

Vaccination 101



Mary Conant-Cantor BSN, RN
Nurse Manager
Massachusetts Dept Of Public Health
Immunization Program

Presenter Disclosure Information

Mary Conant-Cantor BSN, RN

Consultant	No relevant conflicts of interest to declare or relevant conflict
Grant Research/Support	No relevant conflicts of interest to declare or relevant conflict
Speaker's Bureau	No relevant conflicts of interest to declare or relevant conflict
Major Stockholder	No relevant conflicts of interest to declare or relevant conflict
Other Financial or Material Interest	No relevant conflicts of interest to declare or relevant conflict
Off Label Use of Vaccines	Will be discussed, but in accordance with current ACIP recommendations

Outline

- ❑ Principles of vaccination
- ❑ Types of vaccines
- ❑ Tips on using the 2014 Adult Schedules
- ❑ Screening prior to vaccination
- ❑ Contraindications and Precautions to vaccination
- ❑ Vaccine Information Statements (VIS)
- ❑ Vaccine administration documentation requirements
- ❑ Vaccine adverse events and medical error reporting

Principles of Vaccination

Active Immunity

- Protection produced by the person's own immune system
- Occurs due to natural exposure to antigen or by vaccination
- Usually permanent

Passive Immunity

- Protection transferred from another person or animal
- Temporary protection that wanes with time

Principles of Vaccination

Antigen

- A live or inactivated substance (e.g., protein, polysaccharide) capable of producing an immune response

Antibody

- Protein molecules (immuno-globulin) produced by B lymphocytes to help eliminate an antigen

Classification of Vaccines

- Live attenuated

- viral
- bacterial

- Inactivated



2014 Adult Immunization Schedule

MMWR 2014;63:110.

Annals of Internal Medicine 2014;160:190

MDPH Adult Immunization Conference
2014




Recommended Adult Immunization Schedule—United States - 2014


Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.


Figure 1. Recommended adult immunization schedule, by vaccine and age group¹

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza ^{2,*}		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) ^{3,*}		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					
Varicella ^{4,*}		2 doses					
Human papillomavirus (HPV) Female ^{5,*}		3 doses					
Human papillomavirus (HPV) Male ^{5,*}		3 doses					
Zoster ⁶						1 dose	
Measles, mumps, rubella (MMR) ^{7,*}		1 or 2 doses					
Pneumococcal 13-valent conjugate (PCV13) ^{8,*}		1 dose					
Pneumococcal polysaccharide (PPSV23) ^{9,10}		1 or 2 doses					1 dose
Meningococcal ^{11,*}		1 or more doses					
Hepatitis A ^{12,*}		2 doses					
Hepatitis B ^{13,*}		3 doses					
<i>Haemophilus influenzae</i> type b (Hib) ^{14,*}		1 or 3 doses					

*Covered by the Vaccine Injury Compensation Program

 For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

 Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)

 No recommendation

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at www.vaers.hhs.gov or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at www.cdc.gov/vaccines or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 8:00 a.m. - 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).

Figure 2. Vaccines that might be indicated for adults based on medical and other indications¹

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ^{4,6,7,8,15}	HIV infection CD4+ T lymphocyte count ^{4,6,7,8,15}	Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (Including elective splenectomy and persistent complement component deficiencies) ^{8,14}	Chronic liver disease	Diabetes	Healthcare personnel
Influenza ^{2,*}			1 dose IIV annually		1 dose IIV or LAIV annually	1 dose IIV annually					1 dose IIV or LAIV annually
Tetanus, diphtheria, pertussis (Td/Tdap) ^{3,*}	1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs									
Varicella ^{4,*}		Contraindicated	2 doses								
Human papillomavirus (HPV) Female ^{5,*}		3 doses through age 26 yrs			3 doses through age 26 yrs						
Human papillomavirus (HPV) Male ^{5,*}		3 doses through age 26 yrs				3 doses through age 21 yrs					
Zoster ⁶		Contraindicated			1 dose						
Measles, mumps, rubella (MMR) ^{7,*}		Contraindicated	1 or 2 doses								
Pneumococcal 13-valent conjugate (PCV13) ^{8,*}						1 dose					
Pneumococcal polysaccharide (PPSV23) ^{9,10}						1 or 2 doses					
Meningococcal ^{11,*}		1 or more doses									
Hepatitis A ^{12,*}						2 doses					
Hepatitis B ^{13,*}				3 doses							
Haemophilus influenzae type b (Hib) ^{14,*}		post-HSCT recipients only	1 or 3 doses								

*Covered by the Vaccine Injury Compensation Program

- For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster
- Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)
- No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages 19 years and older, as of February 1, 2014. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/pubs/acip-list.htm). Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.



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

Contraindications Table

Summary Table
published
annually by CDC
with US adult
schedule in
MMWR.
(CDC. MMWR 2014;
Vol.63(05); 110-
112)

TABLE. Contraindications and precautions to commonly used vaccines in adults: United States, 2014 ^{1†}		
Vaccine	Contraindications	Precautions
Influenza, inactivated vaccine (IIV) ²	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any IIV or LAIV or to a vaccine component, including egg protein.	Moderate or severe acute illness with or without fever. History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination. Persons who experience only hives with exposure to eggs may receive RIV (if age 18-49 years) or, with additional safety precautions, IIV. ²
Influenza, recombinant (RIV)	Severe allergic reaction (e.g., anaphylaxis) after previous dose of RIV or to a vaccine component. RIV does not contain any egg protein. ²	Moderate or severe acute illness with or without fever. History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination.
Influenza, live attenuated (LAIV) ^{2,3}	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any IIV or LAIV or to a vaccine component, including egg protein. Conditions for which the Advisory Committee on Immunization Practices (ACIP) recommends against use, but which are not contraindications in vaccine package insert: immune suppression, certain chronic medical conditions (such as asthma, diabetes, heart or kidney disease), and pregnancy. ^{2,3}	Moderate or severe acute illness with or without fever. History of Guillain-Barré Syndrome within 6 weeks of previous influenza vaccination. Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) within 48 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.
Tetanus, diphtheria, pertussis (Tdap); tetanus, diphtheria (Td)	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 Tdap or diphtheria and tetanus toxoids and pertussis (DTaP) or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine.	Moderate or severe acute illness with or without fever. Guillain-Barré Syndrome within 6 weeks after a previous dose of tetanus toxoid-containing vaccine. History of Anthus-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 pertussis-containing vaccines: progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.
Varicella ⁴	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy ⁵ or patients with human immunodeficiency virus (HIV) infection who are severely immunocompromised). Pregnancy.	Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product). ⁶ Moderate or severe acute illness with or without fever. Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination.
Human papillomavirus (HPV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever. Pregnancy.
Zoster ⁴	Severe allergic reaction (e.g., anaphylaxis) to a vaccine component. Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, or long-term immunosuppressive therapy ⁵ or patients with HIV infection who are severely immunocompromised). Pregnancy.	Moderate or severe acute illness with or without fever. Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination.
Measles, mumps, rubella (MMR) ²	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy ⁵ or patients with HIV infection who are severely immunocompromised). Pregnancy.	Moderate or severe acute illness with or without fever. Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product). ⁶ History of thrombocytopenia or thrombocytopenic purpura. Need for tuberculin skin testing. ⁸
Pneumococcal conjugate (PCV13)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including to any vaccine containing diphtheria toxoid.	Moderate or severe acute illness with or without fever.
Pneumococcal polysaccharide (PPSV23)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Meningococcal, conjugate, (MenACWY); meningococcal, polysaccharide (MPSV4)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Hepatitis A (HepA)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Hepatitis B (HepB)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Haemophilus influenzae Type b (Hib)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.

1. Vaccine package inserts and the full ACIP recommendations for these vaccines should be consulted for additional information on vaccine-related contraindications and precautions and for more information on vaccine excipients. Events or conditions listed as precautions should be reviewed carefully. Benefits of and risks for administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered. A contraindication is a condition in a recipient that increases the chance of a serious adverse reaction. Therefore, a vaccine should not be administered when a contraindication is present.
2. For more information on use of influenza vaccines among persons with egg allergies and a complete list of conditions that CDC considers to be reasons to avoid receiving LAIV, see CDC. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2013–14. MMWR 2013;62(RR07):1–43. Available at <http://www.cdc.gov/mmwr/preview/mmwr62rr07a1.htm>.
3. LAIV, MMR, varicella, or zoster vaccines can be administered on the same day. If not administered on the same day, live vaccines should be separated by at least 28 days.
4. Immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg of prednisone or the equivalent. Vaccination should be deferred for at least 1 month after discontinuation of such therapy. Providers should consult ACIP recommendations for complete information on the use of specific live vaccines among persons on immune-suppressing medications or with immune suppression because of other reasons.
5. Vaccines should be deferred for the appropriate interval if replacement immune globulin products are being administered. See CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2011;60(No. RR-2). Available at www.cdc.gov/vaccines/hcp/acip-recs/index.html.
6. Measles vaccination might suppress tuberculin reactivity temporarily. Measles-containing vaccine may be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for at least 4 weeks after the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.

* Adapted from CDC. Table 6. Contraindications and precautions to commonly used vaccines. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices. MMWR 2011;60(No. RR-2):40–41 and from Adkinson W, Wolfe S, Henning J, eds. Appendix A. Epidemiology and prevention of vaccine-preventable diseases, 12th ed. Washington, DC: Public Health Foundation, 2011. Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.
† Regarding latex allergy, consult the package insert for any vaccine administered.

Your Opinion Counts!

A health care provider recommendation and offer is the single most important determinant of whether or not someone gets vaccinated.



Try using a “presumptive” rather than “participatory” approach

2008 NFID Survey:

- 87% indicated they would be likely to get a vaccine if the provider recommended it
- 55% indicated they would get it *only* if their provider recommended it

Your Strong routine recommendation is critical!



NFID. *National Survey on adult vaccination reports low consumer awareness of vaccines and risks of vaccine-preventable diseases.* Bethesda, MD: 9 National Foundation for Infectious Diseases: 2008

Screening Questions

- ❑ Are you sick today?
- ❑ Do you have an allergy to any medications, food, a vaccine component, or latex?
- ❑ Have you ever had a serious reaction after receiving a vaccination?
- ❑ Do you have a long term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g. diabetes), anemia, or other blood disorder?
- ❑ Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?

Screening Questions, con't

- ❑ In the past 3 months, have you taken any medications that weaken your immune system, such as cortisone, prednisone, other steroids, or anticancer drugs, or had radiation treatments?
- ❑ Have you had a seizure or a brain or other nervous system problem?
- ❑ During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?
- ❑ For women: Are you pregnant or is there a chance you could become pregnant during the next month?
- ❑ Have you received any vaccinations in the past 4 weeks?

Screening Forms

- ❑ Available from:
 - Immunize.org
- ❑ Screening Forms
 - Adult Immunizations
 - Child and Teen Immunizations
 - TIV and LAIV Seasonal Influenza

Screening Questionnaire for Adult Immunization

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 currently smoking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you have allergies to medications, foods, 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 such as heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you have cancer, leukemia, AIDS, or any other immune system problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you take corticosteroids, prednisone, other steroids, or anti-cancer drugs, or have you had radiation treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you had a transplant of blood or other tissues, organ problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. During the past year, have you received a transfusion of blood or blood products, or been given immune globulin or any other blood?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. For women: Are you pregnant or is there a chance you could become pregnant during the next month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you received any vaccinations in the past 14 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form completed by: _____ Date: _____
Form reviewed by: _____ Date: _____

Did you bring your immunization record card with you? yes ☐ no ☐

It is important for you to have a personal record of your vaccinations. If you don't have a personal record, ask your healthcare provider to give you one. Keep this record in a safe place and bring it with you every time you need medical care. Please note your healthcare provider needs all your vaccination records.

Immunization Adult Questionnaire - 01/15/2014. For the Public. For use by healthcare providers. www.immunize.org

www.immunize.org/handouts/screening-vaccines.asp

Contraindication and Precautions

❑ Contraindication

- A condition in a recipient that greatly increases the chance of a serious adverse reaction

❑ Precaution

- A condition in a recipient that might increase the chance or severity of an adverse reaction, or
- Might compromise the ability of the vaccine to produce immunity



Download Full Guide:

[High Resolution](#) (60 MB) | [Low Resolution](#) (21.2 MB)
(Updated: May 4)

SECTION 1 Practice Improvement

[Download Section 1 - Practice Improvement](#) (51.9 MB)

Topics covered:

- Immunization and the Chronic Care Model
- PDSA and Rapid Cycles of Change
- Measuring Change in Your Practice
- Incorporating Run Charts Into Daily Practice

SECTION 2 Practical Advice

[Download Section 2 - Practical Advice](#) (61.5 MB)

Welcome to the ACP Immunization Portal

ACP Guide to Adult Immunization

Produced by faculty of ACP's Quality Improvement Programs and members of the ACP Adult Immunization Advisory Board, the ACP Guide to Adult Immunization will help you develop systematic processes for incorporating immunization in your day-to-day practice.

The Guide is divided into four sections:

- Section 1: Quality Improvement Principles in Immunization
- Section 2: Resources for Practical Application
- Section 3: Recommended Adult Vaccines and Their Indications
- Section 4: Special Populations (Pregnant Women, Immunocompromised, etc.)

Our intention is that this Guide will be read by and shared among the entire office team. You may find that Sections 1 and 2 are more beneficial to administrators and office staff, while physicians, physician assistants, nurse practitioners, and nurses may want to concentrate on Sections 3 and 4. Attending physicians and their residents will find residency clinic-specific information in Section 2.

Sections

1. Practice Improvement
2. Practical Advice
3. Vaccines and Their Indications
4. Special Populations
 - Women who are Pregnant or Breastfeeding
 - Immunocompromised Persons
 - Patients with Anatomical or Functional Asplenia
 - Childhood Catch-up
 - Health Care Workers (HCWs)

American College of
Physicians
*Guide to Adult
Immunizations*

<http://immunization.acponline.org/>

Immunization Action Coalition

www.immunize.org

The screenshot displays the Immunization Action Coalition website. At the top, there is a navigation bar with links: Home, About IAC, Contact, A-Z Index, Donate, Shop, and SUBSCRIBE. Below this is a header section with 'Immunization Action Coalition' and a Google Site Search bar. A secondary navigation bar includes links for Handouts for Patients & Staff, Clinic Resources, Vaccine Information Statements, Diseases & Vaccines, Talking about Vaccines, and Topics.

The main content area features a 'Welcome' section, a 'Needle Tips & More' link, 'What's New at IAC', 'Immunization News', and 'Featured Resources'. A 'Shop IAC' section promotes training videos, record cards, and more, accompanied by an image of a shopping cart. A 'New 2012 Laminated Schedules' section highlights 'Child & Adolescent' and 'Adult' schedules, with a 'Shop IAC' link. On the right, there are links for 'Get Email Updates', 'Make a Donation', 'Shop IAC', and 'Video of the Week'.

Below the main content, a 'Most Popular' section lists 15 items, with a red arrow pointing to 'Needle Tips' in the 'IAC Publications' section. The 'IAC Publications' section includes links for 'Needle Tips NEW', 'Vaccinate Adults NEW', and 'IAC Express - Email news', with an image of a 'NEEDLE TIPS' and 'VACCINATE ADULTS' brochure circled in red. The 'Ask the Experts' section features a link for 'Questions & Answers' and an image of hands raised. The 'Unprotected People Reports' section includes a link for 'Read Reports' and an image of lit candles.

On the right side, a 'Series' section describes a video series on risk communication theory and the CASE model, with a link to 'Visit the VOTW archive'. Below this, an 'OFFICIAL INFORMATION' section lists 'AAP Policy Statements', 'ACIP Recommendations', 'FDA Product Approval', and 'State Information', with a '>> view all' link. At the bottom, a 'RESOURCES' section is partially visible.

Most Popular

1. Vaccine Information Statements
2. Ask the Experts
3. Handouts for Patients and Staff
4. Photos
5. CDC Schedules
6. IAC Express
7. Shop IAC
8. Clinic Resources
9. Unprotected People Reports
10. Needle Tips
11. Journal Articles
12. Directory of Resources
13. Talking About Vaccines
14. State Laws
15. ACIP Recommendations

WEB SECTIONS

DOWNLOADS

IAC Publications

- ➔ Needle Tips **NEW**
- ➔ Vaccinate Adults **NEW**
- ➔ IAC Express - Email news

Ask the Experts

Experts from CDC answer challenging and timely questions about vaccines and their administration

- ➔ Questions & Answers

Unprotected People Reports

Real-life accounts of people who have suffered or died from vaccine-preventable diseases: compelling personal testimonies, case reports, and articles

- ➔ Read Reports

Series: Understanding risk communication theory and having tools such as the CASE model encourages fruitful discussion with families about their vaccine safety concerns. The series of videos introduce risk communication and the CASE model, role play two examples of the CASE model in action, and provide feedback on each of the scenarios. These can be viewed individually or as part of a larger group for discussion.

[Visit the VOTW archive](#)

OFFICIAL INFORMATION

- AAP Policy Statements
- ACIP Recommendations
- FDA Product Approval
- State Information

[>> view all](#)

RESOURCES

Vaccination of Pregnant Women

- ❑ Live vaccines should not be administered to women known to be pregnant
- ❑ In general inactivated vaccines may be administered to pregnant women for whom they are indicated
- ❑ HPV vaccine should be deferred during pregnancy



ACOG's Immunization Program

<http://www.immunizationforwomen.org/>



- Tool Kits
 - General Immunization
 - Tdap
 - Flu
- Policy Statements
- Q and As
- Scripts for providers
- Links

New



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS
410 20th Street, N.W., Washington, DC 20037-4302
Mailing Address: P.O. Box 1020, Washington, DC 20044-1020

Tdap Immunization
Fall 2013

Immunization Resources for
Obstetrician–Gynecologists
A Comprehensive Tool Kit

CDC Guidelines for Vaccinating Pregnant Women

Immunization & Pregnancy

*Vaccines help keep a pregnant woman
and her growing family healthy.*



- Guidelines for vaccination
- Travel and other vaccines
- Breast feeding and vaccination
- Prenatal screening

www.cdc.gov/vaccines/pubs/preg-guide.htm#prenatal

Immunizations and Pregnancy



Vaccine	Before pregnancy	During pregnancy	After pregnancy	Type of Vaccine
Hepatitis A	Yes, if indicated	Yes, if indicated	Yes, if indicated	Inactivated
Hepatitis B	Yes, if indicated	Yes, if indicated	Yes, if indicated	Inactivated
Human Papillomavirus (HPV)	Yes, if indicated, through 26 years of age	No, under study	Yes, if indicated, through 26 years of age	Inactivated
Influenza IIV	Yes	Yes	Yes	Inactivated
Influenza LAIV	Yes, if less than 50 years of age and healthy; avoid conception for 4 weeks	No	Yes, if less than 50 years of age and healthy; avoid conception for 4 weeks	Live
MMR	Yes, if indicated, avoid conception for 4 weeks	No	Yes, if indicated, give immediately postpartum if susceptible to rubella	Live
Meningococcal: • polysaccharide • conjugate	If indicated	If indicated	If indicated	Inactivated Inactivated
Pneumococcal Polysaccharide	If indicated	If indicated	If indicated	Inactivated
Tdap	Yes, if indicated	Yes, vaccinate during each pregnancy ideally between 27 and 36 weeks of gestation	Yes, immediately postpartum, if not received previously	Toxoid/ inactivated
Tetanus/Diphtheria Td	Yes, if indicated	Yes, if indicated, Tdap preferred	Yes, if indicated	Toxoid
Varicella	Yes, if indicated, avoid conception for 4 weeks	No	Yes, if indicated, give immediately postpartum if susceptible	Live

General Recommendations on Immunization

Recommendations of the Advisory Committee
on Immunization Practices (ACIP)



Continuing Education Examination available at <http://www.cdc.gov/mmwr/cme/conted.html>



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

ACIP General Recommendations

- Vaccine administration guidelines
- Contraindication and precautions
- Table 1 Recommended and Minimum Ages and Intervals Between Doses and its footnotes

<http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf>

TABLE 1. Recommended and minimum ages and intervals between vaccine doses*†

Vaccine and dose number	Recommended age for this dose	Minimum age for this dose	Recommended interval to next dose	Minimum interval to next dose
HepB-1 [§]	Birth	Birth	1–4 months	4 weeks
HepB-2	1–2 months	4 weeks	2–17 months	8 weeks
HepB-3 [¶]	6–18 months	24 weeks	—	—
DTaP-1 [§]	2 months	6 weeks	2 months	4 weeks
DTaP-2	4 months	10 weeks	2 months	4 weeks
DTaP-3	6 months	14 weeks	6–12 months	6 months**††
DTaP-4	15–18 months	12 months	3 years	6 months**
DTaP-5	4–6 years	4 years	—	—
Hib-1 ^{§,§§}	2 months	6 weeks	2 months	4 weeks
Hib-2	4 months	10 weeks	2 months	4 weeks
Hib-3 ^{¶¶}	6 months	14 weeks	6–9 months	8 weeks
Hib-4	12–15 months	12 months	—	—
IPV-1 [§]	2 months	6 weeks	2 months	4 weeks
IPV-2	4 months	10 weeks	2–14 months	4 weeks
IPV-3	6–18 months	14 weeks	3–5 years	6 months
IPV-4***	4–6 years	4 years	—	—
PCV-1 ^{§§}	2 months	6 weeks	8 weeks	4 weeks
PCV-2	4 months	10 weeks	8 weeks	4 weeks
PCV-3	6 months	14 weeks	6 months	8 weeks

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

Vaccine Information Statements (VISs)

- ❑ VISs requirements
 - benefits
 - risks
 - injury compensation program
- ❑ Healthcare provider requirements
 - give VISs before vaccine is administered
 - offer a copy of the VISs to take away
 - applies to every dose of a vaccine series not just the first dose

VISs Webpage

- ❑ www.cdc.gov/vaccines/pubs/vis
- ❑ downloadable PDF files
- ❑ links to RTF files
- ❑ links to translations
- ❑ link to one-page instruction sheet with essential VISs information titled “Mandatory Instructions for the Use of Vaccine Information Statements”

VIS Updates – E-mail

- ▣ Almost 100,000 subscribers *



* As of August 2012

Healthcare Provider Requirements

- ❑ Record in medical record or permanent office log
 - date vaccine was administered
 - vaccine manufacturer
 - lot number
 - name, address and title of person administering vaccine
 - VIS edition date
 - date VIS was provided
- ❑ MDPH also recommends the vaccine type, dose, site and route of administration be documented

MDPH Vaccine Administration Record

Vaccine Administration Record – All Ages										
Record No. / Insurance No.: _____					Clinic Name and Address: Use Reverse Side for Names and Initials of Vaccine Administrators					
Patient Name: _____										
Address: _____										
Birth Date: _____ Male Female										
<p>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.</p> <p>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.</p>										
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-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						
Hemophilus influenzae type b (e.g., Hib, HepB-Hib, DTaP-IPV/Hib, Hib-MenCV)				IM						
Polio (e.g., IPV, DTaP-IPV/Hib, DTaP-HepB-IPV, DTaP-IPV)										
Pneumococcal Conjugate (PCV7, PCV13)										
Hepatitis A (HepA, HepA-HepB)										
Rotavirus (e.g., RV3, 3-dose series, RV1, 2-dose series)										
Measles, Mumps, Rubella (MMR, MMRV)				SC						
				SC						

rence

28

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
 - Access given to healthcare professionals that administer immunizations, as well as schools, LBOH, WIC, and other state agencies' programs involved in immunizations
- MIIS Policy Statement
 - outlines information on system access, confidentiality, and requirements for reporting immunizations
 - describes 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

Adverse Event Classification

- ❑ Vaccine-induced
- ❑ Vaccine-potentiated
- ❑ Programmatic error
- ❑ Coincidental

Vaccine Adverse Reactions

□ Adverse reaction

- extraneous effect *caused by vaccine*
- side effect

□ Adverse event

- *any* event following vaccination
- may be true adverse reaction
- may be only coincidental

Vaccine Adverse Reactions

□ Systemic

- fever, malaise, headache
- nonspecific
- may be unrelated to vaccine

Vaccine Adverse Event Reporting System (VAERS)

- ❑ National reporting system
- ❑ Jointly administered by CDC and FDA
- ❑ Passive (depends on healthcare providers and others to report)
- ❑ Receives about 28,000 reports per year

Vaccine Adverse Event Reporting System (VAERS)

- ❑ Detects
 - new or rare events
 - increases in rates of known side effects
 - patient risk factors
- ❑ Additional studies required to confirm VAERS signals
- ❑ Not all reports of adverse events are causally related to vaccine

www.vaers.hhs.gov

Vaccine Safety Datalink (VSD)

- ❑ Involves partnerships with 10 large managed care organizations
- ❑ Links vaccination and health records
- ❑ Allows for planned immunization safety studies
- ❑ Allows for investigations of hypotheses that arise from review of medical literature, reports to VAERS changes in immunization schedules, or the introduction of new vaccines

Recent IOM report states: The federal surveillance infrastructure for detecting adverse events is robust, particularly Vaccine Safety Datalink, and provides confidence about safety of current schedule

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

www.hrsa.gov/vaccinecompensation

Institute of Safe Medication Practices (ISMP)

❑ What to report?

- Errors in the prescribing, transcribing, dispensing, administering, and monitoring of medications;
- Wrong drug, wrong strength, or wrong dose errors;
- Wrong patient errors;
- Confusion over look-alike/sound-alike drugs or similar packaging;
- Wrong route of administration errors;
- Calculation or preparation errors; and
- Misuse of medical equipment.

❑ Report all medical errors online to ISMP at:

www.ismp.org

Tips to Increase Immunization Rates

- ❑ Incorporate measures to improve vaccination rates
 - Strong routine recommendation for vaccines
 - reminder/recall
 - standing orders/vaccine only visits
 - speak from personal experience
 - provide information in foreign languages
 - avoid “missed opportunities”

What you say matters.

How you say it matters even more!

Model Standing Orders

- ❑ Adult and Childhood Vaccines
 - Recommended use
 - Contraindications and precautions
- ❑ Emergency Orders
- ❑ Immunize Action Coalition and MA Department of Public Health

IAC

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

MDPH

<http://mass.gov/dph/imm>

Standing Orders for Administering Varicella Vaccine to Children & Teens

Purpose: To reduce morbidity and mortality from varicella (chickenpox) by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), when allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedures:

- Screen, vaccinate and track ages 12 months and older in need of vaccination against varicella (Chick. Disease: VZV) against children who are at increased risk for morbidity from varicella and higher case-fatality. Single antigen varicella vaccine should be considered for 80% of children with CD4+ T lymphocyte percentage <15% or for adolescents with CD4+ T lymphocyte count <200 cells/mm³.
- Screen all patients for contraindications and precautions to varicella vaccine:
 - Contraindications:**
 - History of a serious reaction (e.g., anaphylaxis) after a previous dose of varicella vaccine or to a varicella vaccine component and a list of vaccine components, as in www.cdc.gov/vaccines/imz/downloads/contraindications.pdf.
 - Pregnancy or in next vaccine pregnant within 1 month.
 - Having any malignant condition, including blood dyscrasias, leukemias, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic system.
 - Receiving high-dose systemic immunosuppressive therapy (e.g., two weeks or more of daily receipt of 20 mg or more per 1.73 m² body weight or more of prednisone or equivalent).
 - Having history of congenital or hereditary immunodeficiency or low-dose radiation (e.g., prostate, uterine) unless the immune competence of the potential vaccine recipient has been clinically substantiated or verified by a physician.
 - A child with CD4+ T lymphocyte percentage <15% or an adolescent with CD4+ T lymphocyte count <200 cells/mm³.
 - For combination MMRV only, primary or acquired immunodeficiency, including immunosuppressive treatment with zidovudine or other clinical manifestations of HIV infection, cellular immunodeficiencies, lymphoproliferative disorders, and the use of immunoglobulin.
 - Precautions:**
 - Vaccine receipt within the previous 12 months of methods containing blood product (specific interval depends on product).
 - Moderate or severe acute illness with or without fever.
- Provide all patients (parent/legal representative) with a copy of the state immunization information system (SIIS). The most appropriate, in the patient's medical record or other file, the notification date of the VZV and the date it was given to the patient (parent/legal representative). Provide non-English speaking patients with a copy of the VZV in their native language. If available, these can be found at www.mass.gov/immz.
- Provide routine vaccination with varicella vaccine at ages 12-15 months and at 4-6 years. Adolescents 15-17 not vaccinated subsequently (15-17 y) need to be vaccinated by the age 18 for the children and teens.
- For children and teens who have not received two doses of varicella vaccine (generally given at the ages specified in this plan) a first at the earliest opportunity and then schedule a second dose, if needed. Observe minimum intervals of 10 weeks between doses for children ages 12 years or younger and 12 weeks between doses for ages 13 years and older.
- Document each patient's vaccine administration information and follow up in the following places:
 - Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and date, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason for the non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
 - Parental immunization record card:** Record the date of vaccination and the manufacturer of the administering clinic.
- Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.
- Report all adverse reactions to varicella vaccine to the National Vaccine Injury Compensation System (NVICIS) at www.hhs.gov/nvix or by calling (800) 338-7607. NVICIS report forms are available at www.hhs.gov/nvix.

This policy and procedure shall remain in effect for all patients of the _____ until _____.

Medical Director's signature: _____ Effective date: _____
(Signature of medical director or other authorized official) (Date of signature)

Immunization Action Coalition • 2013 July 10 • 1-800-368-5848 • 2013-07-10 • 1-800-368-5848 • www.immunize.org • www.mass.gov/immz

Questions?

