

Immunization 101

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Presenter Disclosure Information

I, Katie Reilly, have been asked to disclose any significant relationships with commercial entities that are either providing financial support for this program or whose products or services are mentioned during my presentations. I have no relationships to disclose.

I may discuss the use of vaccines in a manner not approved by the U.S. Food and Drug Administration

- But in accordance with ACIP recommendations

Outline

- Herd Immunity
- Types of vaccines
- 2020 Adult Immunization Schedule
- Screening prior to vaccination
- Contraindications and precautions to vaccination
- Vaccine Information Statements (VIS)
- Vaccine administration documentation requirements
- Vaccine Safety/VAERS Reporting
- Standards for Adult Immunization Practice
- Resources

Herd Immunity/Community Immunity

“A situation in which a sufficient proportion of a population is immune to an infectious disease (through vaccination and/or prior illness) to make its spread from person to person unlikely. Even individuals not vaccinated (such as newborns and those with chronic illnesses) are offered some protection because the disease has little opportunity to spread within the community.”

Retrieved from:

<https://www.cdc.gov/vaccines/terms/glossary.html#community>

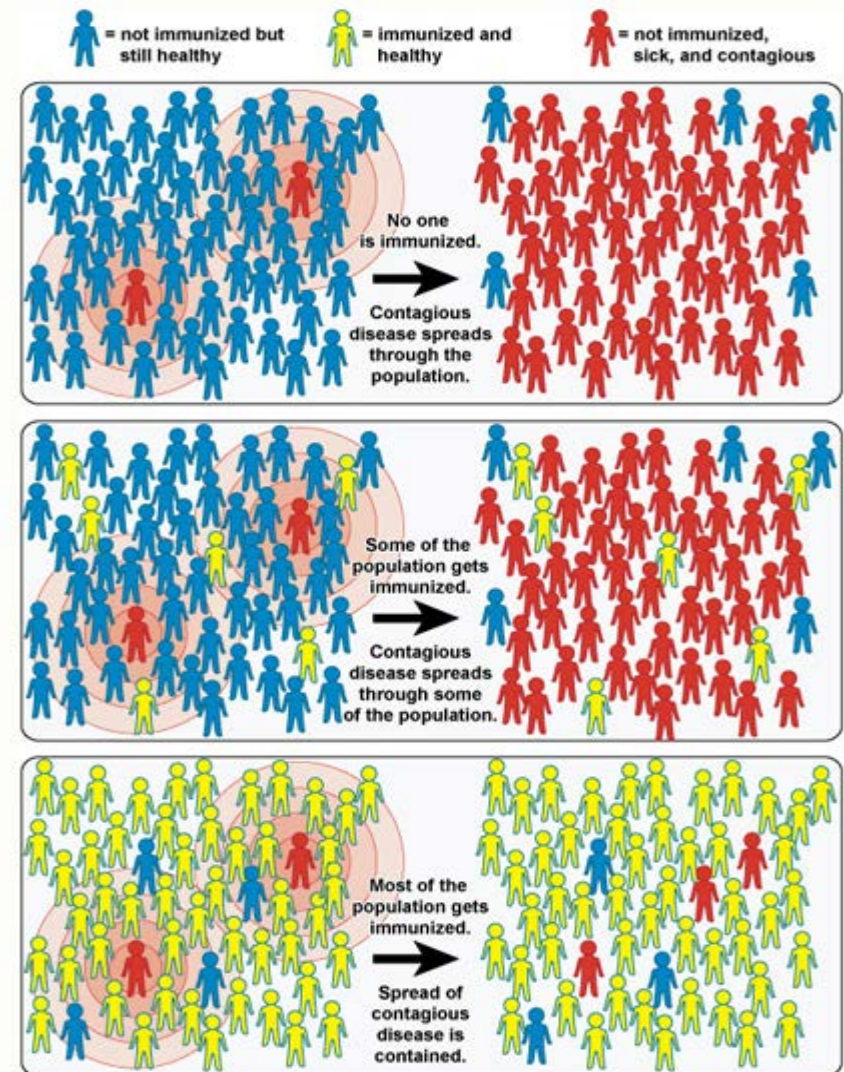


Photo credit: Courtesy: The National Institute of Allergy and Infectious Disease (NIAID)

Why Vaccinate?: Community Protection

Important for:

- Children/infants too young to be vaccinated
- Pregnant women
- People in whom vaccine-induced immunity has waned
- Immunosuppressed patients who cannot be vaccinated
- Elderly people who may not mount an adequate immune response to a vaccine
- People with inadequate access to vaccinations
- People who remain unvaccinated by choice

Live Attenuated Vaccines

- Attenuated (weakened) form of the “wild” virus or bacterium
- Must replicate to produce an immune response
- Immune response virtually identical to natural infection
- Usually produce immunity with one dose (except those administered orally)
- Severe reactions possible
- Interference from circulating antibody
- Fragile: must be stored and handled carefully
- Viral: measles, mumps, rubella, vaccinia, varicella, zoster, yellow fever, rotavirus, intranasal influenza, oral polio*
- Bacterial: BCG*, oral cholera, oral typhoid

*not available in the USA

<https://www.cdc.gov/vaccines/pubs/pinkbook/prinvac.html>

Inactivated Vaccines

- Cannot replicate
- Less affected by circulating antibody than live vaccines
- Always require multiple doses
- Immune response mostly humoral
- Antibody titer diminish with time
- May require periodic supplemental booster doses
- Whole cell vaccines:
 - Viral: polio, hepatitis A, rabies, influenza*
 - Bacterial: pertussis*, typhoid*, cholera*, plague*
- Fractional vaccines
 - Subunits: hepatitis B, influenza, acellular pertussis, HPV, anthrax
 - Toxoids: diphtheria, tetanus

*not available in the USA

<https://www.cdc.gov/vaccines/pubs/pinkbook/prinvac.html>

2020 Adult Immunization Schedule



MMWR Weekly / February 7, 2020 / 69(5); 133–135

Available at:

- <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6905a4-H.pdf>
- <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

Recommended Adult Immunization Schedule for ages 19 years or older

UNITED STATES
2020

How to use the adult immunization schedule

- 1** Determine recommended vaccinations by age (**Table 1**)
- 2** Assess need for additional recommended vaccinations by medical condition and other indications (**Table 2**)
- 3** Review vaccine types, frequencies, and intervals and considerations for special situations (**Notes**)

Vaccines in the Adult Immunization Schedule*

Vaccines	Abbreviations	Trade names
<i>Haemophilus influenzae</i> type b vaccine	Hib	ActHIB® Hiberix® PedvaxHIB®
Hepatitis A vaccine	HepA	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix®
Hepatitis B vaccine	HepB	Engerix-B® Recombivax HB® Heplisav-B®
Human papillomavirus vaccine	HPV vaccine	Gardasil 9®
Influenza vaccine (inactivated)	IIV	Many brands
Influenza vaccine (live, attenuated)	LAIV	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R® II
Meningococcal serogroups A, C, W, Y vaccine	MenACWY	Menactra® Menveo®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Pneumococcal 13-valent conjugate vaccine	PCV13	Prevnar 13®
Pneumococcal 23-valent polysaccharide vaccine	PPSV23	Pneumovax® 23
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®
Zoster vaccine, recombinant	RZV	Shingrix
Zoster vaccine live	ZVL	Zostavax®

*Administer recommended vaccines if vaccination history is incomplete or unknown. Do not restart or add doses to vaccine series if there are extended intervals between doses. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

Recommended by the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/acip) and approved by the Centers for Disease Control and Prevention (www.cdc.gov), American College of Physicians (www.acponline.org), American Academy of Family Physicians (www.aafp.org), American College of Obstetricians and Gynecologists (www.acog.org), and American College of Nurse-Midwives (www.midwife.org).

Report

- Suspected cases of reportable vaccine-preventable diseases or outbreaks to the local or state health department
- Clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System at www.vaers.hhs.gov or 800-822-7967

Injury claims

All vaccines included in the adult immunization schedule except pneumococcal 23-valent polysaccharide (PPSV23) and zoster (RZV, ZVL) vaccines are covered by the Vaccine Injury Compensation Program. Information on how to file a vaccine injury claim is available at www.hrsa.gov/vaccinecompensation.

Questions or comments

Contact www.cdc.gov/cdc-info or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.–8 p.m. ET, Monday through Friday, excluding holidays.



Download the CDC Vaccine Schedules App for providers at www.cdc.gov/vaccines/schedules/hcp/schedule-app.html.

Helpful information

- Complete ACIP recommendations: www.cdc.gov/vaccines/hcp/acip-recs/index.html
- General Best Practice Guidelines for Immunization (including contraindications and precautions): www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html
- Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html
- Manual for the Surveillance of Vaccine-Preventable Diseases (including case identification and outbreak response): www.cdc.gov/vaccines/pubs/surv-manual
- Travel vaccine recommendations: www.cdc.gov/travel
- Recommended Child and Adolescent Immunization Schedule, United States, 2020: www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html



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

CS310021-A

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2020

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
Influenza inactivated (IIV) or Influenza recombinant (RIV) or Influenza live, attenuated (LAIV)	1 dose annually			
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap, then Td or Tdap booster every 10 years			
Measles, mumps, rubella (MMR)	2 doses depending on indication (if born in 1957 or later)			
Varicella (VAR)	2 doses (if born in 1980 or later)			
Zoster recombinant (RZV) (preferred) or Zoster live (ZVL)	2 doses or 1 dose			
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal conjugate (PCV13)	1 dose			65 years and older
Pneumococcal polysaccharide (PPSV23)	1 or 2 doses depending on indication			1 dose
Hepatitis A (HepA)	2 or 3 doses depending on vaccine			
Hepatitis B (HepB)	2 or 3 doses depending on vaccine			
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			
<i>Haemophilus influenzae</i> type b (Hib)	1 or 3 doses depending on indication			

Age groups 19–21 years and 22–26 years have been combined

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

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 1 Recommended Adult Immunization Schedule by Age Group, United States, 2020

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
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Tetanus, diphtheria, pertussis (Tdap or Td)	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)			
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV) (preferred) ^{or} Zoster live (ZVL)			2 doses	2 doses
			1 dose	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal conjugate (PCV13)	1 dose			65 years and older
Pneumococcal polysaccharide (PPSV23)	1 dose			1 dose
Hepatitis A (HepA)	1 dose			
Hepatitis B (HepB)	2 or 3 doses depending on vaccine			
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			

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

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 1 Recommended Adult Immunization Schedule by Age Group, United States, 2020

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Tetanus, diphtheria, pertussis (Tdap or Td)	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)			
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV) (preferred) or Zoster live (ZVL)				
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal conjugate (PCV13)	1 dose			65 years and older
Pneumococcal polysaccharide (PPSV23)	1 or 2 doses depending on indication			1 dose
Hepatitis A (HepA)	2 or 3 doses depending on vaccine			
Hepatitis B (HepB)	2 or 3 doses depending on vaccine			
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			
<i>Haemophilus influenzae</i> type b (Hib)	1 or 3 doses depending on indication			

Blue shading indicates shared clinical decision-making

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

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 and Other Indications, United States, 2020

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease; or on hemodialysis	Heart or lung disease, alcoholism ¹	Chronic liver disease	Diabetes	Health care personnel ²	Men who have sex with men	
			<200	≥200								
IIV or RIV or LAIV	1 dose annually											
	NOT RECOMMENDED					PRECAUTION				1 dose annually or		
Tdap or Td	1 dose Tdap each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years										
MMR	NOT RECOMMENDED			1 or 2 doses depending on indication								
VAR	NOT RECOMMENDED			2 doses								
RZV (preferred) or ZVL	DELAY				2 doses at age ≥50 years or							
	NOT RECOMMENDED				1 dose at age ≥60 years							
HPV	DELAY	3 doses through age 26 years			2 or 3 doses through age 26 years							
PCV13		1 dose										
PPSV23		1, 2, or 3 doses depending on age and indication										
HepA					2 or 3 doses depending on vaccine							
HepB												
MenACWY	1 or 2 doses depending on indication, see notes for booster recommendation											
MenB	PRECAUTION	2 or 3 doses depending on vaccine and indication										
Hib		3 doses HSCT ³ recipients only			1 dose							

Red text states not recommended instead of contraindicated

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

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

Precaution—vaccination might be indicated if benefit of protection outweighs risk of adverse reaction

Delay vaccination until after pregnancy if vaccine is indicated

Not recommended/contraindicated—vaccine should not be administered

No recommendation/Not applicable

Red text states not recommended instead of contraindicated

1. Precaution for LAIV does not apply to alcoholism. 2. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations. 3. Hematopoietic stem cell transplant.

Table 2 Recommended Adult Immunization Schedule by Medical Condition and Other Indications, United States, 2020

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease; or on hemodialysis	Heart or lung disease, alcoholism ¹	Chronic liver disease	Diabetes	Health care personnel ²	Men who have sex with men
			<200	≥200							
IIV or RIV or LAIV	1 dose annually										
	NOT RECOMMENDED				PRECAUTION				1 dose annually		
Tdap or Td	1 dose Tdap each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years									
MMR	NOT RECOMMENDED			1 or 2 doses depending on indication							
VAR	NOT RECOMMENDED			2 doses							
RZV (preferred) or ZVL	DELAY				2 doses at age ≥50 years						
	NOT RECOMMENDED				1 dose at age ≥60 years						
HPV	DELAY	3 doses through age 26 years			2 or 3 doses through age 26 years						
PCV13											
PPSV23		2 doses depending on age and indication									
HepA		2 or 3 doses depending on vaccine									
HepB		2 or 3 doses depending on vaccine									
MenACWY	1 or 2 doses depending on indication, see notes for booster recommendations										
MenB	PRECAUTION	2 or 3 doses depending on vaccine and indication, see notes for booster recommendations									
Hib		3 doses HSCT ³ recipients only		1 dose							

HPV row combined for males and females

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection
Recommended vaccination for adults with an additional risk factor or another indication
Precaution—vaccination might be indicated if benefit of protection outweighs risk of adverse reaction
Delay vaccination until after pregnancy if vaccine is indicated
Not recommended/contraindicated—vaccine should not be administered
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1. Precaution for LAIV does not apply to alcoholism. 2. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations. 3. Hematopoietic stem cell transplant.

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			<200	≥200							
IIV or RIV or LAIV											1 dose annually
					NOT RECOMMENDED		PRECAUTION				1 dose annually
Tdap or Td	1 dose Tdap each pregnancy										1 dose Tdap, then Td or Tdap booster every 10 years
MMR		NOT RECOMMENDED									1 or 2 doses depending on indication
VAR		NOT RECOMMENDED									2 doses
RZV (preferred) or ZVL	DELAY										2 doses at age ≥50 years or 1 dose at age ≥60 years
HPV	DELAY				3 doses through age 26 years						age 26 years
PCV13											
PPSV23											depending on age and indication
HepA											doses depending on vaccine
HepB											2 or 3 doses depending on vaccine
MenACWY											1 or 2 doses depending on indication, see notes for booster recommendations
MenB	PRECAUTION										2 or 3 doses depending on vaccine and indication, see notes for booster recommendations
Hib											3 doses HSCT ³ recipients only 1 dose

HepA vaccine recommended for all persons ≥1 year living with HIV

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection
 Recommended vaccination for adults with an additional risk factor or another indication
 Precaution—vaccination might be indicated if benefit of protection outweighs risk of adverse reaction
 Delay vaccination until after pregnancy if vaccine is indicated
 Not recommended/contraindicated—vaccine should not be administered
 No recommendation/Not applicable

1. Precaution for LAIV does not apply to alcoholism. 2. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations. 3. Hematopoietic stem cell transplant.

Notes

Recommended Adult Immunization Schedule, United States, 2020

Haemophilus influenzae type b vaccination

Special situations

- **Anatomical or functional asplenia (including sickle cell disease):** 1 dose if previously did not receive Hib; if elective splenectomy, 1 dose, preferably at least 14 days before splenectomy
- **Hematopoietic stem cell transplant (HSCT):** 3-dose series 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history

Hepatitis A vaccination

Routine vaccination

- **Not at risk but want protection from hepatitis A** (identification of risk factor not required): 2-dose series HepA (Havrix 6–12 months apart or Vaxta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2/5 months between doses 2 and 3])

Special situations

- **At risk for hepatitis A virus infection:** 2-dose series HepA or 3-dose series HepA-HepB as above
 - **Chronic liver disease** (e.g., persons with hepatitis B, hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)
 - **HIV infection**
 - **Men who have sex with men**
 - **Injection or noninjection drug use**
 - **Persons experiencing homelessness**
 - **Work with hepatitis A virus** in research laboratory or with nonhuman primates with hepatitis A virus infection
 - **Travel in countries with high or intermediate endemic hepatitis A**
 - **Close, personal contact with international adoptee** (e.g., household or regular babysitting) in first 60 days after arrival from country with high or intermediate endemic hepatitis A (administer dose 1 as soon as adoption is planned, at least 2 weeks before adoptee's arrival)

- **Pregnancy** if at risk for infection or severe outcome from infection during pregnancy
- **Settings for exposure, including** health care settings targeting services to injection or noninjection drug users or group homes and nonresidential day care facilities for developmentally disabled persons (individual risk factor screening not required)

Hepatitis B vaccination

Routine vaccination

- **Not at risk but want protection from hepatitis B** (identification of risk factor not required): 2- or 3-dose series (2-dose series Heplisav-B at least 4 weeks apart [2-dose series HepB only applies when 2 doses of Heplisav-B are used at least 4 weeks apart] or 3-dose series Engerix-B or Recombivax HB at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2/8 weeks between doses 2 and 3/16 weeks between doses 1 and 3]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: 4 weeks between doses 1 and 2/5 months between doses 2 and 3])

Special situations

- **At risk for hepatitis B virus infection:** 2-dose (Heplisav-B) or 3-dose (Engerix-B, Recombivax HB) series or 3-dose series HepA-HepB (Twinrix) as above
 - **Chronic liver disease** (e.g., persons with hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice upper limit of normal)
 - **HIV infection**
 - **Sexual exposure risk** (e.g., sex partners of hepatitis B surface antigen [HBsAg]-positive persons; sexually active persons not in mutually monogamous relationships; persons seeking evaluation or treatment for a sexually transmitted infection; men who have sex with men)
 - **Current or recent injection drug use**
 - **Percutaneous or mucosal risk for exposure to blood** (e.g., household contacts of HBsAg-positive persons; residents and staff of facilities for developmentally disabled persons; health care and public safety personnel with reasonably anticipated risk for

- exposure to blood or blood-contaminated body fluids; hemodialysis, peritoneal dialysis, home dialysis, and predialysis patients; persons with diabetes mellitus age younger than 60 years and, at discretion of treating clinician, those age 60 years or older)
- **Incarcerated persons**
- **Travel in countries with high or intermediate endemic hepatitis B**
- **Pregnancy** if at risk for infection or severe outcome from infection during pregnancy (Heplisav-B not currently recommended due to lack of safety data in pregnant women)

Human papillomavirus vaccination

Routine vaccination

- **HPV vaccination recommended for all adults through age 26 years:** 2- or 3-dose series depending on age at initial vaccination or condition:
 - **Age 15 years or older at initial vaccination:** 3-dose series at 0, 1–2, 6 months (minimum intervals: 4 weeks between doses 1 and 2/12 weeks between doses 2 and 3/5 months between doses 1 and 3; repeat dose if administered too soon)
 - **Age 9 through 14 years at initial vaccination and received 1 dose or 2 doses less than 5 months apart:** 1 dose
 - **Age 9 through 14 years at initial vaccination and received 2 doses at least 5 months apart:** HPV vaccination complete, no additional dose needed.
- **If completed valid vaccination series with any HPV vaccine, no additional doses needed**

Shared clinical decision-making

- **Age 27 through 45 years based on shared clinical decision-making:**
 - 2- or 3-dose series as above

Special situations

- **Pregnancy through age 26 years:** HPV vaccination is not recommended until after pregnancy; no intervention needed if vaccinated while pregnant; pregnancy testing not needed before vaccination

The Provider's Role

Immunization providers can help to ensure the safety and efficacy of vaccines through proper:

- Vaccine storage and administration
- Timing and spacing of vaccine doses
- Observation of contraindications and precautions
- Management of adverse reactions
- Reporting to VAERS
- Benefit and risk communication

<http://www.cdc.gov/vaccines/pubs/pinkbook/safety.html>

Seven Rights of Vaccine Administration

- Right Patient
- Right Time
- Right Vaccine (and Diluent)
- Right Dosage
- Right Route, Needle, Technique
- Right Injection Site
- Right Documentation

<http://www.immunize.org/technically-speaking/20141101.asp>

Influenza Vaccine Products for the 2019–2020 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
GlaxoSmithKline	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
		5.0 mL (multi-dose vial)	<25	6 months & older ³	158	90688
Sanofi Pasteur	Flublok (RIV4)	0.5 mL (single-dose syringe)	0	18 years & older	185	90682
	Fluzone (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months ³	161	90685
		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)	25	6 through 35 months ³	158	90687
		5.0 mL (multi-dose vial)	25	3 years & older	158	90688
	Fluzone High-Dose (IIV3-HD)	0.5 mL (single-dose syringe)	0	65 years & older	135	90662
Seqirus	Afluria (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months ³	161	90685
		0.5 mL (single-dose syringe)	0	3 years & older ³	150	90686
		5.0 mL (multi-dose vial)	24.5	6 through 35 months ³	158	90687
		5.0 mL (multi-dose vial)	24.5	3 years & older ⁴	158	90688
	Fluad (aIIV3)	0.5 mL (single-dose syringe)	0	65 years & older	168	90653
	Flucelvax (ccIIV4)	0.5 mL (single-dose syringe)	0	4 years & older	171	90674
		5.0 mL (multi-dose vial)	25	4 years & older	186	90756

NOTES

1. IIV3/IIV4 – egg-based trivalent/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); aIIV3 – adjuvanted trivalent 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
- 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.

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org | www.immunize.org/catg.d/p4072.pdf • Item #P4072 (9/10/19)

<http://www.immunize.org/catg.d/p4072.pdf>

Screening

- Is key to preventing serious adverse reactions
- Specific questions intended to identify contraindications or precautions to vaccination
- Screening must occur at every immunization encounter (not just before the first dose)
- Use of a standardized form will facilitate effective screening

<https://www.cdc.gov/vaccines/pubs/pinkbook/genrec.html>

Immunization Action Coalition (IAC) Screening Forms

- Child and Teen Immunizations
- Adult Immunizations
- Seasonal Influenza

<http://www.immunize.org/handouts/screening-vaccines.asp>

Screening Checklist for Contraindications to Vaccines for Adults

PATIENT NAME _____

DATE OF BIRTH _____ / _____ / _____
month / day / year

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

	yes	no	don't know
1. Are you sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you have allergies to medications, food, a vaccine component, or latex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you ever had a serious reaction after receiving a vaccination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you have a long-term health problem with heart, lung, kidney, or metabolic disease (e.g., diabetes), asthma, a blood disorder, no spleen, complement component deficiency,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the references in Notes below.

NOTE: For supporting documentation on the answers given below, go to the specific ACIP vaccine recommendation found at the following website: www.cdc.gov/vaccines/hcp/acip-recs/index.html

1. Are you sick today? [all vaccines]

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events. However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (e.g., upper respiratory infections, diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

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

An anaphylactic reaction to latex is a contraindication to vaccines that contain latex as a component or as part of the packaging (e.g., vial stoppers, prefilled syringe plungers, prefilled syringe caps). If a person has anaphylaxis after eating gelatin, do not administer vaccines containing gelatin. A local reaction to a prior vaccine dose or vaccine component, including latex, is not a contraindication to a subsequent dose or vaccine containing that component. For information on vaccines supplied in vials or syringes containing latex, see www.cdc.gov/vaccines-pubs/pinkbook/downloads/appendices/B/latex-table.pdf; for an extensive list of vaccine components, see www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/exipient-table-2.pdf.

People with egg allergy of any severity can receive any IIV, RIV, or LAIV that is otherwise appropriate for the patient's age and health status. The safety of LAIV in egg allergic people has not been established. For people with a history of severe allergic reaction to egg involving any symptom other than hives (e.g., angioedema, respiratory distress), or who required epinephrine or another emergency medical intervention, the vaccine should be administered in a medical setting, such as a clinic, health department, or physician office. Vaccine administration should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.

3. Have you ever had a serious reaction after receiving a vaccination? [all vaccines]

History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication to subsequent doses. Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

NOTE: For summary information on contraindications and precautions to vaccines, go to the ACIP's General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html

7. In the past 3 months, have you taken medications that affect your immune system, such as cortisone, prednisone, other steroids, or anticancer drugs; drugs for the treatment of rheumatoid arthritis, Crohn's disease, or psoriasis; or have you had radiation treatments? [LAIV, MMR, VAR, ZVL]

Live virus vaccines (e.g., LAIV, MMR, VAR, ZVL) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, see references in Notes above. Some immune mediator and immune modulator drugs (especially the anti-tumor necrosis factor agents adalimumab, infliximab, etanercept, golimumab, and certolizumab pegol) may be immunosuppressive. A comprehensive list of immunosuppressive immune modulators is available in CDC Health Information for International Travel (the "Yellow Book") available at wwwnc.cdc.gov/travel/yellowbook/2018/advising-travelers-with-specific-needs/immunocompromised-travelers. The use of live virus vaccines should be avoided in persons taking these drugs. To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see references in Notes above. LAIV can be given only to healthy non-pregnant people ages 2 through 49 years.

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

Tdap is contraindicated in people who have a history of encephalopathy within 7 days following DTP/DTaP. An unstable progressive neurologic problem is a precaution to the use of Tdap. For people with stable neurologic disorders (including seizures) unrelated to vaccination, or for people with a family history of seizure, vaccinate as usual. A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-toxoid vaccine and decision is made to continue vaccination, give Tdap instead of Td if no history of prior Tdap; 2) Influenza vaccine (IIV/LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccine, vaccinate with IIV if at increased risk for severe influenza complications.

9. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? [MMR, VAR]

Certain live virus vaccines (e.g., MMR, VAR) may need to be deferred, depending on several variables. Consult General Best Practice Guidelines for Immunization (referenced in Notes above) for current information on intervals between antiviral

Contraindication and Precautions

Contraindications

- Conditions in a recipient that increases the risk for a serious adverse reaction
- A vaccine should not be administered when a contraindication is present

Precaution

- A precaution is a condition in a recipient that might increase the risk for a serious adverse reaction, might cause diagnostic confusion, or might compromise the ability of the vaccine to produce immunity
- In general, vaccinations should be deferred when a precaution is present. However, a vaccination might be indicated in the presence of a precaution if the benefit of protection from the vaccine outweighs the risk for an adverse reaction.

Because the majority of contraindications and precautions are temporary, vaccinations often can be administered later when the condition leading to a contraindication or precaution no longer exists

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

Contraindications & Precautions In Adults

CDC's General Best Practice Guidelines for Immunization

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

Immunization Action Coalition

<http://www.immunize.org/catg.d/p3072.pdf>

Vaccine	Citation	Contraindications	Precautions
DT, Td	(4)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	GBS <6 weeks after previous dose of tetanus-toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine Moderate or severe acute illness with or without fever
DTaP	(38)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP or DTaP	Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized GBS <6 weeks after previous dose of tetanus-toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine Moderate or severe acute illness with or without fever
Hepatitis A	(39)	Severe allergic reaction (e.g., anaphylaxis) after	Moderate or severe acute illness with or without fever

Guide to Contraindications and Precautions to Commonly Used Vaccines in Adults^{1,*}

Vaccine	Contraindications ¹	Precautions ¹
Influenza, inactivated (IIV)² Influenza, recombinant (RIV)²	<ul style="list-style-type: none"> For IIV: Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine (except egg) or to a previous dose of influenza vaccine² For RIV: Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or to a previous dose of influenza vaccine² 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever History of Guillain-Barré Syndrome (GBS) within 6 weeks of previous influenza vaccination Egg allergy other than hives (e.g., angioedema, respiratory distress, lightheadedness, or recurrent emesis); or required epinephrine or another emergency medical intervention (IIV may be administered in a medical setting, under the supervision of a healthcare provider who is able to recognize and manage severe allergic conditions)²
Influenza, live attenuated (LAIV)^{2,3,4}	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine (except egg), or to a previous dose of influenza vaccine² Pregnancy Immunocompromised due to any cause (including immunosuppression caused by medications or by HIV infection) Close contacts and caregivers of severely immunosuppressed persons who require a protective environment Receipt of influenza antivirals within the previous 48 hours 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever GBS within 6 weeks of previous influenza vaccination Asthma Other chronic medical conditions (e.g., other chronic lung diseases, chronic cardiovascular disease [excluding isolated hypertension], diabetes, chronic renal or hepatic disease, hematologic disease, neurologic disease, and metabolic disorders)
Tetanus, diphtheria, pertussis (Tdap) Tetanus, diphtheria (Td)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component For pertussis-containing vaccines: encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures) not attributable to another identifiable cause within 7 days of administration of a previous dose of a vaccine containing tetanus or diphtheria toxoid or acellular pertussis. 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever GBS within 6 weeks after a previous dose of tetanus toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine For Tdap only: progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy; defer until a treatment regimen has been established and the condition has stabilized
Measles, mumps, rubella (MMR)³	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Severe immunodeficiency (e.g., hematologic and solid tumors, chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy³), or persons with human immunodeficiency virus [HIV] infection who are severely immunocompromised Family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents and siblings), unless the immune competence of the potential vaccine recipient has been substantiated 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁵ History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing⁷ or interferon-gamma release assay (IGRA) testing

Vaccine Information Statements (VISs)

Healthcare provider requirements

- Public and private providers
- Give VISs **before** vaccine is administered
- Applies to **every dose** of a vaccine series not just the first dose
- Opportunities for questions should be provided before each vaccination
- A practice may produce permanent, laminated, office copies of each VIS, which may be read by recipients prior to vaccination
- VISs may be reviewed on a computer monitor (or any video display)
- Offer a copy of the VISs to take away
- Available in multiple languages

<http://www.cdc.gov/vaccines/hcp/vis/about/facts-vis.html#give>

Your Sources for VISs



New and Revised VISs
Check here for weekly updates

<http://www.cdc.gov/vaccines/hcp/vis/index.html>



Get Email Updates

To receive email updates about this page, enter your email address:

[What's this?](#)

Submit

Current VIS Dates

Check your stock of VISs against this list. If you have outdated VISs, get current versions.

Adenovirus	1/8/20	MMRV	8/15/19
Anthrax	1/8/20	Multi-vaccine	11/5/15
Cholera	10/30/19	PCV13	10/30/19
DTaP	8/24/18	PPSV	10/30/19
Hepatitis A	7/20/16	Polio	10/30/19
Hepatitis B	8/15/19	Rabies	1/8/20
Hib	10/30/19	Rotavirus	10/30/19
HPV	10/30/19	Td	4/11/17
Influenza	8/15/19	Tdap	2/24/15
J. enceph.	8/15/19	Typhoid	10/30/19
MenACWY	8/15/19	Varicella	8/15/19
MenB	8/15/19	Yellow fever	3/30/11
MMR	8/15/19	Zoster	10/30/19

PRINT VERSION

<http://www.immunize.org/vis/>

Administering Vaccines to Adults:

Dose, Route, Site, and Needle Size

Vaccine	Dose
Hepatitis A (HepA)	≤18 yrs: 0.5 mL ≥19 yrs: 1.0 mL
Hepatitis B (HepB)	Engerix-B; Recombivax ≥20 yrs: 1.0 mL ≤19 yrs: 0.5 mL Heplisav-B ≥18 yrs: 0.5 mL
HepA-HepB (Twinrix)	≥18 yrs: 1.0 mL
Human papillomavirus (HPV)	0.5 mL
Influenza, live attenuated (LAIV)	0.2 mL (0.1 mL in each nostril)
Influenza, inactivated (IIV) and recombinant (RIV)	0.5 mL
Measles, Mumps, Rubella (MMR)	0.5 mL
Meningococcal serogroups A, C, W, Y (MenACWY)	0.5 mL
Meningococcal serogroup B (MenB)	0.5 mL
Pneumococcal conjugate (PCV13)	0.5 mL
Pneumococcal polysaccharide (PPSV 23)	0.5 mL
Tetanus, Diphtheria (Td) with Pertussis (Tdap)	0.5 mL
Varicella (VAR)	0.5 mL
Zoster (Zos)	Shingrix: 0.5* mL Zostavax: 0.65 mL

* The vial might contain more.
Do not administer more.

Vaccines with Diluents: How to Use Them

Be sure to reconstitute the following vaccines correctly before administering them! Reconstitution means that the lyophilized (freeze-dried) vaccine powder or wafer in one vial must be reconstituted (mixed) with the diluent (liquid) in another.

- Only use the diluent provided by the manufacturer for that vaccine as indicated on the chart.
- ALWAYS check the expiration date on the diluent and vaccine. NEVER use expired diluent or vaccine.

Vaccine product name	Manufacturer	Lyophilized vaccine (powder)	Liquid diluent (may contain vaccine)	Time allowed between reconstitution and use, as stated in package insert [†]	Diluent storage environment
ActHIB (Hib)	Sanofi Pasteur	Hib	0.4% sodium chloride	24 hrs	Refrigerator
Hiberix (Hib)	GlaxoSmithKline	Hib	0.9% sodium chloride	24 hrs	Refrigerator or room temp
Imovax (RAB _{HDCV})	Sanofi Pasteur	Rabies virus	Sterile water	Immediately [†]	Refrigerator
M-M-R II (MMR)	Merck	MMR	Sterile water	8 hrs	Refrigerator or room temp
Menveo (MenACWY)	GlaxoSmithKline	MenA	MenCWY	8 hrs	Refrigerator
Pentacel (DTaP-IPV/Hib)	Sanofi Pasteur	Hib	DTaP-IPV	Immediately [†]	Refrigerator
ProQuad (MMRV)	Merck	MMRV	Sterile water	30 min	Refrigerator or room temp
RabAvert (RAB _{PCECV})	GlaxoSmithKline	Rabies virus	Sterile water	Immediately [†]	Refrigerator
Rotarix (RV1) [‡]	GlaxoSmithKline	RV1	Sterile water, calcium carbonate, and xanthan	24 hrs	Refrigerator or room temp
Shingrix (RZV)	GlaxoSmithKline	RZV	AS01B [§] adjuvant suspension	6 hrs	Refrigerator
Varivax (VAR)	Merck	VAR	Sterile water	30 min	Refrigerator or room temp
YF-VAX (YF)	Sanofi Pasteur	YF	0.9% sodium chloride	60 min	Refrigerator or room temp
Zostavax (ZVL)	Merck	LZV	Sterile water	30 min	Refrigerator or room temp

<http://www.immunize.org/catg.d/p3084.pdf>

<http://www.immunize.org/catg.d/p3040.pdf>

Healthcare Provider Documentation Requirements

Providers must ensure that the recipient's permanent medical record (whether paper-based or electronic) contains all of the required vaccine administration documentation, which shall consist of the following:

- Date of administration of the vaccine
- Vaccine manufacturer and lot number of the vaccine
- Name and title of person administering the vaccine
- Address of clinic where vaccine was given
- The address of the facility where the permanent record will reside (if appropriate)
- Edition date printed on the appropriate VIS
- Date the VIS was given to the patient, or the parents/guardian
- We also recommend that the vaccine type, dose, site, route of administration be documented, and any vaccine refusal (if appropriate).

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/vac-admin.pdf>

MDPH Vaccine Administration Record

Vaccine Administration Record – All Ages

Record No. / Insurance No.: _____

Patient Name: _____

Address: _____

Birth Date: _____ Gender: _____

Clinic Name and Address: _____

Use Reverse Side for Names and Initials of Vaccine Administrators

Vaccine administrator: Provide the patient, parent or legal representative with the most recent copy of the Vaccine Information Statement (VIS), which explains risks and benefits of vaccine, for **each** dose of vaccine given.

Type of Vaccine: Record the generic abbreviation for the type of vaccine given (e.g., DTaP), not the trade name. For combination vaccines, indicate the type (e.g., DTaP-Hib) and all other information for each individual antigen (e.g., in the DTP and Hib sections) comprising the combination. Document all lot numbers for each component.

Vaccine	Type of Vaccine	Date Given M/D/Y	Dose	Route (PO, SC, IM, ID, IN, MP)	Site (RA, LA, RT, LT)	Vaccine		Vaccine Information Statement		Vaccine Admin Initials
						lot #	mfr.	Date on VIS	Date Given	
Hepatitis B (e.g., HepB, HepB-CpG, HepB-Hib, DTaP-HepB-IPV, HepA-HepB)				IM						
				IM						
				IM						
				IM						
Diphtheria, Tetanus, Pertussis (e.g., DTP, DTaP, DT, DTaP-Hib, DTaP-IPV/Hib, DTaP-HepB-IPV, DTaP-IPV, Td, Tdap)				IM						
				IM						
				IM						
				IM						
				IM						
				IM						
Haemophilus influenzae type b (e.g., Hib, HepB-Hib, DTaP-Hib, DTaP-IPV/Hib, Hib-MenCY)				IM						
				IM						
				IM						
				IM						
Polio (e.g., IPV, DTaP-IPV/Hib, DTaP-HepB-IPV, DTaP-IPV)				IM•SC						
				IM•SC						

<http://www.mass.gov/eohhs/docs/dph/cdc/immunization/record-vaccine-admin-clinic.pdf>

MIIS Reporting Requirements

Legislation passed in June 2010, charging MDPH to establish an immunization registry (M.G.L. c. 111, s.24M)

- **Mandatory reporting of all immunizations administered in MA**

Regulations were promulgated January 2015

- outline information on system access, confidentiality, and requirements for data elements to be reported
- describe a provider's duty to inform patients, and a patient's right to object to data sharing across providers

See MIIS table or www.contactmiis.info for more information

MIIS Progress Report

Data over time...



2011

- Total Sites: 9
- Total Patients: 3,902
- Total Shots: 69,505

2013

- Total Sites: 341
- Total Patients: 1,539,629
- Total Shots: 7,303,293

2015

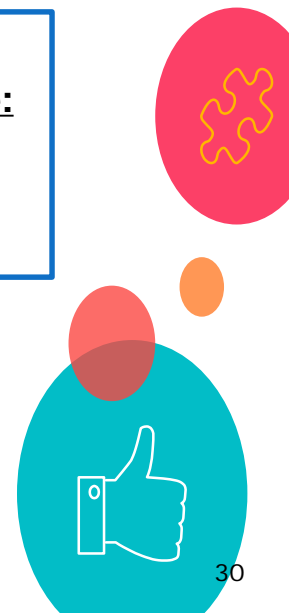
- Total Sites: 1,121
- Total Patients: 4,427,623
- Total Shots: 33,334,571

- 2017
- Total Sites: 2,104
- Total Patients: 6,000,063
- Total Shots: 42,093,576

2020

- Total Sites: 2,691
- Total Patients: 7,862,263
- Total Shots: 65,236,892

**Bi-Directional
Data Exchange:**
Sites: 647
Queries: 13,682,180



CDC Vaccine Safety Monitoring

- Vaccines are one of the most cost-effective public health interventions available
- Their efficacy in reducing disease incidence has led to an increased focus on adverse events
- Close monitoring of vaccine safety is necessary to maintain public confidence in vaccination programs
- This monitoring provides information critical for vaccine research, development and policy

CDC Post-licensure Vaccine Safety Monitoring Infrastructure

System	Collaboration	Description
Vaccine Adverse Event Reporting System (VAERS)	CDC and FDA	US frontline spontaneous reporting system to detect potential vaccine safety problems
Vaccine Safety Datalink (VSD)	CDC and healthcare plans	Large linked database system used for active surveillance and research
Clinical Immunization Safety Assessment (CISA) Project	CDC and medical research centers	Expert collaboration which conducts individual clinical vaccine safety assessments and clinical research

Vaccine Adverse Event Reporting System (VAERS)

- VAERS is a passive reporting system, meaning it relies on individuals to send in reports of their experiences. Anyone can submit a report to VAERS, including providers, parents and patients.
 - Not designed to determine if a vaccine caused a health problem, but is especially useful for detecting unusual or unexpected patterns of adverse event reporting that might indicate a possible safety problem with a vaccine
 - Receives about 30,000 reports annually
 - Jointly administered by CDC and FDA, authorized by National Childhood
 - Vaccine Injury Act of 1986
- VAERS data publicly available for search (including by state) at: <https://wonder.cdc.gov/vaers.html>

What to Report to VAERS

- Any clinically significant or medically important adverse event following immunization even if you are not certain the vaccine caused the event
- Some examples of adverse events to report
 - Local: redness, swelling, pain at injection site
 - Systemic: fever, myalgia, headache
 - Allergic: hives, pruritus, anaphylaxis
 - Vaccination errors (e.g., wrong route, wrong dose, wrong age)
- The National Childhood Vaccine Injury Act mandates healthcare providers also report specific adverse events that occur after vaccination
 - Events listed in the Table of Reportable Events
 - [https://vaers.hhs.gov/docs/VAERS Table of Reportable Events Following Vaccination.pdf](https://vaers.hhs.gov/docs/VAERS%20Table%20of%20Reportable%20Events%20Following%20Vaccination.pdf)

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

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

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

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

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

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

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

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

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

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

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

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

12. Chronic or long-standing health conditions: _____

INFORMATION ABOUT THE PERSON COMPLETING THIS FORM

13. Form completed by: (name) _____
 Relation to patient: ☐ Healthcare professional/staff ☐ Patient (yourself)
☐ Parent/guardian/caregiver ☐ Other: _____
 Street address: _____ Check if same as item 1
 City: _____ State: _____ ZIP code: _____
 Phone: () _____ Email: _____

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

INFORMATION ABOUT THE FACILITY WHERE VACCINE WAS GIVEN

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

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

WHICH VACCINES WERE GIVEN? WHAT HAPPENED TO THE PATIENT?

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

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

18. Describe the adverse event(s), treatment, and outcome(s), if any: (symptoms, signs, time course, etc.) _____

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

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

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

ADDITIONAL INFORMATION

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

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

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

24. Patient's race: ☐ American Indian or Alaska Native ☐ Asian ☐ Black or African American ☐ Native Hawaiian or Other Pacific Islander
☐ White ☐ Unknown ☐ Other: _____

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

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

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

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

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

FORM FOR VAERS 2.0 (02/20)

10-00000000

- 4/14/2020

Vaccine Injury Compensation Program (VICP)

- Established by National Childhood Vaccine Injury Act (1986)
- “No fault” program
- Covers all routinely recommended childhood vaccines
- Vaccine Injury Table
 - Lists conditions associated with each vaccine
 - <http://www.hrsa.gov/vaccinecompensation/vaccineinjurytable.pdf>

<http://www.cdc.gov/vaccines/pubs/pinkbook/safety.html>

Standards for Adult Immunization Practice

- Assess immunization status of all patients in every clinical encounter
 - Avoid missed opportunities
- Strongly recommend vaccines that patients need
 - Speak from personal experience
- Administer needed vaccines or refer to a vaccinating provider and confirm receipt
 - Utilize standing orders
 - Offer vaccine only visits
- Reminder recall
- Provide information in foreign languages
- Document vaccines received by patients, including entering immunization into immunization registry (MIIS)

Delivery of Adult Clinical Preventive Services, Including Immunizations, During the COVID-19 Pandemic

The COVID-19 pandemic is changing rapidly and continues to affect communities across the United States differently. Clinicians must maintain access to clinical services in environments that are safe for all. Some of the strategies used to slow the spread of disease in communities including postponing or cancelling non-urgent elective procedures and using telemedicine instead of face-to-face encounters for routine medical encounters.

Delivery of some clinical preventive services, such as immunizations, requires face to face encounters and in areas with community transmission of SARS-CoV-2, these should be postponed except when:

- An in-person visit must be scheduled for some other purpose and the clinical preventive service can be delivered during that visit with no additional risk; or
- An individual patient and their clinician believe that there is a compelling need to receive the service based on an assessment that the potential benefit outweighs the risk of exposure to the virus that causes COVID-19

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/preparedness-checklists.html>

Benefits of Standing Orders

- Overcome administrative barriers and save time
- Shown to be **effective** in both adults and children¹
 - For children, use of standing orders is associated with a median increase in vaccination coverage of 28%
 - Most effective evidence-based method
- **REDUCES MISSED OPPORTUNITIES**
- Consider implementing standing orders for vaccination, particularly for the adolescent immunization 'bundle'
- 'Presumptive' recommendation in action

IAC model standing orders available at:

<http://www.immunize.org/standing-orders/>

MDPH model standing orders available at:

<http://www.mass.gov/eohhs/gov/departments/dph/programs/id/immunization/model-standing-orders.html>

Create Culture of Immunization in Your Practice: It Takes a Team

- Patient's **confidence** is increased when they receive the same information from different people
- Inconsistent message from staff may confuse parents and create mistrust
- A culture of immunization starts at the front desk and extends into the waiting room, exam room and finally to the check-out desk
- Everyone plays a part:
 - Receptionists & other support staff
 - Nurses and nurse practitioners
 - Physicians and physician assistants
 - Office manager
 - Vaccine coordinator



RESOURCES

General Best Practice Guidelines for Immunization

Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP)

Kroger AT, Duchin J, Vázquez M

1. Introduction

The Centers for Disease Control and Prevention (CDC) recommends routine vaccination to prevent 17 vaccine-preventable diseases that occur in infants, children, adolescents, or adults. This report provides information for clinicians and other health care providers about concerns that commonly arise when vaccinating persons of various ages.

Minimum Interval Table

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/A/age-interval-table.pdf>

ACIP Best Practice Guidelines for Immunization

- Describes recommendations and guidelines on vaccination practice
- Updates on vaccination record policy, impact of ACA, characterization and protocol for anaphylaxis, definition of precaution; new information on simultaneous vaccination and febrile seizures
- Updated as needed online

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

Recommended and Minimum Ages and Intervals Between Doses of Routinely Recommended Vaccines ^{1,2,3,4}				
Vaccine and dose number	Recommended age for this dose	Minimum age for this dose	Recommended interval to next dose	Minimum interval to next dose
Diphtheria-tetanus-acellular pertussis (DTaP)-1 ⁵	2 months	6 weeks	8 weeks	4 weeks
DTaP-2	4 months	10 weeks	8 weeks	4 weeks
DTaP-3	6 months	14 weeks	6-12 months ⁶	6 months ⁶
DTaP-4	15-18 months	15 months ⁶	3 years	6 months
DTaP-5 ⁷	4-6 years	4 years	—	—
<i>Haemophilus influenzae</i> type b (Hib)-1 ⁸	2 months	6 weeks	8 weeks	4 weeks
Hib-2	4 months	10 weeks	8 weeks	4 weeks
Hib-3 ⁹	6 months	14 weeks	6-9 months	8 weeks
Hib-4	12-15 months	12 months	—	—
Hepatitis A (HepA)-1 ⁵	12-23 months	12 months	6-18 months	6 months
HepA-2	≥18 months	18 months	—	—
Hepatitis B (HepB)-1 ¹⁰	Birth	Birth	4 weeks-4 months	4 weeks
HepB-2	1-2 months	4 weeks	8 weeks-17 months	8 weeks
HepB-3 ¹¹	6-18 months	24 weeks	—	—

Immunization Action Coalition

IAC EXPRESS

SUBSCRIBE to the most comprehensive immunization news and information service available – it's free!

Stay up to date with **IAC Express** – delivered weekly to your email inbox.

SUBSCRIBE

Ask the Experts!

CDC experts answer more than 1,000 questions from healthcare professionals about vaccines and their use



>> Read Ask the Experts!

www.immunize.org

Handouts for Patients & Staff

Materials for Healthcare Professionals and Their Patients



IAC Publications

- ➔ IAC Express - Email news
- ➔ Needle Tips Archive
- ➔ Vaccinate Adults Archive



Favorites

WEB SECTIONS

PRINTABLES

1. Handouts (educational materials) for Patients and Staff
2. Vaccine Information Statements
3. Ask the Experts
4. IAC Express
5. Subscribe to IAC Express



TOPIC INDEX

VACCINE INDEX

LANGUAGE INDEX

VIEW ALL MATERIALS

- ➔ Administering Vaccines
- ➔ Adolescent Vaccination
- ➔ Adult Vaccination
- ➔ Contraindications / Precautions
- ➔ Documenting Vaccination
- ➔ Healthcare Personnel
- ➔ Managing Vaccine Reactions
- ➔ Parent Handouts
- ➔ Pregnancy and Vaccines
- ➔ Q&As: Diseases and Vaccines
- ➔ Q&As: Diseases and Vaccines, Easy-to-Read
- ➔ Schedules for Patients
- ➔ Screening Checklists
- ➔ Standing Orders Templates
- ➔ Storage and Handling
- ➔ Strategies and Policies
- ➔ Temperature Logs
- ➔ Vaccine Hesitancy
- ➔ Vaccine Recommendations
- ➔ Top Handouts
- ➔ What's New: Handouts
- ➔ Promotional Materials
- ➔ View All Materials

Topic Index

Vaccine Index

Language Index

View All Materials

Immunization Action Coalition

Vaccinating Adults:

A Step-by-Step Guide



<http://www.immunize.org/guide/>

MA Adult Immunization Coalition(MAIC)

- MAIC is a collaborative partnership dedicated to increasing adult immunization through education, networking, and sharing innovative and best practices.
- There are currently over 300 members representing local and state public health organizations, community health centers, health insurance plans, pharmacies, physicians, vaccine manufacturers, long-term care and senior service organizations, consumer advocacy groups, hospitals, home health, and college health services.
- Quarterly meetings in person or via webinar



Next Meeting!

Thursday, 6/4/2020
from 6:30 – 8:30pm
@ Massachusetts
Medical Society

Contact Amy Sgueglia,
MSN, RN, coalition chair
at MAIC@jsi.com or visit
www.maic.jsi.com if you
are interested in
attending or would like
to sign up for coalition
emails.

CDC's Toolkit for Prenatal Providers

Toolkit for Prenatal Care Providers

Increasing the Use of Maternal Vaccines by Ob-gyns, Nurse-Midwives, and Other Healthcare Professionals



This comprehensive toolkit is intended to help prenatal care providers increase the rates of maternal immunization. Ob-gyns, nurse-midwives, and other healthcare professionals who serve pregnant women can all use this toolkit. The resources here include recommendations from CDC and other relevant details about vaccinating pregnant women.

We want your feedback for this toolkit! What do you find to be most helpful? Is something missing? Your input is important! Please email feedback to adultvaccines@cdc.gov.



Why Maternal Vaccines Are Important

- [Tdap \(Pertussis\) Vaccine](#)
- [Rationale: Why Vaccinate Pregnant Women? \(Tdap\)](#)
- [Influenza \(Flu\) Vaccine and Pregnancy](#)
- [ACIP Recommendations and Pregnancy \(Flu\)](#)

Implementation Resources

- [Standards for Adult Immunization Practice](#)
- [Strategies for Increasing Adult Vaccination Rates](#)
- [Getting Reimbursed for Tdap Vaccination](#)
- [Resources for Provider Education](#)

Maternal Vaccination Information

- [Guidelines for Vaccinating Pregnant Women](#)
- [Recommended Immunization Schedules for Adults](#)
- [Maternal Vaccination Coverage](#)
- [Resources for Patient Education](#)



Vaccinating Pregnant Women
Protects Moms and Babies

<https://www.cdc.gov/vaccines/pregnancy/hcp-toolkit/index.html>

ACOG Immunization Resources

Immunization for Women

Immunization against influenza and other vaccine-preventable diseases is an essential component of women's health care.

Programs

American Indian and Alaska
Native Women's Health

Breastfeeding

Fetal Alcohol Spectrum
Disorders Prevention

Global Women's Health

Immunization for Women

About the Program

Activities & Initiatives

Provider Tools

Implementing Progress in
Abortion Care and Training
(IMPACT)

Levels of Maternal Care

Long-Acting Reversible
Contraception (LARC)

Optimizing Care for Pregnancy
Loss



Report

Strategies for Effectively Integrating Immunizations Into Routine Obstetric- Gynecologic Care

These strategies guide obstetrician-gynecologists
in improving immunization processes, and
ultimately increasing immunization rates within the
practice setting.

Read More

ADVERTISEMENT




NOW AVAILABLE:
Digital Pamphlets for Patient Education!



SUBSCRIBE NOW

<https://www.acog.org/programs/immunization-for-women>

ACOG Summary Tip Sheet



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACOG
FOUNDATION

Strategies for Effectively Integrating Immunizations Into Routine Obstetric-Gynecologic Care

Overview

The strategies outlined in this resource are based on findings from an American College of Obstetricians and Gynecologists adult immunization project funded by the Centers for Disease Control and Prevention. During this project, recommendations from the National Vaccine Advisory Committee Standards for Adult Immunization Practice were implemented among a diverse population of obstetric-gynecologic providers. Through this process, four overarching strategies were shown to improve immunization processes and ultimately increase immunization rates among obstetrician-gynecologists (ob-gyn) that put them into practice.

Immunizing pregnant and nonpregnant women against vaccine-preventable diseases is an essential component of women's health care. These suggested strategies are intended to help ob-gyns optimize their immunization programs and integrate immunizations into their routine patient care.

1. Administer routinely discussed and recommended vaccines, which at a minimum include influenza; tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap); and human papillomavirus (HPV).
2. Create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.

Activities and considerations to successfully implement this strategy include the following:

- ▶ Train staff on how to deliver strong immunization recommendations to every patient, with statements that include, at a minimum, the recommendation, a time frame for getting the vaccine, and a benefit to the patient.
- ▶ For practices that currently offer immunizations only to obstetric patients, pilot-test expanding a routine immunization, such as influenza, to gynecologic patients.
- ▶ Similarly, when adding immunizations to a practice or unit that previously did not administer onsite, start with one vaccine and pilot-test the process for a specified time frame.
- ▶ You may wish to research vaccine manufacturers for special pricing offers to ensure your practice obtains the best price per vaccine. Consult your legal counsel regarding discounts, as certain restrictions may apply.

Activities and considerations to successfully implement this strategy include the following:

- ▶ Regularly offer education to clinicians and staff on the importance of immunizations through routine meetings; circulation of educational materials; and access to opportunities, such as webinars and conferences.
- ▶ Develop scripts for staff to follow when promoting immunizations to patients to ensure strong and consistent recommendations.
- ▶ Encourage front desk staff to promote immunizations to patients as appropriate, such as letting each patient know at check-in that she is due for a vaccine.
- ▶ Display patient education materials on immunizations throughout the practice in locations where clinical staff and patients can easily access, such as intake areas and examination rooms.
- ▶ Based on your practice structure, delegate immunization program management duties (eg, ordering and stocking of new vaccine, monitoring vaccine storage) to an Immunization Champion team or individual. An Immunization Champion team should include at least one medical assistant and/or nurse, one physician, and the manager of the practice or clinic.
- ▶ Recognize your Immunization Champions with a name badge, shirt pin, or desk placard that acknowledges their special role and the importance of their work.

- *Strategies for Effectively Integrating Immunizations into Routine Obstetric-Gynecologic Care* **tip sheet**

- Highlights the strategies, as well as key activities and considerations for implementation of each

Strategies for Effectively Integrating Immunizations into Routine Obstetric-Gynecologic Care tip sheet

<https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/reports/strategies-for-integrating-immunizations.pdf>

Clinical Resources for Shoulder Injury Related to Vaccine Administration

CDC's Know the Site, Get it Right!

<https://www.cdc.gov/vaccines/hcp/infographics/you-call-the-shots-flu.html>

YOU CALL THE SHOTS

Shoulder injuries related to vaccine administration
Improper vaccine administration could result in shoulder injuries such as shoulder bursitis and tendinitis.

Make sure vaccination is safe.

KNOW THE SITE. GET IT RIGHT!

When administering vaccine by an intramuscular (IM) injection to an adult:

Use the correct syringe and needle

- » Vaccine may be administered using either a 1-mL or 3-mL syringe
- » Use a 22 to 25 gauge needle
- » Use the correct needle size based on your patient's size

Injection site: Deltoid muscle of upper arm

1 in (25 mm) 1.5 in (38 mm) OR 1 in (25 mm) 1.5 in (38 mm)

Men and women, less than 60 kg* (130 lbs) Men and women, 60-70 kg (130-152 lbs) Men, 79-118 kg (152-260 lbs) Women, 79-90 kg (152-200 lbs) Men, greater than 118 kg (>260 lbs) Women, greater than 90 kg (>200 lbs)

*Some experts recommend a 5/8-inch needle for men and women who weigh less than 60 kg (130 lbs).

Identify the injection site

- » Locate the deltoid muscle of the upper arm
- » Use anatomical landmarks to determine the injection site
- » In adults, the midpoint of the deltoid is about 2 inches (or 2 to 3 fingers' breadth) below the acromion process (bony prominence) and above the armpit in the middle of the upper arm

Acromion Process Scapula Site Deltoid Muscle Humerus Axillary Fold/Armpit

Administer the vaccine correctly

- » Inject the vaccine into the middle and thickest part of the deltoid muscle
- » Insert the needle at a 90° angle and inject all of the vaccine into the muscle tissue

90° angle Dermis Fatty Tissue (SUBCUTANEOUS) Muscle Tissue

Always follow safe injection practices

- » Maintain aseptic technique
- » Perform hand hygiene before preparing and administering vaccines
- » Use a new needle and new syringe for each injection
- » If using a single-dose vial (SDV) discard after use

A SDV should be used for one patient only!

IM injection best practices

- » Administering the injection too high on the upper arm may cause shoulder injury
- » If administering additional vaccines into the same arm, separate the injection sites

Report any clinically significant adverse event after vaccination to the Vaccine Adverse Event Reporting System (VAERS) at vaers.hhs.gov/

For additional information on proper vaccine administration,

CDC Resources for Staff Education

- Competency-based education for staff is critical
- Multiple education products available free through the CDC website:
 - Immunization courses
 - “You Call the Shots” self-study modules
 - Netconferences
- Continuing education is available



You Call The Shots

Series of modules that explain the latest recommendations for vaccine use that include self-test practice questions



Current Issues in Immunization NetConference (CIINC)

Live, 1-hour presentations via conference call including question and answer session



Immunization Courses

Webcasts, and self-study education and training programs for healthcare personnel



Patient Education

Educational materials that complement personal education and advice for patients



CE Credit for Immunization Courses

A guide and video show how to obtain continuing education credit or print a certificate of attendance



Quality Improvement Projects

Resources for providers seeking quality improvement projects that may be required for maintenance of certification



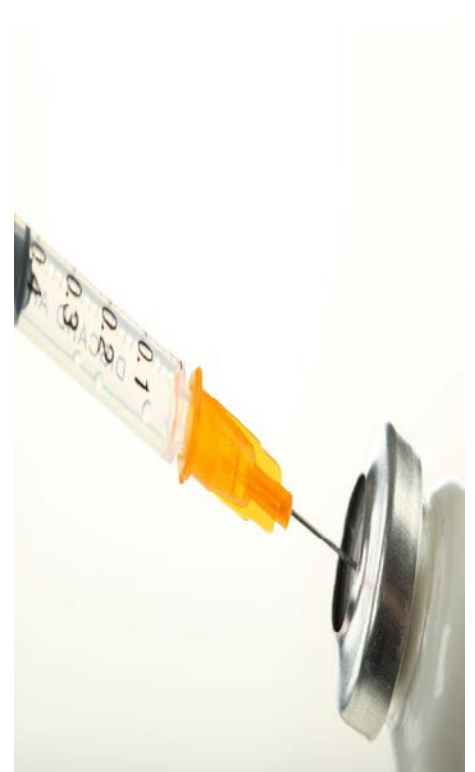
Pink Book Webinar Series

1-hour webinars that explore the chapters of the 'Epidemiology and Prevention of Vaccine-Preventable Diseases' book

<http://www.cdc.gov/vaccines/ed/index.html>

Vaccine Administration e-Learn

- The e-Learn is a free, interactive, online educational program that serves as a useful introductory course or a great refresher on vaccine administration
- Continuing education available for nurses, physicians, pharmacists, and other health care personnel
- It is available at:
<https://www2.cdc.gov/vaccines/ed/vaxadmin/va/ce.asp>



Vaccine Administration

REVIEW IMMUNIZATION HISTORY

Reviewing and assessing a patient's immunization history should be done at every health care visit to help determine which vaccines may be needed.

PREPARE THE VACCINE(S)

Proper preparation is critical for maintaining the integrity of the vaccine during transfer from the vial to the syringe.

ASSESS FOR NEEDED IMMUNIZATIONS

Use the current Advisory Committee on Immunization Practices (ACIP) immunization schedule to determine what recommended vaccines are needed based on the patient's immunization history.

ADMINISTER THE VACCINE(S)

Each vaccine has a recommended administration route and site, which are based on clinical trials, practical experience, and theoretical considerations.

SCREEN FOR CONTRAINDICATIONS AND PRECAUTIONS

Screening for contraindications and precautions can prevent adverse events following vaccination. All patients should be screened for contraindications and precautions prior to administering any vaccine, even if the patient has previously received that vaccine.

DOCUMENT THE VACCINATION(S)

Health care providers are required by law to record certain information in a patient's medical record.

EDUCATE THE PATIENT

Health care professionals should be prepared to provide comprehensive vaccine information.

RESOURCE LIBRARY

Access web-based trainings, videos, checklists, and references related to vaccine administration.

<https://www.cdc.gov/vaccines/hcp/admin/admin-protocols.html>

MDPH Regional Immunization Nurses

- **Laurie Courtney**--Metro Boston & Central Region 617-983-6811
laurie.courtney@state.ma.us
- **Denise Dillon** – Northeast 978-851-7261
denise.dillon@state.ma.us
- **Linda Jacobs** – Southeast 508-441-3980
linda.jacobs@state.ma.us
- **Theodora Wohler** – Metro West & Western Region 617-983-6837
theodora.wohler@state.ma.us
- **Katie Reilly**, Nurse Manager 617-983-6833_(T/Th) 508-441-3982_(M/W/F)
catherine.reilly@state.ma.us

MDPH Immunization Division

Contact Information

Immunization Division Main Number

For questions about immunization recommendations, disease reporting, etc.

Phone: 617-983-6800

Fax: 617-983-6840

Website: www.mass.gov/dph/imm

MIIS Help Desk

Phone: 617-983-4335

Fax: 617-983-4301

Email: miishelpdesk@state.ma.us

Website: www.contactmiis.info | www.mass.gov/dph/miis

MDPH Vaccine Unit

Phone: 617-983-6828

Fax: 617-983-6924

Email: dph-vaccine-management@state.ma.us

Website: www.mass.gov/dph/imm

THANK YOU!

