What’s In This Issue

Why Give Tdap during Each Pregnancy? 1
Ask the Experts: CDC answers questions 1
New! IAC Launches Major Redesign of vaccineinformation.org 2
Vaccine Highlights: Recommendations, schedules, and more 4
IAC Welcomes Dr. Litjen (L.J) Tan as Chief Strategy Officer 5
Summary of Recommendations for Adult Immunization 6
Pneumococcal Vaccines — CDC answers your questions 10
New! Pneumococcal Vaccination Recommendations by Age/Risk Factor 11
Do I Need Any Vaccinations Today? 12
IAC’s Immunization Resources Order Form 14

Looking for Free Immunization Education Materials for Your Patients?
Visit www.immunize.org/handouts

Ask the Experts

IAC extends thanks to our experts, medical epidemiologist Andrew T. Kroger, MD, MPH; nurse educator Donna L. Weaver, RN, MN; and medical officer Iyabode Akinsanya-Beysolow, MD, MPH; All are with the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

Immunization questions

Is it still acceptable to use combination household units for storing vaccines?
CDC strongly recommends using stand-alone refrigerators and freezers for the following reasons:

• Most combination household refrigerators/freezers have a combined temperature control unit that can create cold spots and temperature fluctuations in the refrigerator portion of the unit.
• The risk of freeze damage to refrigerated vaccines is increased in combination units because air from the freezer is vented into the refrigerator to cool it. This can freeze temperature-sensitive vaccines.
• The freezer portions of many combination units are not capable of maintaining the correct storage temperature for frozen vaccines.

Purchasing new vaccine storage equipment requires planning, and you may need to use existing equipment for a while until you can purchase new equipment. In this situation, CDC recommends using a combination refrigerator/freezer unit for refrigerated vaccine only and using a separate stand-alone freezer to store frozen vaccines.

It is important to note that most combination refrigerator/freezers share a single condenser, and the very cold air from the freezer compartment is vented into the refrigerator compartment to cool the refrigerator. You should not turn off the freezer portion of the combination unit because it will not maintain the proper temperature for the refrigerated vaccines stored in the refrigerator portion of the unit. If you are using the refrigerator portion

(continued on page 5)

Stay current with FREE subscriptions
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 www.immunize.org/subscribe
IAC Launches Major Redesign of Its Website for the Public — www.vaccineinformation.org

We have completed a major transformation of our website for the public, www.vaccineinformation.org, making it one of the most comprehensive and user-friendly sources of scientifically accurate and easily navigable immunization information on the Web today. Visitors to the website can now readily find what they need, whether they are looking for information on a specific vaccine or on vaccines needed by a particular age group, personal stories or video clips, or other resources, such as those from CDC and state health departments.

Titled “Vaccine Information You Need,” the website offers parents, other adults, legislators, the media, and all interested Web users a one-stop shop for learning about vaccines and their importance.

HIGHLIGHTS OF THE REDESIGN

• Information on the website is organized into sections based on the four age groups listed below.
  – Infants/Children
  – Preteens
  – Teens
  – Adults

• Vaccines You Need: Detailed information about the immunization schedules, arranged by age group—infants and children, preteens, teens, and adults

• Personal Testimonies: Stories of suffering and loss from vaccine-preventable diseases, organized by age group and disease

• Video Library: Searchable collection of videos and public service announcements about vaccine-preventable diseases and the importance of vaccination

• Vaccine-Preventable Diseases: Information and resources for all vaccine-preventable diseases, including those associated with international travel

• Vaccine Basics: Basic and helpful information on vaccines and vaccination, ranging from “Paying for Vaccines” to “How Vaccines Work”

• Resources: Frequently updated listing of helpful resources, including brochures, blogs, videos, and more, for people in all age groups who seek information about vaccines

Please take some time to visit www.vaccineinformation.org and enjoy the colorful experience of “Vaccine Information You Need.” We would love to hear your comments; email us at admin@immunize.org.

Please link to www.vaccineinformation.org from your website, blog, or Facebook page.

DISCLAIMER: Vaccinate Adults! is available to all readers free of charge. Some of the information in this issue is supplied to us by the Centers for Disease Control and Prevention (CDC). All of the information in this issue is created or compiled by IAC. All of the information in this issue is of a time-critical nature, and we cannot guarantee that some of the information is timely. Before you rely on the information in this issue, you should first independently verify its current accuracy and completeness. IAC is not licensed to practice medicine or pharmacology, and the providing of the information in this issue does not constitute such practice. Any claim against IAC must be submitted to binding arbitration under the auspices of the American Arbitration Association in St. Paul, Minnesota.
Wallet-sized immunization record cards for all ages:
For adults, 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. These brightly colored cards are printed on durable rip-, smudge-, and water-proof paper. To view the cards or for more details, go to www.immunize.org/shop and click on the images.

Buy 1 box (250 cards) for $45 (first order of a 250-card box comes with a 30-day, money-back guarantee). Discounts for larger orders:
2 boxes $40 each; 3 boxes $37.50 each; 4 boxes $34.50 each

To order, visit www.immunize.org/shop, or use the order form on page 14.
To receive sample cards, contact us: admininfo@immunize.org

"Immunization Techniques — Best Practices with Infants, Children, and Adults"

The California Department of Public Health, Immunization Branch, updated its award-winning training video, "Immunization Techniques: Best Practices with Infants, Children, and Adults." The 25-minute DVD can be used to train new employees and to refresh the skills of experienced staff on administering injectable, oral, and nasal-spray vaccines to children, teens, and adults. Make sure your healthcare setting has the 2010 edition!

The cost is $17 each for 1–9 copies; $10.25 each for 10–24 copies; $7 each for 25–49 copies; $5.75 each for 50–99 copies.

To order, visit www.immunize.org/shop, or use the order form on page 14.
For 100 or more copies, contact us for discount pricing: admininfo@immunize.org

IAC Honors Healthcare Institutions With Stellar Influenza Vaccination Policies

IAC’s Honor Roll for Patient Safety recognizes hospitals, professional societies, and government entities that have taken a stand for patient safety by creating strong mandatory influenza vaccination policies for healthcare workers. More than 250 organizations are now enrolled.

Read the position statements of leading medical organizations and see the organizations now enrolled. You can apply for your organization to become a member. Access the Honor Roll at www.immunize.org/honor-roll

Advisory Board

Liaisons from Organizations
Berardette A. Alabanese, MD, MPH
Council of State & Territorial Epidemiologists
Stephen L. Cochi, MD, MPH
Nat’l Ctr. for Immun. & Resp. Diseases, CDC
Paul Etkind, DrPH, MPH
Nat’l Assn. of County & City Health Officials
Bruce Gellin, MD, MPH
National Vaccine Program Office, DHHS
Neal A. Halsey, MD
Institute for Vaccine Safety, Johns Hopkins Univ.
Claire Hannan, MPH
Association of Immunization Managers
Carol E. Hayes, CNML, MN, MPH
American College of Nurse-Midwives
Gregory James, DO, MPH, FACOPF
American Osteopathic Association
Samuel L. Katz, MD
Pediatric Infectious Diseases Society
Elyse Oshen Kharbanda, MD, MPH
Society for Adolescent Health and Medicine
Marie-Michele Leger, MPH, PA-C
American Academy of Physician Assistants
Harold S. Margolis, MD
Nat’l Ctr. for Emerg., & Zoonotic Inf. Diseases, CDC
Martin G. Myers, MD
National Network for Immunization Information
Kathleen M. Neuzil, MD, MPH
American College of Physicians
Paul A. Offit, MD
Vaccine Education Ctr., Children’s Hosp. of Phila.
Walter A. Orenstein, MD
Emory Vaccine Center, Emory University
Mitchel C. Rothholz, RPh, MBA
American Pharmacists Association
Thomas N. Saari, MD
American Academy of Pediatrics
William Schaffner, MD
Infectious Diseases Society of America
Anne Schuchat, MD
Nat’l Ctr. for Immun. & Resp. Diseases, CDC
Rhoda Sperling, MD
Amer. College of Obstetricians & Gynecologists
Thomas E. Slevin, RN, PhD
American Nurses Association
Kathryn L. Talkington, MPAff
Assn. of State & Territorial Health Officials
Ann S. Taub, MA, CPNP
National Assn. of Pediatric Nurse Practitioners
John W. Ward, MD
Division of Viral Hepatitis, NCHSTP, CDC
Patricia N. Whitley-Williams, MD, MPH
American College of Nurse-Midwives
Richard K. Zimmerman, MD, MPH
Institute for Vaccine Safety, Johns Hopkins Univ.
Coleman I. Smith, MD
Minnesota Gastroenterology, Minneapolis, MN
Bruce Gellin, MD, MPH
National Vaccine Program Office, DHHS
Mark A. Kane, MD, MPH
Consultant, Seattle, WA
Edgar K. Marcuse, MD, MPH
Alaska Native Medical Center, Anchorage, AK
Brian J. McMahon, MD
National Immunization Program, CDC
Paul A. Offit, MD
Vaxconsult.com
Gregory A. Poland, MD
University of Washington School of Medicine
Walter A. Orenstein, MD
National Network for Immunization Information
Ann S. Taub, MA, CPNP
National Assn. of Pediatric Nurse Practitioners
John W. Ward, MD
Division of Viral Hepatitis, NCHSTP, CDC
Patricia N. Whitley-Williams, MD, MPH
American College of Nurse-Midwives
Richard K. Zimmerman, MD, MPH
Institute for Vaccine Safety, Johns Hopkins Univ.

Individuals
Hie-Won L. Hann, MD
Jefferson Medical College, Philadelphia, PA
Mark A. Kane, MD, MPH
Consultant, Seattle, WA
Edgar K. Marcuse, MD, MPH
University of Washington School of Medicine
Brian J. McMahon, MD
Alaska Native Medical Center, Anchorage, AK
Stanley A. Plotkin, MD
Vaxconsult.com
Gregory A. Poland, MD
Mayo Clinic, Rochester, MN
Sarah Jane Schwarzenberg, MD
University of Minnesota
Coleman I. Smith, MD
Minnesota Gastroenterology, Minneapolis, MN
Richard K. Zimmerman, MD, MPH
University of Pittsburgh

Vaccinate Adults! • February 2013 • Immunization Action Coalition • (651) 647-9009 • www.immunize.org • www.vaccineinformation.org
Vaccine Highlights

Recommendations, schedules, and more

Editor's note: The information in Vaccine Highlights is current as of February 20, 2013.

The next ACIP meetings

A committee of 15 national experts, the Advisory Committee on Immunization Practices (ACIP) advises CDC on the appropriate use of vaccines. ACIP meets three times a year in Atlanta; meetings are open to the public. Upcoming meetings will be held on June 19–20 and Oct. 23–24. For more information, visit www.cdc.gov/vaccines/recs/acip.

ACIP periodically issues public health recommendations on the use of vaccines. Clinicians who vaccinate should have a current set for reference. Published in the Morbidity and Mortality Weekly Report (MMWR), ACIP recommendations are easily available. Here are sources:

• Download them from links on IAC’s website: www.immunize.org/acip.
• Download them from CDC’s website: www.cdc.gov/vaccines/pub/us-2014-pub09-15a.html.

CDC vaccine news

On Jan. 28, CDC published “Recommended Immunization Schedules for Persons Aged 0 Through 18 years and Adults Aged 19 Years and Older — United States, 2013.” The adult schedule is issued jointly by ACIP, AAFP, ACOG, ACP, and ACNMA. The child and teen schedule is issued jointly by ACIP, AAP, and AAFP. For the adult schedule, go to www.cdc.gov/vaccines/schedules/hcp/adult.html. For the child schedule, go to www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html.

Pertussis vaccine news

On Dec. 6, CDC posted “ACIP Provisional Updated Recommendations on Use of Tdap Vaccine for Pregnant Women” on its website. The recommendations advise prenatal care providers to administer a dose of Tdap during each pregnancy irrespective of the patient’s prior history of receiving Tdap. It is anticipated that CDC will release the final updated recommendations in the Feb. 22 issue of MMWR. To access the new recommendations, visit www.cdc.gov/vaccines/pubs/ACIP-list.htm.

MMR vaccine news

On Dec. 6, CDC posted “ACIP Provisional Recommendations: Prevention of Measles, Rubella, Congenital Rubella Syndrome (CRS), and Mumps” on its website. The provisional recommendations have new information regarding (1) the definition of evidence of immunity to measles, rubella, and mumps, (2) the use of immune globulin for measles post-exposure prophylaxis, and (3) the use of MMR vaccine in people who are HIV-infected. Access provisional recommendations at www.cdc.gov/vaccines/recs/provisional/default.htm.

Influenza vaccine news

On Jan. 16, FDA issued a press release announcing it had approved the use of the first influenza vaccine produced using a novel manufacturing technology (Flublok, Protein Sciences Corp). To read the press release, go to www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm335891.htm?source=govdelivery.

On Dec. 14, FDA approved a request by GlaxoSmithKline to supplement its biologics license application for Fluarix influenza virus vaccine to include a quadrivalent formulation for use in people age 3 years and older. To access the package insert, go to www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM220624.pdf.

On Nov. 20, FDA issued a press release announcing that it had approved the use of the first influenza vaccine produced using cultured animal cells (Flucelvax; Novartis Vaccines and Diagnostics GmbH). For the press release, go to www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm328982.htm.

CDC resource news

On Nov. 27, CDC posted its highly informative Vaccine Storage & Handling Toolkit on its website. It includes information on the following: (1) points to consider in selecting, maintaining, and using vaccine storage units and thermometers; (2) consistent maintenance of the cold chain; (3) routine storage and handling practices; (4) inventory management; and (5) emergency procedures for protecting vaccine inventories. The toolkit web page offers related resources such as training materials, slide sets, and other useful items. To access the toolkit web page, go to www.cdc.gov/vaccines/recs/storage/toolkit.

Vaccine locator

HealthMap Vaccine Finder lets members of the public use their zip codes to find providers who administer any of the following 11 adult vaccines: (1) hepatitis A, (2) hepatitis B, (3) HPV, (4) influenza, (5) MMR, (6) meningococcal, (7) pneumococcal, (8) Td, (9) Tdap, (10) varicella, and (11) zoster. Access HealthMap Vaccine Finder at http://vaccine.healthmap.org.

New and updated VISs

The use of most Vaccine Information Statements (VISs) is mandated by federal law. Listed below are the dates of the most current VISs. Check your stock of VISs against this list. If you have outdated VISs, print current ones from IAC’s website at www.immunize.org/vis. You’ll find VISs in more than 30 languages.

- DTaP/DT/DTP … 5/17/07 MMR …………. 5/2/10
- Hepatitis A … 10/25/11 PCV13 …………. 4/16/10
- Hepatitis B … 2/2/12 PPSV …………. 10/6/09
- Hib …………… 12/16/08 Polio …………… 11/8/08
- HPV (Cervarix) … 5/3/11 Babies …………. 10/6/09
- HPV (Gardasil) … 2/22/12 Rotavirus ……. 12/6/10
- Influenza (LAIV) … 7/2/12 Shingles …………. 10/6/09
- Influenza (TIV) … 7/2/12 Td/Tdap …………. 1/24/12
- Japan. enceph. 12/7/11 Typhoid …………… 5/29/12
- Meningococcal 10/14/11 Varicella …………. 3/13/08
- MMR …………. 4/20/12 Yellow fever ……… 3/30/11

Multi-vaccine VIS ………… 11/16/12

For a ready-to-print version of this table for posting in your practice, go to www.immunize.org/catg.d/p2029.pdf.

Subscribe to IAC Express!

www.immunize.org/subscribe

Get weekly updates on vaccine information while it’s still news!

All the news we publish in “Vaccine Highlights” will be sent by email to you every Tuesday. Free!

To sign up, visit www.immunize.org/subscribe

At the same time, you’ll be able to sign up to receive other free IAC publications!
of the combination unit, it is important that you not store vaccines directly under the vent coming from the freezer and that you add water bottles to the refrigerator to absorb cold air blown in from the freezer. This will reduce the risk of vaccines becoming too cold.

**What temperature is considered a temperature excursion on refrigerated vaccine? Frozen vaccine?**

Any temperature readings outside the ranges noted below are considered temperature excursions.

- For refrigerated vaccines, the minimum temperature is 35°F (2°C), and the maximum is 46°F (8°C).
- For frozen vaccines, the minimum temperature is -58°F (-50°C), and the maximum is 5°F (-15°C).

If there is a question about whether a vaccine has been exposed to a temperature excursion, label the vaccines “DO NOT USE” and store them under appropriate conditions, separate from other vaccines. Then, contact the vaccine manufacturer for further guidance. If you are a VFC provider, contact either the vaccine manufacturer and/or your state or local immunization program as directed by the VFC Program in your area.

**I keep hearing about changes to vaccine storage and handling recommendations. Why is CDC making these changes? And how can I make sure I am up to date with all the newest information?**

Good questions! The why behind these changes has two parts. First, it has become increasingly apparent to CDC and state health departments that improper vaccine storage and handling is a big problem, leading to a huge waste of product, time, and money, and more importantly, to unprotected people. Second, improved technology (e.g., digital data loggers) provides tools that uncover and measure problems and also prevent them.

As far as how to keep up, on November 27, 2012, CDC released its updated Vaccine Storage and Handling Toolkit at [www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf](http://www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf) and posted it on CDC’s Vaccine Storage and Handling Toolkit web section at [www.cdc.gov/vaccines/recs/storage/toolkit](http://www.cdc.gov/vaccines/recs/storage/toolkit). The Vaccine Storage and Handling Toolkit is based on the recommendations of ACIP, equipment manufacturers’ product information, and studies from the National Institute for Scientific Technology. The toolkit outlines best practice strategies and recommendations on the following topics:

- Equipment considerations for storage units and thermometers
- Maintenance of the cold chain
- Routine storage and handling practices
- Inventory management
- Emergency procedures for protecting vaccine inventories

Every vaccine provider should print out this document and read and reread it carefully. CDC has provided an overview of the new information as a separate item at [www.cdc.gov/vaccines/recs/storage/interim-storage-handling.pdf](http://www.cdc.gov/vaccines/recs/storage/interim-storage-handling.pdf), as well as a set of FAQs about the new recommendations at [www.cdc.gov/vaccines/recs/storage/interim-faq-storage-handling.pdf](http://www.cdc.gov/vaccines/recs/storage/interim-faq-storage-handling.pdf).

---

**Vaccinate Adults correction policy**

If you find an error, please notify us immediately by sending an email message to admin@immunize.org. We publish notification of significant errors in our email announcement service, IAC Express. Be sure you’re signed up for this service. To subscribe, visit [www.immunize.org/subscribe](http://www.immunize.org/subscribe).

---

**IAC Welcomes Dr. Litjen (L.J) Tan as Chief Strategy Officer**

The Immunization Action Coalition (IAC) is pleased to announce that Litjen (L.J) Tan, MS, PhD, has come on board as its chief strategy officer. In this capacity, Dr. Tan will expand the already considerable range of projects that make IAC a national leader in immunization education and policy. He will also lead IAC’s strategic planning, which is aimed at moving the nation’s immunization rates to the next level, across the age span.

In speaking about Dr. Tan, Dr. Deborah L. Wexler, executive director of IAC, said, “L.J is a world-class leader in public health and an absolutely unique talent. His accomplishments are already tremendous; for example, he co-founded two marvelous national summits that have brought hundreds of immunization leaders together as partners in unprecedented ways. We are thrilled to be working with L.J in expanding and improving the nation’s immunization services and policies.”

Prior to joining IAC, Dr. Tan was the director of medicine and public health at the American Medical Association (AMA), a position he held since 2008. From 1997 to 2008, he was the AMA’s director of infectious disease, immunology, and molecular medicine.

Dr. Tan is a voting member of the Department of Health and Human Services’ National Vaccine Advisory Committee, where he served on the adult immunization, vaccine safety, and healthcare worker immunization working groups, and is currently chair of the immunization infrastructure working group. He also served for more than ten years as the AMA’s liaison to the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices, where he currently serves on the influenza, pneumococcal, zoster, and adult immunization working groups.

He co-founded and currently co-chairs the National Adult Immunization Summit and the National Influenza Vaccine Summit. He serves or has served on the steering committees of the 317 Coalition, the National Network for Immunization Information, and the National Viral Hepatitis Roundtable and on the IAC scientific advisory board. In 2007, he founded the National Immunization Congress and organized its 2007 and 2010 meetings.

A skilled and sought-after speaker, Dr. Tan has been invited to address international, national, and state immunization audiences on issues ranging from vaccine financing to risk management in vaccine safety to emerging infectious diseases. He serves or has served on a host of expert and technical advisory panels, including panels for the Centers for Medicare and Medicaid Services, The Joint Commission, and the Centers for Disease Control and Prevention. In addition, he is the author or coauthor of many peer-reviewed articles and abstracts. During his tenure at the AMA, he wrote numerous scientific reports to guide the association’s policies on a diverse range of public health topics.

Dr. Tan has received several awards for his advocacy work and most recently was awarded the American Pharmacists Association’s national Friend of Pharmacy Award. As a part-time faculty member at the Institute for Science Education and Science Communication, Columbia College, Chicago, he received the 2000 Excellence in Teaching Award.

Dr. Tan’s photograph has been added to IAC’s staff web page at [www.immunize.org/aboutus/iacstaff.asp](http://www.immunize.org/aboutus/iacstaff.asp).
### Influenza

**Inactivated Influenza Vaccine (IV)**  
*Give IM or intradermally*

**Live attenuated influenza vaccine (LAIV)**  
*Give intranasally*

**Summary of Recommendations for Adult Immunization (Age 19 years & older)**  
*(Page 1 of 4)*

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccine administration (any vaccine can be given with another)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Inactivated Influenza Vaccine (IV) | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
- Vaccination is recommended for all adults. (This includes healthy adults age 19–49yrs without risk factors.)  
- LAIV is approved only for healthy nonpregnant people age 2–49yrs.  
- Adults age 18 through 64yrs may be given any intramuscular IV product or, alternatively, the intradermal IV product (Fluzone Intradermal).  
- Adults age 65yrs and older may be given standard-dose IV or, alternatively, high-dose IV (Fluzone High-Dose).  
**Note:** Healthcare personnel who care for severely immunocompromised people (i.e., those who require care in a protected environment) should receive IV rather than LAIV. For information on other contraindications and precautions to LAIV, see far right column. | • Give 1 dose every year in the fall or winter.  
• Begin vaccination services as soon as vaccine is available and continue until the supply is depleted.  
• 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.  
• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. | • Previous anaphylactic reaction to this vaccine, to any of its components, including egg protein.  
• 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). For adults who exercise only hives with exposure to eggs, give IV with additional safety precautions as found in the 2012 ACIP influenza recommendations, pages 613–618.* |
- People age 65yrs and older.  
- 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 candidates for or recipients of cochlear implants and people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).  
- Those at highest risk of serious pneumococcal infection, including people who  
  - Have anatomic or functional asplenia, including sickle cell disease.  
  - Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome.  
  - Are receiving immunosuppressive chemotherapy (including corticosteroids).  
  - Have received an organ or bone marrow transplant. | • Give 1 dose if unvaccinated or if previous vaccination history is unknown.  
• Give a 1-time revaccination to people  
  - Age 65yrs and older if 1st dose was given prior to age 65yrs and 5yrs have elapsed since dose #1.  
  - Age 19 through 64yrs who are 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) and 5yrs have elapsed since dose #1.  
• Give 1 dose of PCV13 to people age 19yrs and older at highest risk of serious pneumococcal infection (see column to left), and to those who have CSF leaks, or are candidates for or recipient of cochlear implants. If previously vaccinated with PPSV, give PCV13 at least 12m following PPSV; if not previously vaccinated with PPSV, give PCV13 first, followed by PPSV in 8wks. | Previous anaphylactic reaction to this vaccine, including (for PCV13) to any diphtheria toxoid-containing vaccine, or to any of its components. |
- People age 65yrs and older.  
- 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 candidates for or recipients of cochlear implants and people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).  
- Those at highest risk of serious pneumococcal infection, including people who  
  - Have anatomic or functional asplenia, including sickle cell disease.  
  - Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome.  
  - Are receiving immunosuppressive chemotherapy (including corticosteroids).  
  - Have received an organ or bone marrow transplant. | • Give 1 dose if unvaccinated or if previous vaccination history is unknown.  
• Give a 1-time revaccination to people  
  - Age 65yrs and older if 1st dose was given prior to age 65yrs and 5yrs have elapsed since dose #1.  
  - Age 19 through 64yrs who are 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) and 5yrs have elapsed since dose #1.  
• Give 1 dose of PCV13 to people age 19yrs and older at highest risk of serious pneumococcal infection (see column to left), and to those who have CSF leaks, or are candidates for or recipient of cochlear implants. If previously vaccinated with PPSV, give PCV13 at least 12m following PPSV; if not previously vaccinated with PPSV, give PCV13 first, followed by PPSV in 8wks. | Previous anaphylactic reaction to this vaccine, including (for PCV13) to any diphtheria toxoid-containing vaccine, or to any of its components. |

*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC’s website at www.cdc.gov/vaccines/pubs/ACIP-list.htm or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acia.  
This table is revised periodically. Visit IAC’s website at www.immunize.org/adultrules to make sure you have the most current version.*
### Summary of Recommendations for Adult Immunization (Age 19 years & older)

**Vaccine name and route**

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccine administration (any vaccine can be given with another)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
</tr>
</thead>
</table>
| **MMR** *(Measles, mumps, rubella)*  
*Give SC* | • For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• People born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if they have no laboratory evidence of immunity to each of the 3 diseases or documentation of a dose given on or after the first birthday.  
• 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.  
• 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.  
• Women of childbearing age who do not have acceptable evidence of rubella immunity or vaccination. | • Give 1 or 2 doses (see criteria in 1st and 2nd bullets in box to left).  
• If dose #2 is recommended, give it no sooner than 4wks after dose #1.  
• If a pregnant woman is found to be rubella susceptible, give 1 dose of MMR postpartum.  
• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.  
• Within 72hrs of measles exposure, give 1 dose as postexposure prophylaxis to susceptible adults.  
Note: Routine post-vaccination serologic testing is not recommended. | • Previous anaphylactic reaction to this vaccine or to any of its components.  
• Pregnancy or possibility of pregnancy within 4wks.  
• Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy; or severely symptomatic HIV).  
Note: 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) for 6 months.*  
**Contraindications**  
**Precautions**  
• Moderate or severe acute illness.  
• If blood, plasma, and/or immune globulin were given in past 11m, see ACIP’s General Recommendations on Immunization* regarding time to wait before vaccinating.  
• History of thrombocytopenia or thrombocytopenic purpura.  
Note: If TST (tuberculosis skin test) and MMR are both needed but not given on same day, delay TST for 4–6wks after MMR. |
| **Varicella** *(chickenpox)*  
*(Var)*  
*Give SC* | • For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• All adults without evidence of immunity.  
• Note: 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 or confirmation of disease; and/or birth in the U.S. before 1980, with the exceptions that follow.  
- Healthcare personnel 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 4–8wks later.  
- 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. | • Give 2 doses.  
• Dose #2 is given 4–8wks after dose #1.  
• If dose #2 is delayed, do not repeat dose #1. Just give dose #2.  
• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.  
• May use as postexposure prophylaxis if given within 5d.  
Note: Routine post-vaccination serologic testing is not recommended. | |  
| **Zoster** *(shingles)*  
*(HZV)*  
*Give SC* | • People age 60yrs and older. | • Give 1-time dose if unvaccinated, regardless of previous history of herpes zoster (shingles) or chickenpox.  
• If 2 or more of the following live virus vaccines are to be given—MMR, Var, HZV and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. | |  

*February 2013*
<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccine administration (any vaccine can be given with another)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
</tr>
</thead>
</table>
| **Hepatitis A** (HepA) | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• All people who want to be protected from hepatitis A virus (HAV) infection and lack a specific risk factor.  
• People who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.  
• 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.  
• 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.  
• 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. | • Give 2 doses, spaced 6–12m apart.  
• If dose #2 is delayed, do not repeat dose #1. Just give dose #2. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precaution**  
Moderate or severe acute illness. |
| **Hepatitis B** (HepB) | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• All adults who want to be protected from hepatitis B virus infection and lack a specific risk factor.  
• 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; people seeking STD evaluation or treatment; hemodialysis patients and those with renal disease that may result in dialysis; diabetics younger than age 60yrs (diabetics age 60yrs and older may be vaccinated at the clinician’s discretion [see ACIP recommendations*]); 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; certain international travelers; and people with chronic liver disease.  
**Note:** 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. | Give 3 doses on a 0, 1, 6m schedule.  
• Alternative timing options for vaccination include 0, 2, 4m; 0, 1, 4m; and 0, 1, 2, 12m (Engerix brand only).  
• 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.  
• Give adults on hemodialysis or with other immunocompromising conditions 1 dose of 40µg/mL (Recombivax HB) at 0, 1, 6m or 2 doses of 20 µg/mL (Engerix-B) given simultaneously at 0, 1, 2, 6m.  
**Schedule for those who have fallen behind:** If the series is delayed between doses, DO NOT start the series over. Continue from where you left off. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precaution**  
Moderate or severe acute illness. |
• Not routinely recommended for U.S. residents age 18yrs and older.  
**Note:** 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. | • Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precautions**  
• Moderate or severe acute illness.  
• Pregnancy. |
# Summary of Recommendations for Adult Immunization (Age 19 years & older)

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccine administration (any vaccine can be given with another)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
</tr>
</thead>
</table>
| **Human papillomavirus (HPV)** (HPV2, Cervarix) (HPV4, Gardasil) **Give IM** | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• All previously unvaccinated women through age 26yrs and men through age 21yrs.  
• All previously unvaccinated men through age 26yrs who 1) have sex with men or 2) are immunocompromised as a result of infection (including HIV), disease, or medications or who lack either of the preceding risk factors but want to be vaccinated. | • Give 3 doses on a 0, 2, 6m schedule. Use either HPV2 or HPV4 for women, and only HPV4 for men.  
• 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. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precautions**  
• Moderate or severe acute illness.  
• Pregnancy. |
| **Meningococcal conjugate vaccine, quadrivalent (MCV4)** Menactra, Menveo **Give IM** | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• People with anatomic or functional asplenia or persistent complement component deficiency.  
• 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).  
• Microbiologists routinely exposed to isolates of *N. meningitidis*.  
• First year college students through age 21yrs who live in residence halls; see 5th bullet in the box to the right for details. | • Give 2 initial doses of MCV4 separated by 2m to adults 55yrs and younger with risk factors listed in 1st bullet in column to left or if vaccinating adults with HIV infection in this age group. Give 1 dose of MPSV4 to adults 56yrs and older with risk factors.  
• Give 1 initial dose to all other adults with risk factors (see 2nd–4th bullets in column to left).  
• Give booster doses every 5yrs to adults with continuing risk (see the 1st–3rd bullets in column to left for listings of people with possible continuing risk).  
• 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.  
• For first year college students age 19–21yrs living in residence halls, give 1 initial dose if unvaccinated and give booster dose if most recent dose was given when younger than age 16yrs. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precaution**  
• Moderate or severe acute illness. |
| **Meningococcal polysaccharide vaccine (MPSV4)** Menomune **Give SC** | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• Adults who have not already received Tdap.  
• Healthcare personnel of all ages.  
• Give Tdap to pregnant women during each pregnancy (preferred during 27–36 weeks’ gestation), regardless of number of years since prior Td or Tdap. | • For people who are unvaccinated or behind, complete the primary Td series (spaced at 0, 1–2m, 6–12m intervals); substitute a one-time dose of Tdap for one of the doses in the series, preferably the first.  
• Give Td booster every 10yrs after the primary series has been completed.  
• Tdap should be given regardless of interval since previous Td. | **Contraindications**  
• Previous anaphylactic reaction to this vaccine or to any of its components.  
• For Tdap only, history of encephalopathy not attributable to an identifiable cause, within 7d following DTP/DTaP, or Tdap.  
**Precautions**  
• Moderate or severe acute illness.  
• Guillain-Barré syndrome within 6wks following previous dose of tetanus toxoid-containing vaccine.  
• History of arthus reaction following a prior dose of tetanus- or diphtheria-toxoid-containing vaccine (including MCV4); defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine.  
• For Tdap only, progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized. |
| **Tdap, Td (Tetanus, diphtheria, acellular pertussis) **Give IM** | For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at www.immunize.org/catg.d/p2010.pdf.  
• All people who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine.  
• A booster dose of Td or Tdap may be needed for wound management, so consult ACIP recommendations.*  
**For Tdap only:**  
• Adults who have not already received Tdap.  
• Healthcare personnel of all ages.  
• Give Tdap to pregnant women during each pregnancy (preferred during 27–36 weeks’ gestation), regardless of number of years since prior Td or Tdap. | • For people who are unvaccinated or behind, complete the primary Td series (spaced at 0, 1–2m, 6–12m intervals); substitute a one-time dose of Tdap for one of the doses in the series, preferably the first.  
• Give Td booster every 10yrs after the primary series has been completed.  
• Tdap should be given regardless of interval since previous Td. | **Contraindications**  
• Previous anaphylactic reaction to this vaccine or to any of its components.  
• For Tdap only, history of encephalopathy not attributable to an identifiable cause, within 7d following DTP/DTaP, or Tdap.  
**Precautions**  
• Moderate or severe acute illness.  
• Guillain-Barré syndrome within 6wks following previous dose of tetanus toxoid-containing vaccine.  
• History of arthus reaction following a prior dose of tetanus- or diphtheria-toxoid-containing vaccine (including MCV4); defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine.  
• For Tdap only, progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized. |

*Using tetanus toxoid (TT) instead of Tdap or Td is not recommended.
**Pneumococcal Vaccines — CDC answers your questions**

Experts from the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention answer your questions about pneumococcal polysaccharide (PPSV23) and pneumococcal conjugate (PCV13) vaccines.

**How serious is pneumococcal disease?**

Pneumococcal disease is a serious disease that causes much sickness and death. In fact, it kills more people in the United States each year than all other vaccine-preventable diseases combined. It is estimated that in the United States in 2007, more than 40,000 cases and more than 4,000 deaths occurred from invasive pneumococcal diseases (bacteremia and meningitis). More than half of the cases occurred in adults who were recommended to receive pneumococcal vaccine. Children younger than age 5 and adults older than 65 have the highest incidence of serious disease.

Case-fatality rates are highest for pneumococcal meningitis and bacteremia, and the highest mortality occurs among the elderly and patients who have underlying medical conditions. Despite appropriate antimicrobial therapy and intensive medical care, the overall case-fatality rate for pneumococcal bacteremia is about 20% among adults. Among elderly patients, the rate may be as high as 60%.

**Who is recommended to receive pneumococcal polysaccharide vaccine (PPSV23)?**

PPSV23 is recommended for anyone who meets any of the criteria below:

- Age 65 years and older
- Age 2 through 64 years with any of the following conditions
  1. cigarette smokers age 19 years and older
  2. alcoholism
  3. chronic liver disease, cirrhosis
  4. chronic cardiovascular disease, excluding hypertension (e.g., congestive heart failure, cardiomyopathies)
  5. chronic pulmonary disease (including COPD and emphysema, and for adults age 19 years and older, asthma)
  6. diabetes mellitus
  7. candidate for or recipient of cochlear implant
  8. cerebrospinal fluid (CSF) leak
  9. functional or anatomic asplenia (e.g., sickle cell disease, splenectomy)
  10. immunocompromising conditions (e.g., HIV infection, leukemia, congenital immunodeficiency, Hodgkin’s disease, lymphoma, multiple myeloma, generalized malignancy, iatrogenic immunosuppression, solid organ transplant, and multiple myeloma)
  11. solid organ transplantation; for bone marrow transplantation, see www.cdc.gov/vaccines/pubs/hemato-cell-transp.htm
  12. chronic renal failure or nephrotic syndrome

**Could you briefly summarize the revaccination recommendations for PPSV23?**

Children and adults younger than age 65 who are at highest risk for serious pneumococcal infection or likely to have a rapid decline in antibody levels (see categories 9 through 12 in previous answer) should get 2 doses of PPSV5 5 years apart, with a third dose after they turn age 65 (if at least 5 years have passed since the last dose). Patients with no risk factors should get 1 dose at age 65. Thus, depending on risk and age at vaccination, a person age 65 or older may have received 1, 2, or 3 doses of PPSV.

**What are the recommendations for routinely administering PCV13 to children?**

Give infants a primary series of PCV13 at age 2, 4, and 6 months. Boost at age 12 through 15 months. For catch-up vaccination, give PCV13 to healthy children through age 59 months and give PCV13 to children through age 71 months who have certain underlying medical conditions. For information on underlying medical conditions, see next question and answer.

**Which underlying medical conditions indicate that an older child or teen should receive PCV13?**

PCV13 vaccination is recommended for unvaccinated children age 2 through 71 months (6 years) who are in categories 4–12 in the numbered list to the left. Consider vaccination for children age 6 through 18 years who are in categories 8–12.

**Which adults are recommended to receive a dose of PCV13 vaccine?**

Adults age 19 years and older who have not previously received PCV13 and who have the conditions specified below should receive a PCV13 dose at the next vaccination opportunity.

- Immunocompromising conditions (e.g., congenital or acquired immunodeficiency, HIV, chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin’s disease, generalized malignancy, iatrogenic immunosuppression, solid organ transplant, and multiple myeloma)
- Functional or anatomic asplenia (e.g., sickle cell disease and other hemoglobinopathies and congenital and acquired asplenia)
- Cerebrospinal fluid (CSF) leak
- Cochlear implants

**What dosing intervals should be observed when giving PCV13 and PPSV23 to patients (children and adults) who are recommended to receive both vaccines?**

Give PCV13 first and give PPSV23 8 weeks later. If the patient has already received PPSV23, wait 1 year before giving PCV13 to avoid interference between the 2 vaccines.

**If patients who are in a recommended risk group for PPSV23 or PCV13 aren’t sure if they have already received these vaccines, should healthcare providers vaccinate them?**

Yes. If patients do not have a documented vaccination history and their records are not readily obtainable, you should administer the recommended doses. Extra doses will not harm the patient.

**When should I vaccinate a child or adult who is planning to have either a cochlear implant or elective splenectomy?**

If possible, administer the appropriate vaccine prior to the splenectomy or cochlear implant so that the person planning to have the procedure has antibody to pneumococci at the time of the surgery. If the procedure is done on an emergency basis, vaccinate as soon as possible according to the routine schedule. Administer a dose of PPSV23 to all patients no sooner than 8 weeks (minimum interval) from the previous dose of PCV13.

**If a patient has had laboratory-confirmed pneumococcal pneumonia, does he or she still need to be vaccinated with PCV13 and/or PPSV23?**

Yes. More than 90 known serotypes of pneumococcus exist (23 serotypes are in PPSV23 and 13 serotypes are in PCV13). Infection with one serotype does not necessarily produce immunity to other serotypes. As a result, patients who are candidates for vaccination should be vaccinated even if they have had one or more episodes of invasive pneumococcal disease.

For complete information on CDC’s recommendations for the use of pneumococcal vaccines, go to www.immunize.org/acip

For a table view of the recommendations, see “Pneumococcal Vaccination Recommendations for Children and Adults by Age and/or Risk Factor” at www.immunize.org/catg.d/p2019.pdf.
## Pneumococcal Vaccination Recommendations for Children¹ and Adults by Age and/or Risk Factor

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>Underlying medical condition or other risk factor</th>
<th>Recommendations for Vaccination with Pneumococcal Conjugate Vaccine (PCV13)</th>
<th>Recommendations for Vaccination with Pneumococcal polysaccharide vaccine (PPSV23)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Administer doses needed to complete schedule to children through age 71 months</td>
<td>Administer 1 dose to PCV13-naïve children age 6–18 years</td>
</tr>
<tr>
<td>Immuno-competent</td>
<td>Healthy adult, non-smoker</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Chronic heart disease²</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Chronic lung disease³</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Cerebrospinal fluid leak</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Cochlear implant</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Alcoholism</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Chronic liver disease, cirrhosis</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Cigarette smoking (&gt;19 yrs)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Functional or anatomic asplenia</td>
<td>Sickle cell disease/other hemoglobinopathy</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Congenital or acquired asplenia</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td>Immuno-compromised</td>
<td>Congenital or acquired immunodeficiency⁴</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>HIV</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Chronic renal failure</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Nephrotic syndrome</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Leukemia</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Lymphoma</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Hodgkin disease</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Generalized malignancy</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Iatrogenic immunosuppression⁵</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Solid organ transplant</td>
<td>X, X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Multiple myeloma</td>
<td>X, X</td>
<td>X</td>
</tr>
</tbody>
</table>

3. Including asthma in children if treated with high-dose oral corticosteroid therapy, including asthma in adults.
4. Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease).
5. Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy.

---

Technical content reviewed by the Centers for Disease Control and Prevention

Immunization Action Coalition
1573 Selby Avenue • St. Paul, MN 55104 • 651 647-9009 • www.immunize.org • www.vaccineinformation.org

Do I Need Any Vaccinations Today? – A questionnaire for adults

☑ Do I Need Any Vaccinations Today?

This questionnaire will help you and your healthcare provider determine if you need any vaccinations today. Please check the boxes that apply to you.

Influenza vaccination
☐ I haven’t had my annual influenza vaccination yet this season – so I need it now.

Pneumococcal vaccination (PPSV23, PCV13)
☐ I am 65 or older. I either never received a pneumococcal shot or I don’t remember receiving a shot.
☐ I am 65 or older and received 1 or 2 doses of pneumococcal vaccine when I was younger than 65. It has either been 5 years or more since my last shot or I don’t remember how long it has been.
☐ I am younger than 65. I have not been vaccinated against pneumococcal disease, and I am in one of the following risk groups:
  ☐ I smoke cigarettes.
  ☐ I have heart, lung (including asthma), liver, kidney, or sickle cell disease; diabetes; or alcoholism.
  ☐ I have a weakened immune system due to cancer, Hodgkin’s disease, leukemia, lymphoma, multiple myeloma, kidney failure, HIV/AIDS; or I am receiving radiation therapy; or I am on medication that suppresses my immune system.
  ☐ I had an organ or bone marrow transplant.
  ☐ I had my spleen removed, had or will have a cochlear implant, or have leaking spinal fluid.
  ☐ I live in a nursing home or other long-term care facility, and I have never had a pneumococcal shot.

Tetanus, diphtheria, and pertussis (whooping cough)-containing vaccination (e.g., DTP, DTaP, Tdap, or Td)
☐ I either never received a dose of Tdap vaccine or I don’t remember if I have.
☐ I have not yet received at least 3 tetanus- and diphtheria-containing shots.
☐ I have received at least 3 tetanus- and diphtheria-containing shots in my lifetime, but I believe it’s been 10 years or more since I received my last shot.
☐ I am in my late second or third trimester of my pregnancy and haven’t had a dose of Tdap vaccine during this pregnancy.

Measles-Mumps-Rubella (MMR) vaccination
☐ I was born in 1957 or later and either never received an MMR shot or I don’t remember receiving a shot.
☐ I am a healthcare worker, and I have no laboratory evidence of immunity to measles, mumps, or rubella.
☐ I received 1 dose of MMR vaccine, but I don’t remember receiving 2 doses.
☐ I was born in 1957 or later. I received only 1 MMR shot, and I am in one of the following groups:
  ☐ I am entering college or a post-high school educational institution.
  ☐ I am planning to travel internationally.

Hepatitis A vaccination
☐ I smoking cigarettes.
☐ I have heart, lung (including asthma), liver, kidney, or sickle cell disease; diabetes; or alcoholism.
☐ I have a weakened immune system due to cancer, Hodgkin’s disease, leukemia, lymphoma, multiple myeloma, kidney failure, HIV/AIDS; or I am receiving radiation therapy; or I am on medication that suppresses my immune system.
☐ I had an organ or bone marrow transplant.
☐ I had my spleen removed, had or will have a cochlear implant, or have leaking spinal fluid.
☐ I live in a nursing home or other long-term care facility, and I have never had a pneumococcal shot.

Human papillomavirus (HPV) vaccination
☐ I am 18 or younger and haven’t completed the series of hepatitis B shots.
☐ I want to be vaccinated to avoid getting hepatitis B and spreading it to others.
☐ I was vaccinated with hepatitis A vaccine in the past. I either never received the second shot or don’t remember if I completed the series.
☐ I want to be vaccinated to avoid getting hepatitis A and spreading it to others.

Chickenpox (varicella) vaccination
☐ I was vaccinated 5 or more years ago and continue to be at risk for meningococcal disease because I am in one of the following risk groups:
  ☐ I am an immigrant, or my parents are immigrant.
  ☐ I am sexually active and am not in a long-term, mutually monogamous relationship.
  ☐ I travel or plan to travel in countries where meningococcal disease is common.1, 2
  ☐ I provide direct services to people with development disabilities.
  ☐ I am a microbiologist routinely exposed to isolates of Neisseria meningitidis.
  ☐ I am traveling to an area of the world where meningococcal disease is common.1
  ☐ I am 21 or younger. I haven’t had a meningococcal shot since my 16th birthday, and I am (or will be)
  ☐ I was vaccinated with meningococcal conjugate vaccine in the past. I either never received the second shot or don’t remember if I completed the series.
  ☐ I want to be vaccinated to avoid meningococcal disease.
  ☐ I am a man 22 through 26 years. I haven’t completed a 3-dose series of HPV shots, and I am in one of the following groups:
    ☐ I have a weakened immune system as a result of infection (including HIV), disease, or medications.
    ☐ I want to be protected from HPV.
  ☐ I am a man 21 or younger and haven’t completed a series of HPV shots.
  ☐ I am a woman 26 or younger and haven’t completed a 3-dose series of HPV shots.

Do I Need Any Vaccines Today?

1. South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, and Canada, Australia, and New Zealand.
2. Countries where hepatitis A is common include all countries other than the U.S., Western Europe, Canada, Japan, Australia, and New Zealand.

Infectious disease prevention

- I have chronic liver disease.
- I have chronic liver disease.

Note: this does not apply to students whose only risk factor is attending college, living in a residence hall.

Technical content reviewed by the Centers for Disease Control and Prevention
1537 Selby Avenue • Saint Paul, Minnesota 55104 • 651-647-9009
www.immunize.org • www.vaccineinformation.org

www.immunize.org/catg.d/p4036.pdf

www.immunize.org
pregnant woman receive Tdap vaccine during each pregnancy, even if the woman had received Tdap previously. The optimal time to administer Tdap is between 27 and 36 weeks’ gestation. Vaccination during this time maximizes maternal antibody response and passive antibody transfer to the infant. Women who have never received Tdap and who do not receive it during pregnancy should receive it immediately postpartum.

When a woman gets Tdap during pregnancy, maternal pertussis antibodies transfer to the newborn, likely protecting the baby against pertussis in early life, before the baby is old enough to have received at least 3 doses of DTaP. Tdap also protects the mother, making it less likely that she will get infected with pertussis during or after pregnancy and thus less likely that she will transmit it to her infant.

The related provisional recommendations for the use of Tdap in pregnancy were published on December 6, 2012. CDC anticipates releasing the final updated recommendations in the Feb. 22 issue of MMWR. To access the new recommendations, visit www.cdc.gov/vaccines/pubs/ACIP-list.htm.

If a woman did not receive Tdap during pregnancy, and it is uncertain whether she received a dose of Tdap prior to her pregnancy, should she receive a dose of Tdap postpartum?

Yes. If there is no written documentation that she received a dose of Tdap prior to or during pregnancy, a dose of Tdap should be administered to her immediately postpartum.

How soon after taking prednisone for an asthma attack can a person receive a flu shot?

Steroid treatment is not a contraindication for vaccination with inactivated influenza vaccine. As this vaccine is not a live virus vaccine, you can (and should) give it to people who are immunosuppressed, although the patient’s immune response may not be optimal. Immunosuppression (e.g., from certain steroid treatments) is a concern only when administering live virus vaccines.

Is fainting after the first or second dose of HPV vaccine a contraindication to administering subsequent doses?

No. Fainting is not a contraindication to administering a subsequent dose of any vaccine. Fainting after vaccination is fairly common in adolescence. Providers should prepare for the possibility by having patients sit or lie down when receiving the vaccine and observing patients for 15 minutes after vaccination. For more information on syncope and vaccination, visit the CDC website at www.cdc.gov/vaccinesafety/Concerns/syncope_faq.html.

Some single-dose pre-loaded vaccines come with an air pocket in the syringe chamber. Do we need to expel the air pocket before vaccinating?

No. You do not need to get rid of the air pocket. The air will be absorbed. This is not true for syringes that you fill yourself; you should expel air bubbles from these syringes prior to vaccination to the extent that you can readily do so.* (See editor’s clarification.)

Is it recommended to use a new alcohol swab to cleanse the skin before administering a vaccine, or can we swab the skin with the same alcohol swab that we used to wipe off the stopper on the vial?

You should use separate alcohol wipes to clean the vial top and the patient’s skin.

To receive “Ask the Experts” Q&As by email, subscribe to the Immunization Action Coalition’s news service, IAC Express.

Special “Ask the Experts” issues are published five times per year. Subscribe at www.immunize.org/subscribe.

To find more than a thousand “Ask the Experts” Q&As answered by CDC experts, go to www.immunize.org/askexperts.

---

**BOOKS YOU’LL LOVE!**

**Epidemiology and Prevention of Vaccine Preventable Diseases**
12th edition
Edited by W.A. Atkinson, C. Wolfe, J. Hamborsky
www.cdc.gov/vaccines/pubs/pinkbook

**The Vaccine Handbook: A Practical Guide for Clinicians**
2012 Edition
by Gary S. Marshall, MD
www.immunize.org/vaccine-handbook
Order Essential Immunization Resources from IAC

Immunization record cards offer healthcare professionals a way to help patients maintain a permanent record of their vaccinations. Patient-held cards are handy for patients when they enter daycare or school, change healthcare providers, or travel abroad.

We offer three record cards: adult, child & teen, and lifetime. Each is designed for a specific age group and lists all vaccines recommended for people in the age group. Sized to fit in a wallet, each is brightly colored to stand out and is printed on durable rip-, smudge-, and water-proof paper.

To order record cards 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.

It’s convenient to shop IAC online at www.immunize.org/shop

Order Essential Immunization Resources

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Description</th>
<th>Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient Immunization Record Cards — for adults, children &amp; teens, and for a lifetime! (all are wallet-sized; details p. 3; call for discounts on bulk orders)</td>
<td>$</td>
</tr>
<tr>
<td>250 cards/box</td>
<td>Adult immunization record cards</td>
<td>$</td>
</tr>
<tr>
<td>200 cards/box</td>
<td>Child/teen immunization record cards</td>
<td>$</td>
</tr>
<tr>
<td>100 cards/box</td>
<td>Lifetime immunization record cards</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>DVD – Immunization Techniques: Best Practices with Infants, Children, and Adults (details p. 3; call for discounts on bulk orders)</td>
<td>$</td>
</tr>
<tr>
<td>1-9 copies</td>
<td>Immunization Techniques: Best Practices with Children/Teens/Adults</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>Total for Purchases</td>
<td>$</td>
</tr>
</tbody>
</table>

Make a Charitable Contribution

I am a ❑ new ❑ renewing contributor.

Here is my contribution:

❑ $25  ❑ $50  ❑ $75  ❑ $100  ❑ $125
❑ $150  ❑ $200  ❑ $250  ❑ other: $_______

IAC is a 501(c)(3) charitable organization and your contribution is tax deductible to the fullest extent of the law.

Total for Purchases and Contribution $ ____

How to Place an Order

By Credit Card: Order easily online at our secure shopping cart at www.immunize.org/shop.

By Check, Purchase Order, or Credit Card: Print out this page, fill out the necessary information, and

Fax the page to: (651) 647-9131 or

Mail the page to: Immunization Action Coalition
1573 Selby Avenue, Suite 234
St. Paul, MN 55104

Our federal ID# is 41-1768237.

For Questions or International Orders: Contact us by phone at (651) 647-9009 or email admininfo@immunize.org

Thank you for your support of the Immunization Action Coalition. We depend on you!

Method of payment: ❑ Check enclosed (payable to Immunization Action Coalition) ❑ Purchase order # ________

❑ Visa ❑ Mastercard ❑ Am. Express ❑ Discover

Card # ________

Expiration Date mo/yr ________ CV Code #* ________

*The CV Code is the Credit Verification Code, the additional 3- or 4-digit number on your credit card.

Name/Title

Organization

Shipping address [Check one: This is my ❑ organization address ❑ home address]

City/State/Zip

Telephone

Email address