

# VACCINATE ADULTS!

Visit [www.immunize.org](http://www.immunize.org) for up-to-date adult immunization information from the Immunization Action Coalition

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## CDC's 2010–11 influenza recommendations are now simple and easy to remember — everyone, every year!

Dear Colleagues,

In February, the Advisory Committee on Immunization Practices (ACIP), which advises the Centers for Disease Control and Prevention (CDC) on vaccine guidance, made a landmark decision establishing a universal influenza vaccine recommendation, starting with the 2010–11 influenza season. This means that all people in the United States—excluding babies younger than age six months and people with certain medical conditions—are now recommended to receive influenza vaccine every year.

The new recommendation is simple, straightforward, and easy to communicate. It eliminates the complexities of the prior recommendations, which said people should be vaccinated if they fell into any of 15 different targeted groups (a lengthy list to commit to memory). Going forward, healthcare professionals will have a very easy time deciding which of their patients are recommended for

influenza vaccine. And patients will eventually come to recognize that influenza vaccine is routinely recommended for them. Now, the message is simple: everyone, every year, unless specifically contraindicated.

Here at the Immunization Action Coalition, we welcome this change. We think it will erase any uncertainties healthcare professionals and their patients may have had about who should be vaccinated, and will lead to more people than ever protecting themselves, their families, and their communities by getting immunized.

Best regards,

*Deborah L. Wexler, MD*

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## Ask the Experts

IAC extends thanks to our experts, William L. Atkinson, MD, MPH, and Andrew T. Kroger, MD, MPH, medical epidemiologists at the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

### Immunization questions

**I've heard that the recommendations for influenza vaccination have been expanded for the 2010–11 season. Tell me more.**

At its February 2010 meeting, ACIP voted to recommend routine annual influenza vaccination for all people age 6 months and older, beginning with the 2010–11 influenza vaccination season. This change expands the existing recommendations to include all healthy adults ages 19 through 49 years who hadn't previously been included in routine vaccination recommendations. On March 2, the provisional influenza vaccine recommenda-

tions were posted on CDC's website at [www.cdc.gov/vaccines/recs/provisional/downloads/flu-vac-mar-2010-508.pdf](http://www.cdc.gov/vaccines/recs/provisional/downloads/flu-vac-mar-2010-508.pdf).

**Will we need to give H1N1 vaccine as a separate vaccine in the next season (2010–11)?**

No. The 2009 H1N1 virus will be incorporated into the 2010–11 seasonal influenza vaccine formulation. The three influenza viruses in the vaccine are A/California (H1N1) [formerly known as the 2009 H1N1], A/Perth (H3N2) [replacing the 2009–10 A/Brisbane (H3N2)], and B/Brisbane [same as in the 2009–10 vaccine].

**I would like to help establish a policy of mandatory vaccination for healthcare workers in our facility and would like to learn from others. Can you help?**

You will be happy to know that more and more healthcare facilities are adopting mandatory vaccination policies for their employees. IAC has included many of these on its Honor Roll for Patient Safety, which gives special recognition to institutions that enforce mandatory vaccination for all personnel who are in the vicinity of a patient (e.g., including volunteers, housekeeping staff). To read about the policies of the various facilities included in the Honor Roll, go to [www.immunize.org/laws/infleunzahcw.asp](http://www.immunize.org/laws/infleunzahcw.asp). We hope reviewing these policies will give you the information you need to assist you in developing a policy for your facility.

**We have a mandatory vaccination policy in our facility; however, we allow employees to choose not to be vaccinated after filling out**

**and signing an informed declination form. What can we do to achieve assurances that patient safety is still maintained?**

Though vaccination is the most effective means of protecting your patients from influenza, there may be instances where employees are not vaccinated for medical or personal reasons. In these instances, you may want to consider reassigning unvaccinated workers to non-patient areas or requiring that they wear masks throughout the influenza season.

**When should we stop giving H1N1 influenza vaccine for the 2009–10 season?**

The answer is the same for both H1N1 and seasonal influenza vaccines—providers are encouraged to continue vaccinating patients into the spring months (e.g., through May), as long as they have

*(continued on page 12)*

### Immunization questions?

- Call the CDC-INFO Contact Center at (800) 232-4636 or (800) CDC-INFO
- Email [nipinfo@cdc.gov](mailto:nipinfo@cdc.gov)
- Call your state health dept. (phone numbers at [www.immunize.org/coordinators](http://www.immunize.org/coordinators))

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The Immunization Action Coalition's 2 periodicals, *Vaccinate Adults* and *Needle Tips*, and our email news service, *IAC Express*, are packed with up-to-date information.

**Subscribe to all 3 free publications in one place. It's simple! Go to**

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## Vaccinate Adults!

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[www.izcoalitions.org](http://www.izcoalitions.org)

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# IAC's Image Library Brings You the Power of Photos

**Photos are invaluable teaching tools for staff and patients — download them from [www.immunize.org/photos](http://www.immunize.org/photos)**

View and download hundreds of images related to vaccination and vaccine-preventable diseases from the Immunization Action Coalition's (IAC's) gallery of digital images. Use these images to educate patients and staff about the diseases that vaccines prevent. The majority of images in this section are free to download. Many have been graciously provided by healthcare professionals and scientists from around the world.

## Vaccination Photographs

The IAC Image Library includes pictures of healthcare professionals vaccinating infants, children, teens, and adults. These images are ready to incorporate into newsletters, posters, and brochures.



Three generations watch vaccination

## Images of 19 Vaccine-Preventable Diseases

IAC's library includes hundreds of vaccine-preventable disease images. The photos of clinical cases are invaluable teaching tools about infectious diseases of today and yesteryear. The micrographs of viruses, bacteria, and pathology specimens make the invisible visible. These images are organized by disease, making them easy for healthcare professionals, the media, and others to access, download, and use in lectures, articles, presentations, and in creating patient education materials.



Most Hib cases require hospitalization



This is a child with measles

## Global Immunization Campaigns

The IAC Image Library also features slideshows of Global Immunization Campaigns, past and present. This section houses photo galleries and historic pictures showing how vaccination efforts are improving lives of people around the world. See first hand the effort to immunize the world's children against life-threatening diseases.



Rotavirus vaccine travels in Nicaragua

This section features a slideshow presentation from the Bill and Melinda Gates Foundation about the global rotavirus immunization program, as well as a photo essay by Tim Brookes and Omar A. Khan, MD, MHS, who share images from Pakistan, where they accompanied polio eradication team members in the field. View hundreds of historic images that document the smallpox eradication campaign from the Global Health Chronicles project.



This child's twin also has polio

## Other Image Libraries

IAC provides links to CDC's Public Health Image Library, the American Academy of Pediatrics' collection of photographs of children affected by vaccine-preventable diseases, as well as the National Library of Medicine's images from the history of medicine.

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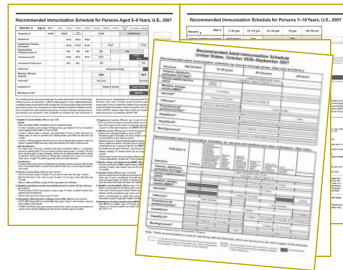
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**Visit the Immunization Action Coalition's website often! [www.immunize.org](http://www.immunize.org)**

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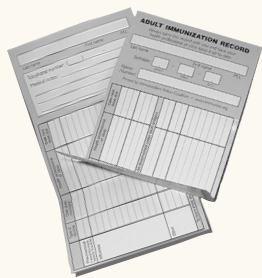
## Laminated adult and child immunization schedules Order one of each for every exam room

Here are the ACIP/AAFP/ACOG/ACP-approved immunization schedule for adults and the ACIP/AAP/AAFP-approved schedule for people ages 0 through 18 years. Both are laminated and washable for heavy-duty use, complete with essential footnotes, and printed in color for easy reading. The cost is \$7.50 for each schedule and only \$5.50 each for five or more copies.



To order, visit [www.immunize.org/shop](http://www.immunize.org/shop), or use the order form on page 11.  
For 20 or more copies, contact us for discount pricing: [admininfo@immunize.org](mailto:admininfo@immunize.org)

## Immunization record cards available for all ages— For adults, for children & teens, and for a lifetime!

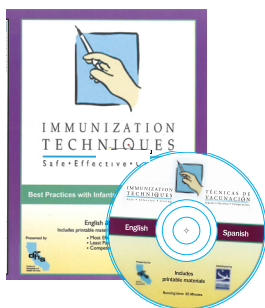


Now you can give any patient a permanent vaccination record card designed specifically for their age group: adult, child & teen, or lifetime. The three cards list all vaccines recommended for each age. The cards are printed on durable rip-, smudge-, and water-proof paper. Wallet-sized when folded, the cards are brightly colored to stand out. To view the cards or for more details, go to [www.immunize.org/shop](http://www.immunize.org/shop) and click on the images.

Buy 1 box (250 cards) for \$37.50 (first order of a 250-card box comes with a 30-day, money-back guarantee). Discounts for larger orders:  
2 boxes \$35 each; 3 boxes \$32.50 each; 4 boxes \$30 each

To order, visit [www.immunize.org/shop](http://www.immunize.org/shop), or use the order form on page 11.  
To receive sample cards, contact us: [admininfo@immunize.org](mailto:admininfo@immunize.org)

## Immunization Techniques: Safe, Effective, Caring — DVD or VHS video (created by the State of California, Immunization Program, 2001)



This 35-minute DVD or VHS video presents practical information on administering intramuscular (IM) and subcutaneous (SC) vaccines to people of all ages. Includes discussion of anatomic sites, needle sizes, vaccines and routes of administration, and much more. Excellent for training new staff and refreshing experienced staff. Comes with presenter notes and a skills checklist. \$10.50 for DVD or VHS video.

To order, visit [www.immunize.org/shop](http://www.immunize.org/shop),  
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# Vaccine Highlights

## Recommendations, schedules, and more

*Editor's note: The information in Vaccine Highlights is current as of April 21, 2010.*

### Vaccine safety news

On March 12, three Special Masters of the U.S. Court of Federal Claims ruled that thimerosal-containing vaccines do not cause autism. The rulings are part of the Omnibus Autism Proceeding created by the National Vaccine Injury Compensation Program to consolidate the large number of claims that vaccines induce autism. Another ruling last year from the same court declared that the measles-mumps-rubella vaccine, or MMR, in combination with thimerosal-containing vaccines, does not cause autism. To access the three rulings issued on March 12, 2010, go to [www.uscfc.uscourts.gov/node/5026](http://www.uscfc.uscourts.gov/node/5026).

On Feb. 2, the editors of *The Lancet* published a retraction of the February 1998 paper titled "Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children." The paper, by Andrew Wakefield, MB, BS, FRCS, and 12 other authors, suggested a link between MMR vaccine and autism. To access *The Lancet's* retraction statement, go to <http://press.thelancet.com/wakefieldretraction.pdf>. To access background information on the sequence of events that led up to the retraction, go to <http://briandeer.com/mmr/lancet-retraction.htm>.

### Influenza vaccine news

On Feb. 24, ACIP voted to expand the recommendations for annual influenza vaccination to include all people ages 6 months and older. The new recommendation is to take effect for the 2010–11 influenza season, at which time providers will find it easy to remember which of their patients to vaccinate—every person age 6 months and older.

On March 2, CDC posted the provisional influenza vaccination recommendations on its website at [www.cdc.gov/vaccines/recs/provisional/downloads/flu-vac-mar-2010-508.pdf](http://www.cdc.gov/vaccines/recs/provisional/downloads/flu-vac-mar-2010-508.pdf).

At a press briefing held March 29, U.S. Surgeon General Dr. Regina Benjamin and assistant U.S. Surgeon General Dr. Anne Schuchat reported that the Southeastern U.S. is seeing an increase in H1N1 influenza activity. Three states—Georgia, Alabama, and South Carolina—are reporting regional activity, with the Georgia Department of Community Health reporting an increase in influenza-related hospitalizations. Most hospitalizations have occurred in adults with underlying health conditions that put them at higher risk of severe influenza. Doctors Benjamin and Schuchat remind people that vaccination offers the best pro-

tection and that H1N1 vaccine is widely available throughout the United States. To access the transcript of the press briefing, go to [www.cdc.gov/media/transcripts/2010/t100329.htm](http://www.cdc.gov/media/transcripts/2010/t100329.htm).

### Meningococcal vaccine news

On Feb. 19, FDA approved Menveo (Novartis) quadrivalent meningococcal conjugate vaccine for use in people ages 11 through 55 years to prevent invasive meningococcal disease caused by *Neisseria meningitidis* serogroups A, C, Y, and W-135. To access the package insert, go to [www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM201349.pdf](http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM201349.pdf).

On March 12, CDC published guidance for the use of Menveo, a single dose of which is indicated for all people ages 11–18 years and for people ages 11–55 years who are at increased risk for meningococcal disease. To read the guidance, go to [www.cdc.gov/mmwr/preview/mmwrhtml/mm5909a5.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5909a5.htm).

### HPV vaccine news

On March 30, CDC published two interim VISs—one for each of the two human papillomavirus (HPV) vaccines licensed for use in the United States. One VIS is intended for use when administering Gardasil (Merck) and the other when administering Cervarix (GSK). To access the VISs, go to [www.immunize.org/vis](http://www.immunize.org/vis).

### Japanese encephalitis news

On March 12, CDC published ACIP recommendations for the use of Japanese encephalitis (JE) vaccine. JE vaccine is recommended for travelers who plan to spend a month or longer in endemic areas during the Japanese encephalitis virus (JEV) transmission season and for laboratory workers with a potential for exposure to infectious JEV. To read the complete recommendations, go to [www.cdc.gov/mmwr/pdf/tr/tr5901.pdf](http://www.cdc.gov/mmwr/pdf/tr/tr5901.pdf).

On March 1, CDC published two VISs—one for each of the two Japanese encephalitis (JE) vaccines licensed for use in the United States. One VIS is intended for use when administering Ixiaro (Inter-cell Biomedical) and the other when administering JE-VAX (sanofi pasteur). JE-VAX is available only for children age 1 through 16 years. Ixiaro is indicated for people age 17 years and older. To access these VISs, go to [www.immunize.org/vis](http://www.immunize.org/vis).

### Rabies vaccine news

On March 19, CDC published ACIP recommendations for the use of a reduced (4-dose) vaccination schedule for postexposure prophylaxis (PEP) to prevent human rabies in people previously unvaccinated. The prior recommendation was for a 5-dose series. The first dose of the 4-dose course should be administered as soon as possible after exposure (day 0), with additional doses administered on days 3, 7, and 14 after dose 1. Rabies vaccine is administered intramuscularly. To access the complete recommendations, go to [www.cdc.gov/mmwr/pdf/tr/tr5902.pdf](http://www.cdc.gov/mmwr/pdf/tr/tr5902.pdf).

## Honoring Healthcare Institutions with Stellar Influenza Vaccination Policies

IAC instituted its Honor Roll for Patient Safety to recognize forward-looking hospitals, professional societies, and government entities that have taken a stand for patient safety by strengthening mandatory influenza vaccination policies for healthcare workers. To date, more than 50 organizations have qualified.

To qualify, an organization must require influenza vaccination for employees, and its mandate must include serious measures to prevent transmission of influenza from unvaccinated workers to patients. Such measures might include a mask requirement, reassignment to non-patient-care duties, or dismissal of the employee.

Noted honorees include the Infectious Diseases Society of America, Children's Hospital of Philadelphia, Barnes Jewish Corporation Healthcare, and Johns Hopkins Health System.

To read about the policies of the organizations that are included, or to apply for the Honor Roll for Patient Safety, go to

[www.immunize.org/laws/influenzahcw.asp](http://www.immunize.org/laws/influenzahcw.asp)



# Summary of Recommendations for Adult Immunization

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Seasonal Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i></p> <p>Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i></p>	<ul style="list-style-type: none"> <li>Beginning with the 2010–11 influenza season, vaccination is recommended for all adults. (This includes healthy adults ages 19–49yrs without risk factors.)</li> <li>LAIV is only approved for healthy nonpregnant people age 2–49yrs.</li> </ul> <p><b>Note:</b> LAIV may not be given to some adults; see contraindications and precautions listed in far right column.</p>	<ul style="list-style-type: none"> <li>Give 1 dose every year in the fall or winter.</li> <li>Begin vaccination services as soon as vaccine is available and continue until the supply is depleted.</li> <li>Continue to give vaccine to unvaccinated adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists.</li> <li>If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.</li> <li>For LAIV only: pregnancy; chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic (including diabetes) disorders; immunosuppression (including that caused by medications or HIV).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination.</li> <li>For LAIV only: close contact with an immunosuppressed person when the person requires protective isolation.</li> <li>For LAIV only: receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination.</li> </ul>
<p><b>Pneumococcal polysaccharide (PPSV)</b> <i>Give IM or SC</i></p>	<ul style="list-style-type: none"> <li>People age 65yrs and older.</li> <li>People younger than age 65yrs who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease (including asthma), chronic liver disease, alcoholism, diabetes, CSF leaks, cigarette smoking, as well as people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).</li> <li>Those at highest risk of fatal pneumococcal infection, including people who             <ul style="list-style-type: none"> <li>Have anatomic or functional asplenia, including sickle cell disease.</li> <li>Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome.</li> <li>Are receiving immunosuppressive chemotherapy (including corticosteroids).</li> <li>Have received an organ or bone marrow transplant.</li> <li>Are candidates for or recipients of cochlear implants.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Give 1 dose if unvaccinated or if previous vaccination history is unknown.</li> <li>Give a 1-time revaccination 5yrs or more after 1st dose to people             <ul style="list-style-type: none"> <li>Age 65yrs and older if the 1st dose was given prior to age 65yrs</li> <li>At highest risk of fatal pneumococcal infection or rapid antibody loss (see the 3rd bullet in the box to left for listings of people at highest risk).</li> </ul> </li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>

\*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, call the CDC-INFO Contact Center at (800) 232-4636; visit CDC’s website at [www.cdc.gov/vaccines/pubs/ACIP-list.htm](http://www.cdc.gov/vaccines/pubs/ACIP-list.htm); or visit the Immunization Action Coal-

ition (IAC) website at [www.immunize.org/acip](http://www.immunize.org/acip). This table is revised periodically. Visit IAC’s website at [www.immunize.org/adultrules](http://www.immunize.org/adultrules) to make sure you have the most current version.

# Summary of Recommendations for Adult Immunization (continued)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>• People born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if there is no laboratory evidence of immunity or documentation of a dose given on or after the first birthday.</li> <li>• People in high-risk groups, such as healthcare personnel (paid, unpaid, or volunteer), students entering college and other post-high school educational institutions, and international travelers, should receive a total of 2 doses.</li> <li>• People born before 1957 are usually considered immune, but evidence of immunity (serology or documented history of 2 doses of MMR) should be considered for healthcare personnel.</li> <li>• Women of childbearing age who do not have acceptable evidence of rubella immunity or vaccination.</li> </ul>	<ul style="list-style-type: none"> <li>• Give 1 or 2 doses (see criteria in 1st and 2nd bullets in box to left).</li> <li>• If dose #2 is recommended, give it no sooner than 4wks after dose #1.</li> <li>• If a pregnant woman is found to be rubella susceptible, give 1 dose of MMR postpartum.</li> <li>• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> <li>• Within 72hrs of measles exposure, give 1 dose as postexposure prophylaxis to susceptible adults.</li> </ul> <p><b>Note:</b> Routine post-vaccination serologic testing is not recommended.</p>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy; or severely symptomatic HIV). <b>Note:</b> HIV infection is NOT a contraindication to MMR for those who are not severely immunocompromised (i.e., CD4+ T-lymphocyte counts are greater than or equal to 200 cells/μL).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, and/or immune globulin were given in past 11m, see ACIP statement <a href="#">General Recommendations on Immunization</a>* regarding time to wait before vaccinating.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> </ul> <p><b>Note:</b> If TST (tuberculosis skin test) and MMR are both needed but not given on same day, delay TST for 4–6wks after MMR.</p>
<p><b>Varicella</b> (chickenpox) (Var) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>• All adults without evidence of immunity.</li> </ul> <p><b>Note:</b> Evidence of immunity is defined as written documentation of 2 doses of varicella vaccine; a history of varicella disease or herpes zoster (shingles) based on healthcare-provider diagnosis; laboratory evidence of immunity; and/or birth in the U.S. before 1980, with the exceptions that follow.</p> <ul style="list-style-type: none"> <li>- Healthcare personnel (HCP) born in the U.S. before 1980 who do not meet any of the criteria above should be tested or given the 2-dose vaccine series. If testing indicates they are not immune, give the 1st dose of varicella vaccine immediately. Give the 2nd dose 4–8 wks later.</li> <li>- Pregnant women born in the U.S. before 1980 who do not meet any of the criteria above should either 1) be tested for susceptibility during pregnancy and if found susceptible, given the 1st dose of varicella vaccine postpartum before hospital discharge, or 2) not be tested for susceptibility and given the 1st dose of varicella vaccine postpartum before hospital discharge. Give the 2nd dose 4-8wks later.</li> </ul>	<ul style="list-style-type: none"> <li>• Give 2 doses.</li> <li>• Dose #2 is given 4–8wks after dose #1.</li> <li>• If dose #2 is delayed, do not repeat dose #1. Just give dose #2.</li> <li>• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> <li>• May use as postexposure prophylaxis if given within 5d.</li> </ul> <p><b>Note:</b> Routine post-vaccination serologic testing is not recommended.</p>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Persons on high-dose immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired cellular immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte counts are greater than or equal to 200 cells/μL. See <a href="#">MMWR 2007;56,RR-4</a>).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement <a href="#">General Recommendations on Immunization</a>* regarding time to wait before vaccinating.</li> <li>• Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination.</li> </ul>

# Summary of Recommendations for Adult Immunization (continued)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Td, Tdap</b> (Tetanus, diphtheria, pertussis) <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>All adults who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine.</li> <li>A booster dose of tetanus- and diphtheria-toxoid-containing vaccine may be needed for wound management as early as 5yrs after receiving a previous dose, so consult ACIP recommendations.*</li> <li>Using tetanus toxoid (TT) instead of Td or Tdap is <u>not</u> recommended.</li> <li>In pregnancy, when indicated, give Td or Tdap in 2nd or 3rd trimester. If not administered during pregnancy, give Tdap in immediate postpartum period.</li> </ul> <p><b>For Tdap only:</b></p> <ul style="list-style-type: none"> <li>All adults younger than age 65yrs who have not already received Tdap.</li> <li>Adults in contact with infants younger than age 12m (e.g., parents, grandparents younger than age 65yrs, childcare providers, healthcare personnel) who have not received a dose of Tdap should be prioritized for vaccination.</li> <li>Healthcare personnel who work in hospitals or ambulatory care settings and have direct patient contact and who have not received Tdap.</li> </ul>	<ul style="list-style-type: none"> <li>For people who are unvaccinated or behind, complete the primary series with Td (spaced at 0, 1–2m, 6–12m intervals). A one-time dose of Tdap may be used for any dose if younger than age 65yrs.</li> <li>Give Td booster every 10yrs after the primary series has been completed. For adults younger than age 65yrs, a 1-time dose of Tdap is recommended to replace the next Td.</li> <li>Intervals of 2yrs or less between Td and Tdap may be used.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>For Tdap only, history of encephalopathy within 7d following DTP/DTaP.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Guillain-Barré syndrome within 6wks following previous dose of tetanus-toxoid-containing vaccine.</li> <li>Unstable neurologic condition.</li> <li>History of Arthus reaction following a previous dose of tetanus- and/or diphtheria-toxoid-containing vaccine, including MCV4.</li> </ul> <p><b>Note:</b> Tdap may be given to pregnant women at the provider’s discretion.</p>
<p><b>Hepatitis A</b> (HepA) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>All people who want to be protected from hepatitis A virus (HAV) infection.</li> <li>People who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.</li> <li>People with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; people who work with HAV in experimental lab settings; food handlers when health authorities or private employers determine vaccination to be appropriate.</li> <li>People who anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee’s arrival in the U.S.</li> <li>Adults age 40yrs or younger with recent (within 2 wks) exposure to HAV. For people older than age 40yrs with recent (within 2 wks) exposure to HAV, immune globulin is preferred over HepA vaccine.</li> </ul>	<ul style="list-style-type: none"> <li>Give 2 doses.</li> <li>The minimum interval between doses #1 and #2 is 6m.</li> <li>If dose #2 is delayed, do not repeat dose #1. Just give dose #2.</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>For Twinrix (hepatitis A and B combination vaccine [GSK]) for patients age 18yrs and older only: give 3 doses on a 0, 1, 6m schedule. There must be at least 4wks between doses #1 and #2, and at least 5m between doses #2 and #3.</p> <p>An alternative schedule can also be used at 0, 7d, 21–30d, and a booster at 12m.</p> </div>	<p><b>Contraindication</b></p> <p>Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Safety during pregnancy has not been determined, so benefits must be weighed against potential risk.</li> </ul>
<p><b>Hepatitis B</b> (HepB) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>All people through age 18yrs.</li> <li>All adults who want to be protected from hepatitis B virus infection.</li> <li>High-risk people, including household contacts and sex partners of HBsAg-positive people; injecting drug users; sexually active people not in a long-term, mutually monogamous relationship; men who have sex with men; people with HIV; persons seeking evaluation or treatment for an STD; patients receiving hemodialysis and patients with renal disease that may result in dialysis; healthcare personnel and public safety workers who are exposed to blood; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities; and certain international travelers.</li> <li>People with chronic liver disease.</li> </ul> <p><b>Note:</b> Provide serologic screening for immigrants from endemic areas. If patient is chronically infected, assure appropriate disease management. For sex partners and household contacts of HBsAg-positive people, provide serologic screening and administer initial dose of HepB vaccine at same visit.</p>	<p>Give 3 doses on a 0, 1, 6m schedule.</p> <ul style="list-style-type: none"> <li>Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m.</li> <li>There must be at least 4wks between doses #1 and #2, and at least 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3.</li> </ul> <p><b>Schedule for those who have fallen behind:</b> If the series is delayed between doses, DO NOT start the series over. Continue from where you left off.</p>	<p><b>Contraindication</b></p> <p>Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>

# Summary of Recommendations for Adult Immunization (continued)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Human papillomavirus (HPV)</b> (HPV2, Cervarix) (HPV4, Gardasil) <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>All previously unvaccinated women through age 26yrs.</li> <li>Consider giving HPV4 to men through age 26yrs to reduce their likelihood of acquiring genital warts.</li> </ul>	<ul style="list-style-type: none"> <li>Give 3 doses on a 0, 2, 6m schedule.</li> <li>There must be at least 4wks between doses #1 and #2 and at least 12wks between doses #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all three doses.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Data on vaccination in pregnancy are limited. Vaccination should be delayed until after completion of the pregnancy.</li> </ul>
<p><b>Zoster (shingles)</b> (Zos) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>People age 60yrs and older.</li> </ul>	<ul style="list-style-type: none"> <li>Give 1-time dose if unvaccinated, regardless of previous history of herpes zoster (shingles) or chickenpox.</li> <li>If 2 or more of the following live virus vaccines are to be given—MMR, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to any component of zoster vaccine.</li> <li>Primary cellular or acquired immunodeficiency.</li> <li>Pregnancy.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination.</li> </ul>
<p><b>Meningococcal conjugate vaccine (MCV4)</b> Menactra, Menveo <i>Give IM</i></p> <p><b>Meningococcal polysaccharide vaccine (MPSV4)</b> <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>All people age 11 through 18yrs.</li> <li>Unvaccinated college freshmen who live in dormitories.</li> <li>People with anatomic or functional asplenia or persistent complement component deficiency.</li> <li>People who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of Sub-Saharan Africa).</li> <li>Microbiologists routinely exposed to isolates of <i>N. meningitidis</i>.</li> <li>Military recruits</li> </ul>	<ul style="list-style-type: none"> <li>Give 1 dose.</li> <li>MCV4 is preferred over MPSV4 for people age 55yrs and younger; use MPSV4 ONLY if age 56yrs or older or if there is a permanent contraindication/precaution to MCV4.</li> <li>If previous vaccine was MCV4 or MPSV4, revaccinate after 5yrs if risk continues.</li> <li>If the only risk factor is living in a campus dormitory, there is no need to give a 2nd dose if previous dose was MCV4.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>For MCV4 only, history of Guillain-Barré syndrome (if not at extremely high risk for meningococcal disease).</li> <li>In pregnancy, studies of vaccination with MPSV4 have not documented adverse effects so may use MPSV4, if indicated. No data are available on the safety of MCV4 during pregnancy.</li> </ul>
<p><b>Polio (IPV)</b> <i>Give IM or SC</i></p>	<ul style="list-style-type: none"> <li>Not routinely recommended for U.S. residents age 18yrs and older.</li> </ul> <p><b>Note:</b> Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults can receive 1 booster dose if traveling to polio endemic areas or to areas where the risk of exposure is high.</p>	<ul style="list-style-type: none"> <li>Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>

# Guide to Contraindications and Precautions to Commonly Used Vaccines in Adults

Vaccine	Contraindications	Precautions <sup>1</sup>
<b>Tetanus, diphtheria, pertussis (Tdap)</b> <b>Tetanus, diphtheria (Td)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>For Tdap only: 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/DTaP/Tdap</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus toxoid-containing vaccine</li> <li>History of Arthus-type hypersensitivity reaction following a previous dose of tetanus and/or diphtheria toxoid-containing vaccine: defer vaccination until at least 10 years have elapsed since the previous dose</li> <li>For Tdap only: Progressive or unstable neurologic disorder, uncontrolled seizures or progressive encephalopathy: defer vaccination with Tdap until a treatment regimen has been established and the condition has stabilized.</li> <li>For Td only: Unstable neurologic condition.</li> </ul>
<b>Human papilloma-virus (HPV)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Pregnancy</li> </ul>
<b>Measles, mumps, rubella (MMR)<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>Pregnancy</li> <li>Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy<sup>3</sup>; or patients with HIV infection who are severely immunocompromised)</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product<sup>4</sup>)</li> <li>History of thrombocytopenia or thrombocytopenic purpura</li> </ul>
<b>Varicella (Var)<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>Substantial suppression of cellular immunity<sup>4</sup></li> <li>Pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product<sup>4</sup>)</li> <li>Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination.</li> </ul>
<b>Influenza, injectable trivalent (TIV)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component, including egg protein</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>History of GBS within 6 wks of previous influenza vaccine</li> </ul>
<b>Influenza, live attenuated (LAIV)<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component, including egg protein</li> <li>Pregnancy</li> <li>Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy<sup>3</sup>; or patients with HIV infection who are severely immunocompromised)</li> <li>Certain chronic medical conditions<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>History of GBS within 6 wks of previous influenza vaccine</li> <li>Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.</li> <li>Close contact with an immunosuppressed person when the person requires protective isolation</li> </ul>
<b>Pneumococcal polysaccharide (PPSV)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> </ul>
<b>Hepatitis A (HepA)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Pregnancy</li> </ul>
<b>Hepatitis B (HepB)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> </ul>
<b>Meningococcal, conjugate (MCV4)</b> <b>Meningococcal, polysaccharide (MPSV4)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> </ul> <p>For MCV4 only: History of GBS (if not at extremely high risk for meningococcal disease)</p>
<b>Zoster (Zos)</b>	<ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>Substantial suppression of cellular immunity<sup>4</sup></li> <li>Pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>Moderate or severe acute illness with or without fever</li> <li>Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination.</li> </ul>

## Footnotes

- 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.
- LAIV, MMR, and varicella vaccines can be administered on the same day. If not administered on the same day, these vaccines should be separated by at least 28 days.
- Substantially immunosuppressive steroid dose is considered to be 2 weeks or more of daily receipt of 20 mg or more (or 2 mg/kg body weight or more) of prednisone or equivalent.
- For details, see CDC. "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)" at [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)
- For details, see CDC. "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP)" at [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).

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## Standing Orders for Administering Human Papillomavirus Vaccine to Adults

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**Purpose:** To reduce morbidity and mortality from human papillomavirus (HPV) infection by vaccinating all adults 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), where allowed by state law, may vaccinate adults who meet the criteria below.

### Procedure

1. Identify all women age 26 years and younger who have not completed a human papillomavirus (HPV) vaccination series. Identify men age 26 years and younger who wish to reduce their likelihood of acquiring genital warts.
2. Screen all patients for contraindications and precautions to HPV vaccine:
  - a. **Contraindication:** a history of a serious reaction after a previous dose of HPV vaccine or to a HPV vaccine component (e.g., yeast for quadrivalent HPV vaccine [HPV 4: Gardasil, Merck] or latex for bivalent HPV vaccine [HPV2: Cervarix, GSK]). For a complete list of vaccine components, go to [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf).
  - b. **Precautions:**
    - a moderate or severe acute illness with or without fever
    - pregnancy; delay vaccination until after completion of the pregnancy
3. Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). You must document, in the patient’s medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speaking patients with a copy of the VIS in their native language, if available; these can be found at [www.immunize.org/vis](http://www.immunize.org/vis).
4. Provide 1) either HPV2 or HPV4 to women or 2) HPV4 to men. Provide either vaccine in a 3-dose schedule at 0, 1–2, and 6 months. Administer 0.5 mL HPV vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle.
5. For adults who have not received HPV vaccine at the intervals specified in #4, provide subsequent doses of HPV vaccine to complete each patient’s 3-dose schedule by observing a minimum interval of 4 weeks between the first and second doses, 12 weeks between the second and third dose, and at least 24 weeks between the first and third doses.
6. Document each patient’s vaccine administration information and follow up in the following places:
  - a. **Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
  - b. **Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.
7. 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. To prevent syncope, consider observing patients for 15 minutes after they receive HPV vaccine.
8. Report all adverse reactions to HPV vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by calling (800) 822-7967. VAERS report forms are available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov).

This policy and procedure shall remain in effect for all patients of the \_\_\_\_\_ until rescinded or until \_\_\_\_\_ (date).  
(name of practice or clinic)

Medical Director’s signature: \_\_\_\_\_ Effective date: \_\_\_\_\_

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IAC has two laminated immunization schedules for 2010—one for adults and one for children/teens. Based on CDC's immunization schedules, these laminated schedules are covered with a tough, washable coating. This allows them to stand up to a year's worth of use as at-your-fingertips guides to immunization and as teaching tools you can use to give patients and parents authoritative information. Plus,

each schedule includes a guide to vaccine contraindications and precautions, an additional feature that will help you make on-the-spot determinations about the safety of vaccinating patients of any age.

To order laminated schedules or any of our other essential immunization resources, print out and mail or fax the form below or place your order online at [www.immunize.org/shop](http://www.immunize.org/shop).

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(details, p. 3; call for discounts on bulk orders)

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English on one side/Spanish on the other

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_____	R4065 Adult screening questionnaire in English/Spanish.....	\$ _____
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### Patient Immunization Record Cards – (wallet-sized)

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vaccine in the refrigerator and unvaccinated patients in their office. No one knows for sure how the H1N1 influenza epidemic will progress; some experts predict a third wave of cases in the spring. Be sure to check the expiration date before administering 2009 H1N1 vaccine—some lots expire earlier than seasonal influenza vaccine. Expired vaccine should never be administered.

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**Please tell me about the newly licensed meningococcal conjugate vaccine, Menveo.**

FDA licensed Menveo (Novartis) on Feb. 19. It is a quadrivalent meningococcal conjugate vaccine intended for use in people ages 11 through 55 years. Menveo protects against *Neisseria meningitidis* serogroups A, C, Y, and W-135. The vaccine consists of two components, a lyophilized vaccine (containing the serogroup A conjugate) and a buffered saline diluent (containing the C, W-135, and Y conjugates) used for reconstitution. The reconstituted vaccine should be used immediately but may be held at or below 77°F (25°C) for up to 8 hours. Menveo is administered as an intramuscular injection.

ACIP recommends meningococcal conjugate vaccine for all people ages 11–18 years and for people ages 2–55 years who are at increased risk for meningococcal disease. These include (1) college freshmen living in dormitories, (2) microbiologists who are exposed routinely to isolates of *Neisseria meningitidis*, (3) military recruits, (4) people who travel to or reside in countries where meningococcal disease is hyperendemic or epidemic, (5)

people who have persistent complement component deficiencies, and (6) people with anatomic or functional asplenia. Menveo or Menactra (sanofi pasteur) may be used in people ages 11–55 years. People ages 2–10 years who are recommended to receive a meningococcal vaccine should receive Menactra (which is licensed for this age group), and people older than age 55 years should receive meningococcal polysaccharide vaccine (MPSV).

**I have a 45-year-old patient who had an emergency splenectomy. Afterward, I gave her a dose of meningococcal vaccine. Will she need additional doses of meningococcal vaccine in the future?**

Yes. Since asplenia places her at highest risk for meningococcal infection, you should give her another dose of a meningococcal conjugate vaccine (MCV4) 5 years after the date you gave her the first dose. Then, give her additional doses of MCV4 every 5 years. Once she reaches age 56, all subsequent booster doses should be with meningococcal polysaccharide vaccine (MPSV4), which should be administered at 5-year intervals.

**I continue to see conflicting advice for giving pneumococcal vaccine to patients who do not have a spleen. Do they get re-immunized with pneumococcal polysaccharide vaccine (PPSV) every 5 years, or do they get only 1 additional dose in their lifetime?**

Giving pneumococcal vaccine every 5 years is a widespread myth; ACIP has never recommended an every-5-year schedule. People with asplenia age 2 years and older should receive a lifetime total of 2 doses of PPSV separated by a minimum of 5 years. Here is a good resource: [www.immunize.org/catg.d/p2015.pdf](http://www.immunize.org/catg.d/p2015.pdf).

**We have a newly diagnosed diabetic who was given the first dose of PPSV at age 65 years. Should I give him a second dose in 5 years because of his chronic disease?**

No. For people age 65 years and older, one-time revaccination is recommended only for those who are at highest risk for serious pneumococcal infec-

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tion and those who are likely to have a rapid decline in pneumococcal antibody levels. This includes people with functional or anatomic asplenia (e.g., sickle cell disease), HIV infection, leukemia, or other conditions associated with immunosuppression. It does not include diabetics.

**The new Zostavax vaccine (Merck) package insert says that Zostavax should not be given simultaneously with pneumococcal polysaccharide vaccine (PPSV). What does ACIP say about this?**

ACIP has not changed its recommendation on the simultaneous administration of these two vaccines (i.e., they can be given at the same time or any time before or after each other).

**Now that there is a second vaccine licensed for the prevention of Japanese encephalitis (JE) among travelers, where can I find the recommendations for its use?**

CDC recently published updated recommendations of the Advisory Committee on Immunization Practices for the use of both vaccines—JE-VAX (sanofi) and Ixiaro (Intercell Biomedical distributed by Novartis)—in *MMWR* 2010;59(RR-1):1-26. You can find them on CDC's website at [www.cdc.gov/mmwr/pdf/rr/rr5901.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr5901.pdf). Ixiaro is licensed for use in people 17 years and older. JE-VAX is no longer being produced, and remaining supplies are reserved for children ages 1 through 16 years.

**My patient got JE-VAX 5 years ago and is now returning to Asia. Can I use Ixiaro as a booster dose?**

There are no data on the use of Ixiaro as a booster for JE-VAX. If a previously vaccinated person age 17 years or older needs a booster dose, you should administer a full series (2 doses separated by at least 28 days) of Ixiaro.

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