Give 1 dose of Tdap as soon as feasible to all HCP who have not received Tdap previously and to pregnant HCP with each pregnancy (see below). Give Td or Tdap boosters every 10 years thereafter. Give IM.

Meningococcal – Give both MenACWY and MenB to microbiologists who are routinely exposed to isolates of *Neisseria meningitidis*. As long as risk continues: boost with MenB after 1 year, then every 2–3 years thereafter; boost with MenACWY every 5 years. Give MenACWY and MenB IM.

Hepatitis A, typhoid, and polio vaccines are not routinely recommended for HCP who may have on-the-job exposure to fecal material.

Hepatitis B

Unvaccinated healthcare personnel (HCP) and/or those who cannot document previous vaccination should receive either a 2-dose series of Heplisav-B at 0 and 1 month or a 3-dose series of either Engerix-B or Recombivax HB at 0, 1, and 6 months. HCP who perform tasks that may involve exposure to blood or body fluids should be tested for hepatitis B surface antibody (anti-HBs) 1–2 months after dose #2 of Heplisav-B or dose #3 of Engerix-B or Recombivax HB to document immunity.

- If anti-HBs is at least 10 mIU/mL (positive), the vaccinee is immune. No further serologic testing or vaccination is recommended.
- If anti-HBs is less than 10 mIU/mL (negative), the vaccinee is not protected from hepatitis B virus (HBV) infection, and should receive another 2-dose or 3-dose series of HepB vaccine on the routine schedule, followed by anti-HBs testing 1–2 months later. A vaccinee whose anti-HBs remains less than 10 mIU/mL after 2 complete series is considered a “non-responder.”

For non-responders: HCP who are non-responders should be considered susceptible to HBV and should be counseled regarding precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or probable parenteral exposure to hepatitis B surface antigen (HBsAg)-positive blood or blood with unknown HBsAg status. It is also possible that non-responders are people who are HBsAg positive. HBsAg testing is recommended. HCP found

to be HBsAg positive should be counseled and medically evaluated.

For HCP with documentation of a complete 2-dose (Heplisav-B) or 3-dose (Engerix-B or Recombivax HB) vaccine series but no documentation of anti-HBs of at least 10 mIU/mL (e.g., those vaccinated in childhood): HCP who are at risk for occupational blood or body fluid exposure might undergo anti-HBs testing upon hire or matriculation. See references 2 and 3 for details.

Influenza

All HCP, including physicians, nurses, paramedics, emergency medical technicians, employees of nursing homes and chronic care facilities, students in these professions, and volunteers, should receive annual vaccination against influenza. Live attenuated influenza vaccine (LAIV) may be given only to non-pregnant healthy HCP age 49 years and younger. Inactivated injectable influenza vaccine (IIV) is preferred over LAIV for HCP who are in close contact with severely immunosuppressed patients (e.g., stem cell transplant recipients) when they require protective isolation.

Measles, Mumps, Rubella (MMR)

HCP who work in medical facilities should be immune to measles, mumps, and rubella.

- HCP born in 1957 or later can be considered immune to measles, mumps, or rubella only if they have documentation of (a) laboratory confirmation of disease or immunity or (b) appropriate vaccination against measles, mumps, and rubella (i.e., 2 doses of live

measles and mumps vaccines given on or after the first birthday and separated by 28 days or more, and at least 1 dose of live rubella vaccine). HCP with 2 documented doses of MMR are not recommended to be serologically tested for immunity; but if they are tested and results are negative or equivocal for measles, mumps, and/or rubella, these HCP should be considered to have presumptive evidence of immunity to measles, mumps, and/or rubella and are not in need of additional MMR doses.

- Although birth before 1957 generally is considered acceptable evidence of measles, mumps, and rubella immunity, 2 doses of MMR vaccine should be considered for unvaccinated HCP born before 1957 who do not have laboratory evidence of disease or immunity to measles and/or mumps. One dose of MMR vaccine should be considered for HCP with no laboratory evidence of disease or immunity to rubella. For these same HCP who do not have evidence of immunity, 2 doses of MMR vaccine are recommended during an outbreak of measles or mumps and 1 dose during an outbreak of rubella.

Varicella

It is recommended that all HCP be immune to varicella. Evidence of immunity in HCP includes documentation of 2 doses of varicella vaccine given at least 28 days apart, laboratory evidence of immunity, laboratory confirmation of disease, or diagnosis or verification of a history of varicella or herpes zoster (shingles) by a healthcare provider.

Tetanus/Diphtheria/Pertussis (Td/Tdap)

All HCPs who have not or are unsure if they have previously received a dose of Tdap should receive a dose of Tdap as soon as feasible, without regard to the interval since the previous dose of Td. Pregnant HCP should be revaccinated during each pregnancy. All HCPs should then receive Td or Tdap boosters every 10 years thereafter.

Meningococcal

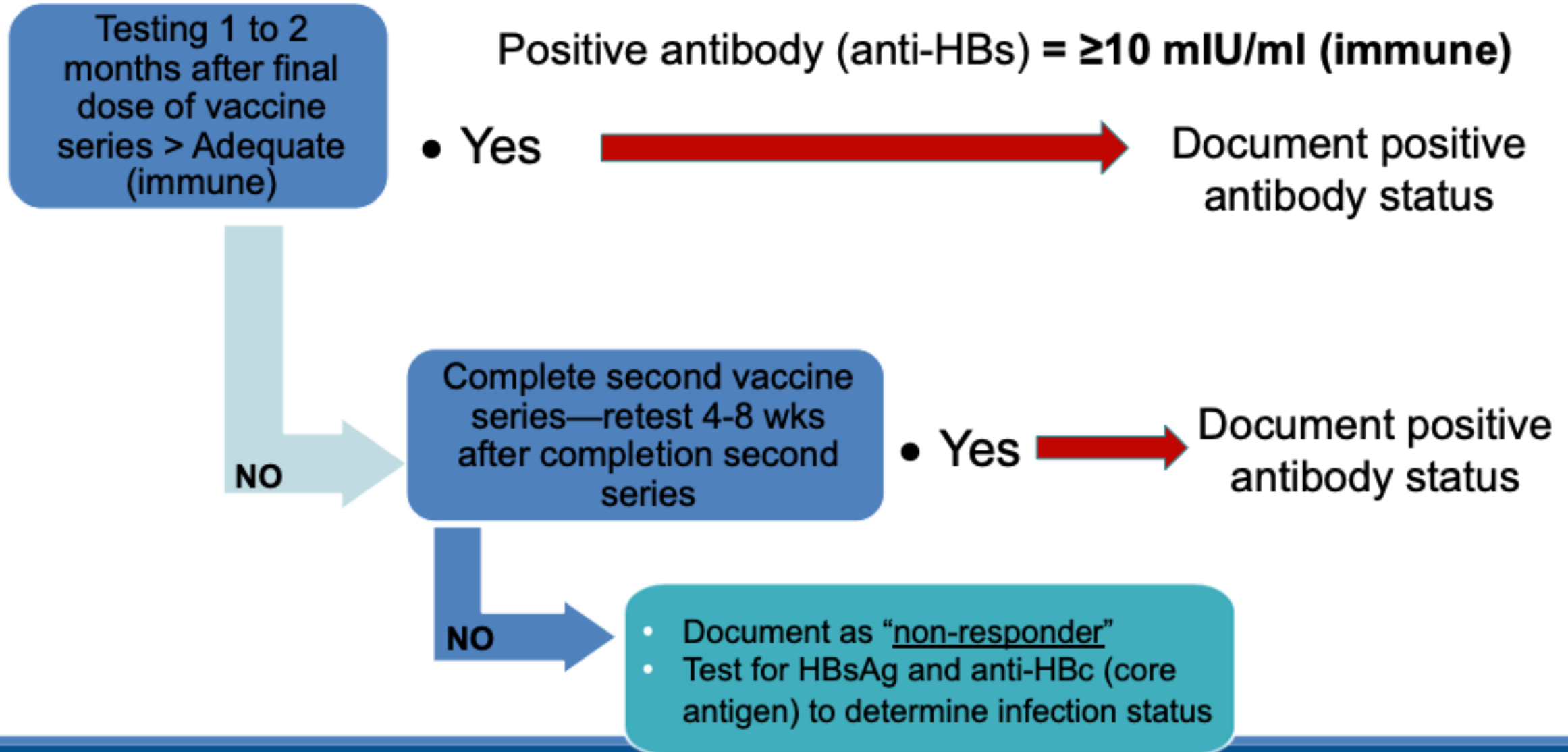
Vaccination with MenACWY and MenB is recommended for microbiologists who are routinely exposed to isolates of *N. meningitidis*. The two vaccines may be given concomitantly but at different anatomic sites, if feasible.

REFERENCES

- 1 CDC. Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*, 2011; 60(RR-7).
- 2 CDC. Prevention of Hepatitis B Virus Infection in the United States. Recommendations of the Advisory Committee on Immunization Practices. *MMWR*, 2018; 67(RRT):1–30.
- 3 IAC. Pre-exposure Management for Healthcare Personnel with a Documented Hepatitis B Vaccine Series Who Have Not Had Post-vaccination Serologic Testing. Accessed at www.immunize.org/catg.d/p2108.pdf.

For additional specific ACIP recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/index.html or visit IAC's website at www.immunize.org/acip.

Hepatitis B Immunization Status for Previously Vaccinated HCP - Post-vaccination Testing



Stay Current!

Sign up for listserv sites which provide timely information pertinent to your practice: www.immunize.org/resources/emailnews.asp

- AAP Newsletter
- CDC immunization websites (32 in all)
- CHOP Parents Pack Newsletter
- IAC Express, Needle Tips and Vaccinate Adults
- Websites specific to particular vaccines





**YOU ARE ALL PART OF THE TEAM THAT CAN
MAKE SURE YOUR PATIENTS RECEIVE THE
IMMUNIZATIONS THEY NEED!**

Online Resources*

Current Childhood and Adult Immunization Schedules –
www.cdc.gov/vaccines/schedules/index.html

Parent's Guide to Childhood Immunizations – www.cdc.gov/vaccines/parents/tools/parents-guide/index.html

Order Information for Free CDC Immunization Materials for Providers and Patients –
wwwn.cdc.gov/pubs/CDCInfoOnDemand.aspx

Vaccine Labels to Organize a Storage Unit –
www.cdc.gov/vaccines/hcp/admin/storage/guide/vaccine-storage-labels.pdf

Vaccine Information Statements (VISs) – www.cdc.gov/vaccines/hcp/vis/current-vis.html

Refusal to Vaccinate Form –

https://www.aap.org/en-us/documents/immunization_refusaltovaccinate.pdf

Standing Orders (Explanation and Templates) – www.immunize.org/standing-orders/

Ask the Experts – www.immunize.org/askexperts/

General Best Practice Guidelines for Immunization –

<https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html>

Questions?

Contacts for more immunization information and resources!

National Center for Immunization and Respiratory Diseases, CDC

E-mail	► NIPInfo@cdc.gov
Hotline	800.CDC.INFO
Website	http://www.cdc.gov/vaccines

Immunization Action Coalition

E-mail	admin@immunize.org
Phone	651.647.9009
Website	www.immunize.org

Georgia Immunization Program

E-mail	DPH-Immunization@dph.ga.gov
Hotline	404-657-3158
Website	http://dph.georgia.gov/immunization-section

Thank You!!

Additional EPIC Training Opportunity:
Breastfeeding Education



Scan to view all our upcoming Breastfeeding
& Immunization EPIC Programs!

Questions?

AAP Resources for Providers and Parents (Vaccine Campaign Toolkit)

Masks do not harm
children's speech
development.



Real Talk

Masks Do Not Harm Children's Speech
Development

Being around adults wearing
masks doesn't delay
babies' speech or language
development.



Real Talk

Being Around Adults Wearing Masks Doesn't
Delay Babies' Speech

Social Media Graphics



This is Their Shot!

Select Language



Select Platform



The Vaccine is Here!

Select Language



Select Platform



THE CONVERSATION™ ABOUT THE COVID VACCINES & KIDS

Presented with the American Academy of Pediatrics

Pediatricians answer questions about the **COVID-19 vaccines for children.**





de Beaumont
BOLD SOLUTIONS FOR HEALTHIER COMMUNITIES

LANGUAGE THAT WORKS TO IMPROVE VACCINE ACCEPTANCE

Communications Cheat Sheet

TIPS



TAILOR YOUR MESSAGE FOR YOUR AUDIENCE. Americans' perceptions about vaccines and their safety differ by political party, race, age, and geography.



EXPLAIN THE BENEFITS OF GETTING VACCINATED, NOT JUST THE CONSEQUENCES OF NOT DOING IT. Say, "Getting the vaccine will keep you and your family safe," rather than calling it "the right thing to do." Focus on the need to return to normal and reopen the economy.



TALK ABOUT THE PEOPLE BEHIND THE VACCINE. Refer to the scientists, the health and medical experts, and the researchers – not the science, health, and pharmaceutical companies.



AVOID JUDGMENTAL LANGUAGE WHEN TALKING ABOUT OR TO PEOPLE WHO ARE CONCERNED. Acknowledge their concern or skepticism and offer to answer their questions.



USE (AND REPEAT) THE WORD "EVERY" TO EXPLAIN THE VACCINE DEVELOPMENT PROCESS. For example: "Every study, every phase, and every trial was reviewed by the FDA and a safety board."



www.changingthecovidconversation.org

Use These Words MORE:

Use These Words LESS:

The benefits of taking it	The consequences of not taking it
Getting the vaccine will keep you safe	Getting the vaccine is the right thing to do
A return to normal	Predictability/certainty
Your family	Your community
Medical experts	Scientists/health experts
Research	Discover/create/invent
Medical researchers	Drug companies
Damage from lockdowns	Inability to travel easily and safely
A transparent, rigorous process	The dollars spent; number of participants
Safety	Security
Pharmaceutical companies	Drug companies
Advanced/groundbreaking	Historic
Vaccination	Injection/inoculation
America's leading experts	The world's leading experts
Skeptical/concerned about the vaccine	Misled/confused about the vaccine

CHANGING THE COVID CONVERSATION

Communications Cheat Sheet

Effective communication is always important in public health, but it's never been more important to understand the perceptions of Americans and modify your language accordingly. These recommendations are based on the "Changing the COVID Conversation" poll, conducted by Frank Luntz in partnership with the de Beaumont Foundation, Nov. 21-22, 2020. Learn more at debeaumont.org/changing-the-covid-conversation.

TIPS



FOCUS ON THE BENEFITS OF SUCCESS, NOT JUST THE CONSEQUENCES OF FAILURE.

- We understand that people are tired, but public health measures are not the enemy — they are the roadmap for a faster and more sustainable recovery.
- Scientists and medical professionals are developing and preparing to distribute a safe and effective vaccine that will help us return to normal day-to-day activities.



EMPHASIZE THAT THE SCIENCE IS SETTLED.

- The science is clear. There is no doubt that mask wearing, hand washing, and social distancing reduce the spread of COVID-19 and saves lives.



DON'T EXPECT PEOPLE TO TAKE PUBLIC HEALTH MEASURES BECAUSE IT'S GOOD FOR THEM. SPEAK TO THE CONSEQUENCES OF NOT TAKING THESE MEASURES.

- Because COVID-19 is highly infectious, one infection can quickly grow into an outbreak that could shutter a neighborhood, community, or entire city.



DON'T LET POLITICS OR PARTISANSHIP SLIP INTO YOUR MESSAGING, BECAUSE THAT WILL HARM YOUR CREDIBILITY. KEEP YOUR LANGUAGE NEUTRAL AND REPEATEDLY EMPHASIZE "EVERY" AND "ALL."

Use These Words MORE:

Use These Words LESS:

the pandemic	the coronavirus
eliminate/eradicate/get rid of the virus	defeat/crush/knock out the virus
social distancing	physical distancing
an effective and safe vaccine	a vaccine developed quickly
protocols	orders/imperatives/decrees
face masks	facial coverings
essential workers	frontline workers
personal responsibility	national duty
a stay-at-home order	a government lockdown/shutdown
public health agencies	government health agencies
policies that are based on facts/science/data	policies that are sensible/impactful/reasonable

Sample Language

SHORT: We all have a responsibility to slow the spread of COVID-19. It is imperative that we protect each other by doing things like wearing masks and practicing social distancing so we can return to a strong economy and normal day-to-day activities.

LONGER: We all want a return to normal, and we all want the economy and our schools to open. And we also want to protect our family and friends from the pandemic. Our finest medical researchers are clear: If we fail, there will be even worse consequences for our families and our economy.

We all have a personal responsibility to slow the spread of the pandemic and eliminate the virus as quickly as possible.

Therefore, it's imperative that we take an effective, fact-based approach ... by doing things like wearing face masks and practicing social distancing.

Let's do what needs to be done now so we can return to a strong economy and normal day-to-day activities.



de Beaumont
BOLD SOLUTIONS FOR HEALTHIER COMMUNITIES

Changing the COVID Conversation

2024 Childhood and Adolescent Immunization Schedules*

- Recommended Schedule for Children Ages 0-18 Years
- Catch-up Schedule
- Vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications

Changes

- Clarification of the charts
- Additional information in the Notes section

READ THE FOOTNOTES TO ACCESS SPECIFIC VACCINE ADMINISTRATION DETAILS!

