

# NEEDLE TIPS

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## Last Print Edition of *Needle Tips*

### Future Issues Will Be Available Only Online Sign Up Now at [www.immunize.org/subscribe](http://www.immunize.org/subscribe)

Dear Friends of the Immunization Action Coalition,

This issue of *Needle Tips* is the last one that the Immunization Action Coalition (IAC) will be sending to you through the U.S. mail.

The Centers for Disease Control and Prevention (CDC), which has always subsidized the printing and mailing of *Needle Tips*, is now encouraging electronic publishing in place of print communications. As a result, IAC is no longer able to distribute hard-copy issues of *Needle Tips*.

There is, however, good news! *Needle Tips* will be produced just as it has always been—twice a year, in the same layout, and with CDC review. It will feature the same valuable, reliable content, like "Ask the Experts" and ready-to-copy print materials for staff and patients. It will continue to be available, as it always has been, on our website at [www.immunize.org/nt](http://www.immunize.org/nt).

To make sure you don't miss the next online issue of *Needle Tips*, you must sign up now at [www.immunize.org/subscribe](http://www.immunize.org/subscribe). If you sign up, we will notify you as soon as our next issue is placed online. Even if you have signed up recently for some or all of our publications, signing up again will ensure that you're on our master contact list.

At the same time you sign up to be notified of the next issue of *Needle Tips*, you should also consider signing up for *IAC Express*, our weekly email vaccine news bulletin. It supplements *Needle Tips* with updated information such as hot-topic "Ask the Experts" questions and answers. Please share this message with your co-workers who are interested in immunization, and encourage them to sign up as well.

Finally, I want to assure you that future issues of *Needle Tips* will continue to contain all or more of the critical immunization information you've come to rely on. As always, I would love to hear from you about how IAC can better support your efforts to save lives through immunization.

*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?

- 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))

### Immunization questions

**If the vaccine expiration date is written as month/year, how do we know the exact date of expiration?**

Vaccine may be used through the last day of the month indicated on the expiration date. After that, do not use it. Monitor your vaccine supply carefully so that vaccines do not expire.

**If we gave a dose of expired vaccine in error, what is the proper timing for repeating the dose?**

The dose should be repeated. If the expired dose is a live virus vaccine, you should wait at least 4 weeks after the expired dose was given before repeating it. If the expired dose is *not* a live vaccine, the dose should be repeated as soon as possible.

**Where can I find Vaccine Information Statement (VIS) translations in Spanish and other languages? We have many patients from outside the U.S. in our practice.**

You're in luck. The Immunization Action Coalition (IAC) has dozens of translations of most VISs at [www.immunize.org/vis](http://www.immunize.org/vis).

**I'm unclear about when to use the multi-vaccine VIS versus the individual VISs.**

The multi-vaccine VIS is a 4-page alternative VIS that you can use in place of the individual VISs for any or all of the 6 vaccines routinely given to infants (i.e., DTaP, IPV, Hib, PCV, HepB, and rotavirus). It is not designed to be used with adolescents or adults (risk factors that apply only to older persons are not included on this VIS). Use of this VIS

*(continued on page 18)*

## Needle Tips

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

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IAC, a 501(c)(3) charitable organization, publishes practical immunization information for health professionals to help increase immunization rates and prevent disease.

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# IAC website [www.immunize.org](http://www.immunize.org) adds new sections: “Print Materials” and “Vaccine Concerns”

The Immunization Action Coalition’s (IAC) website for healthcare professionals now includes two newly designed web sections: Print Materials and Vaccine Concerns. The two represent the most recent additions to IAC’s comprehensive website redesign project. The project’s twin goals are to give website users an easy way to grasp the breadth of resources available on the website and to speed users’ path to them.

## Free Print Materials for staff and patients

The Print Materials web section ([www.immunize.org/printmaterials](http://www.immunize.org/printmaterials)) gives users free access to approximately 250 educational immunization materials for

**Free print materials for  
staff and patients**  
[www.immunize.org/printmaterials](http://www.immunize.org/printmaterials)

healthcare professionals and the public. All are in ready-to-copy (PDF) format and have been reviewed for technical accuracy by immunization experts at the Centers for Disease Control and Prevention (CDC).

Structured to give users quick, easy access to IAC’s print resources, the Print Materials section is organized in several ways. For users who want a fast route to our most popular print materials, IAC has developed a “Top 20” list of items that are most frequently downloaded by visitors to our website. In addition, print materials are organized by topic (e.g., vaccine recommendations, vaccine handling and storage), type (e.g., standing orders, Q&As about diseases and vaccines), item number, and language, as well as alphabetically by title.

IAC’s collection of print materials in languages other than English continues to grow—it now includes more than 80 translations. Visit our newly redesigned trans-

**Free print materials in 12 languages**  
[www.immunize.org/translations](http://www.immunize.org/translations)

lations section at [www.immunize.org/translations](http://www.immunize.org/translations), where you will find some of our most popular print materials in the following languages: Arabic, Chinese, French, Hmong, Japanese, Korean, Russian, Spanish, Tagalog, Turkish, and Vietnamese.

**DISCLAIMER:** *Needle Tips* 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 in Atlanta, Georgia, and some information is supplied by third-party sources. The Immunization Action Coalition (IAC) has used its best efforts to accurately publish all of this information, but IAC cannot guarantee that the original information as supplied by others is correct or complete, or that it has been accurately published. Some 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 not now outdated, inaccurate, or incomplete. IAC cannot guarantee that reliance on the information in this issue will cause no injury. 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 Saint Paul, Minnesota.

## Responding to Vaccine Concerns

IAC’s Vaccine Concerns web section ([www.immunize.org/concerns](http://www.immunize.org/concerns)) provides healthcare professionals with background information and practical resources that will help them discuss immunization with concerned parents and patients. The section is divided into two main parts: (1) specific topics that parents and patients have questions about and (2) resources for communicating about vaccines.

The part devoted to specific topics includes resources on vaccine adjuvants, alternative medicine, autism, MMR, multiple injections, the Hannah Poling case, religious concerns, and thimerosal. The part devoted to communicating about vaccines gives healthcare professionals the resources they need to make a compelling case about the safety of vaccines, the impor-

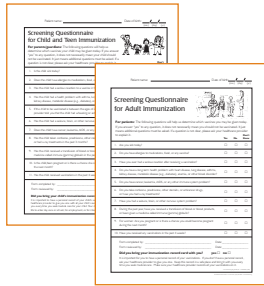
**Responding to vaccine concerns?**  
**Download free resources at**  
[www.immunize.org/concerns](http://www.immunize.org/concerns)

tance of vaccination, and the potentially grave consequences of failure to vaccinate. In addition, it includes practical tips for talking with vaccine-hesitant patients and parents.

We also suggest you subscribe to our weekly email news service, *IAC Express*. Once you complete the sign-up form at [www.immunize.org/subscribe](http://www.immunize.org/subscribe), you’ll start receiving FREE email announcements about important developments related to immunization, as well as updates on IAC’s latest redesigned web sections.



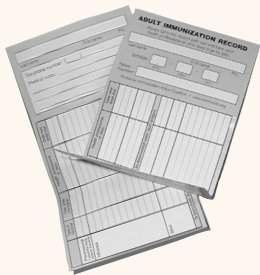
## Two screening questionnaires for vaccine contraindications: Now in convenient tear-off pads of 100 sheets!



Save valuable staff time and make sure your patients are fully screened by using these simple 1-page questionnaires (one for child/teen immunization, another for adults). Patients respond to questions by checking off “yes” and “no” boxes while waiting to be seen. Staff reviews answers during the visit. These pads are priced at \$16 per 100-sheet pad. Prices drop to \$12 each for 2 pads, \$11 each for 3 pads, \$10 each for 4 pads. Keep pads at the receptionist’s desk, the nurses’ station, and in every exam room. To view the pads or for more details, visit IAC’s website at [www.immunize.org/shop](http://www.immunize.org/shop).

To order, visit [www.immunize.org/shop](http://www.immunize.org/shop) or use the order form on page 23.  
For 5 or more pads, contact us for discount pricing: [admininfo@immunize.org](mailto:admininfo@immunize.org)

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



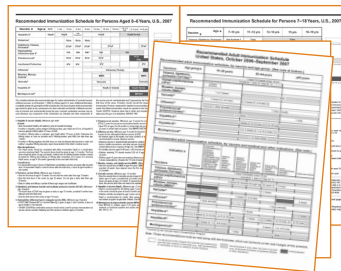
Now you can give any patient a permanent vaccination record card designed specifically for their age group: child & teen, adult, or lifetime. The three cards list all vaccines recommended for each age. The cards are printed on durable rip-, smudge-, and water-proof paper. Wallet-sized when folded, the 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 23.  
To receive sample cards, email your request to [admininfo@immunize.org](mailto:admininfo@immunize.org)

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

Here are the ACIP/AAP/AAFP-approved immunization schedule for people ages 0–18 years and the ACIP/AAFP/ACOG/ACP-approved schedule for adults. Both are laminated for heavy-duty use, complete with essential footnotes, and printed in color for easy reading. The cost is \$10 for each schedule and only \$6.50 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 23.  
For 20 or more copies, contact us for discount pricing: [admininfo@immunize.org](mailto:admininfo@immunize.org)

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# Vaccine Highlights

## Recommendations, schedules, and more

Editor's note: The information in "Vaccine Highlights" is current as of November 19, 2008.

### 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. The next meetings will be held on Feb. 25–26, 2009, and June 24–25, 2009. For more information, including details about registration procedures, visit [www.cdc.gov/vaccines/recs/acip](http://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 readily available. Here are sources:

- Download them from links on IAC's website: [www.immunize.org/acip](http://www.immunize.org/acip).
- Download them from CDC's website: [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).
- Call the CDC-INFO Contact Center: (800) CDC-INFO ([800] 232-4636).

### Recently published ACIP recommendations:

- "Prevention and Control of Influenza" (8/8/08)
- "Prevention of Herpes Zoster" (6/6/08)
- "Prevention of Pertussis, Tetanus, and Diphtheria Among Pregnant and Postpartum Women and Their Infants" (5/30/08)
- "Human Rabies Prevention—United States, 2008" (5/23/08)

### Influenza vaccine news

On Aug. 8, CDC published "Prevention and Control of Influenza." It includes two updates of note: (1) a new recommendation that all children ages 5–18 years should receive annual influenza vaccine (previously, the recommendation was to routinely

vaccinate children ages 6–59 months) and (2) a new recommendation permitting the expanded use of live attenuated influenza vaccine (LAIV; FluMist®) to include healthy children ages 2 through 4 years who have not had a wheezing episode during the past 12 months. Previously, the recommendation included healthy non-pregnant people ages 5–49 years. To read the complete recommendations, go to [www.cdc.gov/mmwr/pdf/rr/rr5707.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr5707.pdf).

On Sept. 8, the American Academy of Pediatrics released its influenza vaccine policy statement for 2008–09. It is available at <http://pediatrics.aappublications.org/cgi/reprint/peds.2008-2449v1>.

CDC released its 2008–09 VIS for trivalent inactivated influenza vaccine (TIV; injectable) and its VIS for live attenuated influenza vaccine (LAIV; FluMist). To access the VIS for TIV, go to [www.immunize.org/vis/2flu.pdf](http://www.immunize.org/vis/2flu.pdf). For the VIS for LAIV, go to [www.immunize.org/vis/liveflu.pdf](http://www.immunize.org/vis/liveflu.pdf).

The Department of Health and Human Services has created an online toolkit of resources that promote influenza vaccination of healthcare personnel. Resources were selected based on their proven success and novel approaches to prevention of and education about influenza and influenza vaccination. To access the online toolkit of resources, go to [www.hhs.gov/ophsp/programs/initiatives/vacctoolkit](http://www.hhs.gov/ophsp/programs/initiatives/vacctoolkit).

### Rotavirus vaccine news

On April 3, FDA licensed Rotarix® (GlaxoSmith-Kline), a live, oral rotavirus vaccine for use in preventing rotavirus gastroenteritis in infants and children. Rotarix is licensed for use as a 2-dose series in infants at ages 2 and 4 months. To view the package insert, go to [www.fda.gov/cber/label/rotarixLB.pdf](http://www.fda.gov/cber/label/rotarixLB.pdf).

On June 25, ACIP voted on new recommendations for the use of rotavirus vaccine for the prevention of rotavirus gastroenteritis among infants and children. CDC posted these provisional recommendations at [www.cdc.gov/vaccines/recs/provisional/downloads/roto-7-1-08-508.pdf](http://www.cdc.gov/vaccines/recs/provisional/downloads/roto-7-1-08-508.pdf).

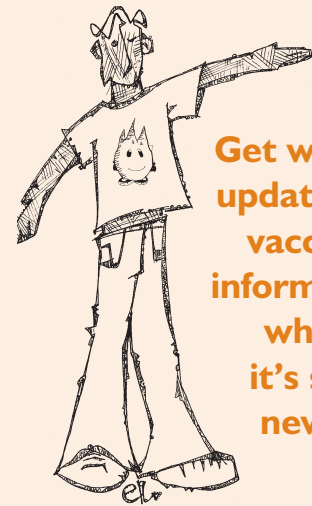
On Aug. 28, CDC issued a revised version of its interim rotavirus VIS. To access it, go to [www.immunize.org/vis/rota\\_06.pdf](http://www.immunize.org/vis/rota_06.pdf).

On Sept. 18, CDC updated its interim version of the pediatric multi-vaccine VIS to include information on Rotarix vaccine. To access it, go to [www.immunize.org/vis/vis\\_multi1.pdf](http://www.immunize.org/vis/vis_multi1.pdf).

### Combination vaccine news

On June 20, FDA licensed Pentacel® (sanofi pasteur) a DTaP-IPV-Hib combination vaccine. It is approved for use as a 4-dose series in infants and children ages

### Subscribe to IAC Express!



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

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[www.immunize.org/subscribe](http://www.immunize.org/subscribe)

At the same time, you'll be able to sign up to receive other free IAC publications!

2, 4, 6, and 15–18 months. To view the package insert, go to [www.fda.gov/cber/label/pentacelLB.pdf](http://www.fda.gov/cber/label/pentacelLB.pdf). At its June meeting, ACIP voted to recommend the use of Pentacel in infants and children.

On Oct. 3, CDC published "Licensure of a Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus, and Haemophilus b Conjugate Vaccine and Guidance for Use in Infants and Children." It includes information on indications, guidance for use, and special considerations for Pentacel. To read the document, go to [www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a5.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a5.htm).

In August, CDC added a document titled "Guidance on the use of Pentacel and Pediarix®" to its website. It discusses the use of Pentacel during the current Hib vaccine shortage and presents schedules for using Pentacel, Pediarix, and single-antigen vaccines. To access it, go to [www.cdc.gov/vaccines/pubs/downloads/pentacel-guidance.pdf](http://www.cdc.gov/vaccines/pubs/downloads/pentacel-guidance.pdf).

On June 24, FDA licensed Kinrix® (GSK), a DTaP-IPV combination vaccine. It is approved for use as the fifth dose of DTaP and the fourth dose of IPV in children ages 4–6 years. To view the package insert, go to [www.fda.gov/cber/label/kinrixLB.pdf](http://www.fda.gov/cber/label/kinrixLB.pdf). At its June meeting, ACIP voted to recommend the use of Kinrix in children.

What's the difference between a man and a running dog?



door Warden-Mann

One wears trousers, the other pants.

On Oct. 3, CDC published “Licensure of a Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed and Inactivated Poliovirus Vaccine and Guidance for Use as a Booster Dose.” It includes information on indications and guidance for use for Kinrix. To read the document, go to [www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a4.htm).

On May 30, CDC published new recommendations on the use of Tdap vaccine titled “Prevention of Pertussis, Tetanus, and Diphtheria Among Pregnant and Postpartum Women and Their Infants.” To download a copy of the complete recommendations, go to [www.cdc.gov/mmwr/PDF/rr/rr5704.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5704.pdf).

### Pneumococcal vaccine news

On April 4, CDC published “Updated Recommendation from ACIP for Use of 7-Valent Pneumococcal Conjugate Vaccine (PCV7) in Children Aged 24–59 Months Who Are Not Completely Vaccinated.” To read the complete updated recommendation, go to [www.cdc.gov/mmwr/preview/mmwrhtml/mm5713a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5713a4.htm).

At its October 2008 meeting, ACIP voted to recommend the use of PPSV vaccine in persons age 19–64 years who smoke cigarettes. At its June 2008 meeting, ACIP voted to recommend the use of PPSV vaccine for persons age 19–64 years with asthma. Previously, asthmatics were specifically excluded from the recommendation to vaccinate persons with chronic lung disease. These new recommendations for use of PPSV will be published as part of the 2009 U.S. Recommended Adult Immunization Schedule, which will appear in *MMWR* in January 2009.

### Hib vaccine news

On Oct. 17, Merck notified CDC that it projects that its Hib-containing vaccines, PedvaxHIB® and Comvax®, will be restored to the market in mid-2009. Previously, Merck anticipated these vaccines would return in fourth quarter 2008. CDC is not changing the current shortage recommendations for Hib vaccination. CDC will provide updates as more information becomes available from Merck. For updated information, go to [www.cdc.gov/vaccines/vac-gen/shortages](http://www.cdc.gov/vaccines/vac-gen/shortages).

### HPV vaccine news

On Sept. 12, FDA approved the expanded indication of Gardasil® (Merck) vaccine for use in girls and women ages 9–26 in preventing certain vulvar and vaginal cancers caused by human papillomavirus (HPV). FDA originally approved the vaccine in 2006 for the prevention of cervical cancer and genital warts caused by HPV. To view the package insert, go to [www.fda.gov/cber/label/gardasilLB.pdf](http://www.fda.gov/cber/label/gardasilLB.pdf).

On July 22, CDC and FDA websites added a resource that addresses questions raised by patients,

parents, and health professionals about the safety of the HPV vaccine Gardasil. Titled “Information from FDA and CDC on Gardasil and its Safety,” the resource concludes that after ongoing assessment, CDC and FDA continue to find the vaccine safe and effective and CDC continues to recommend its use. To access the resource, go to [www.cdc.gov/vaccinesafety/vaers/FDA\\_and\\_CDC\\_Statement.htm](http://www.cdc.gov/vaccinesafety/vaers/FDA_and_CDC_Statement.htm).

On July 17, the CDC website posted “HPV Vaccine—Questions & Answers for the Public about the Safety and Effectiveness of HPV Vaccine.” To access it, go to [www.cdc.gov/vaccines/vpd-vac/hpv/hpv-vacsafe-effic.htm](http://www.cdc.gov/vaccines/vpd-vac/hpv/hpv-vacsafe-effic.htm).

On March 5, CDC issued a correction to the HPV vaccine entry on the “Catch-up Immunization Schedule.” It was changed to indicate that the minimum interval between administering the first and third doses of HPV vaccine must be at least 24 weeks. To access the corrected catch-up schedule, go to [www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#catchup](http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#catchup).

### MMR and Var vaccine news

On March 14, *MMWR* published updated ACIP recommendations regarding the use of MMRV vaccine. It states that ACIP voted to no longer express preference for MMRV vaccine over separate injections of equivalent component vaccines (i.e., MMR vaccine and varicella vaccine). CDC, FDA, and ACIP continue to evaluate these preliminary findings and will communicate updates and implement further necessary actions based on this evaluation. Availability of MMRV vaccine is currently limited in the U.S.; MMRV vaccine is not expected to be widely available before 2009. To access the *MMWR* article, go to [www.cdc.gov/mmwr/preview/mmwrhtml/mm5710a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5710a3.htm).

On March 13, CDC released interim editions of the VISs for MMR vaccine and varicella vaccine. To access the interim VIS for MMR vaccine, go to [www.immunize.org/vis/mmr03.pdf](http://www.immunize.org/vis/mmr03.pdf). To access the interim VIS for varicella vaccine, go to [www.immunize.org/vis/varic07.pdf](http://www.immunize.org/vis/varic07.pdf).

### Herpes zoster (shingles) news

On June 6, CDC published its final recommendations titled “Prevention of Herpes Zoster.” Herpes zoster vaccine is recommended for all persons age 60 years and older to prevent shingles. To read the complete recommendations, go to [www.cdc.gov/mmwr/PDF/rr/rr5705.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5705.pdf).

### Rabies vaccine news

On Aug. 22, CDC issued a health update alerting healthcare professionals and the public that the supply of human rabies vaccine is limited, which will affect the availability of vaccine for pre- and post-exposure prophylaxis. For continually updated information, go to [www.cdc.gov/rabies](http://www.cdc.gov/rabies).

On May 23, CDC published its updated recom-

mendations titled “Human Rabies Prevention—U.S., 2008.” To read the complete recommendations, go to [www.cdc.gov/mmwr/PDF/rr/rr5703.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5703.pdf).

### CDC resources

In May, CDC made the professional-education course “Epidemiology and Prevention of Vaccine-Preventable Diseases” available in DVD and web-on-demand formats. For information, go to [www.cdc.gov/vaccines/ed/epivac](http://www.cdc.gov/vaccines/ed/epivac).

In April, CDC posted an updated version of “How to Protect Your Vaccine Supply,” its excellent online toolkit on vaccine storage and handling. To access it, go to [www2a.cdc.gov/vaccines/ed/shtoolkit](http://www2a.cdc.gov/vaccines/ed/shtoolkit).

Published in February, the second printing of the tenth edition of the CDC’s textbook “Epidemiology and Prevention of Vaccine-Preventable Diseases” (the Pink Book) provides health professionals with comprehensive information on vaccine-preventable diseases and vaccines. It is available for downloading at [www.cdc.gov/vaccines/pubs/pinkbook](http://www.cdc.gov/vaccines/pubs/pinkbook). If you prefer to order a bound copy, go to the Public Health Foundation bookstore at <http://bookstore.phf.org> and click on “Immunization” in the left column.

In February, CDC launched a web section to help the public understand the basics of vaccine safety. It has resources to help clinicians address vaccine safety concerns as they come up in the press, as well as resources for counteracting long-standing myths about the dangers of vaccines. To access the web section, go to [www.cdc.gov/vaccinesafety](http://www.cdc.gov/vaccinesafety). ♦

### Current VIS dates

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 one of these sources: CDC’s website at [www.cdc.gov/vaccines/pubs/vis](http://www.cdc.gov/vaccines/pubs/vis) (has VISs in English) or IAC’s website at [www.immunize.org/vis](http://www.immunize.org/vis) (has VISs in more than 30 languages).

DTaP/DT/DTP.....	5/17/07	PCV.....	9/30/02
hepatitis A.....	3/21/06	PPV.....	7/29/97
hepatitis B.....	7/18/07	polio.....	1/1/00
Hib.....	12/16/98	rabies.....	1/12/06
HPV (H. papillomavirus).....	2/2/07	rotavirus.....	8/28/08
influenza (LAIV).....	7/24/08	shingles.....	9/11/06
influenza (TIV).....	7/24/08	Td/Tdap.....	11/18/08
Japan. enceph.....	5/11/05	typhoid.....	5/19/04
meningococcal.....	1/28/08	varicella.....	3/13/08
MMR.....	3/13/08	yellow fever.....	11/9/04

Multi-vaccine VIS ... 9/18/08  
(for 6 vaccines given to infants/children:  
DTaP, IPV, Hib, Hep B, PCV, Rota)

# Need help responding to vaccine-hesitant parents?

Science-based materials are available from these respected organizations

## Vaccine Education Center

### Children's Hospital of Philadelphia

Educational materials can be ordered through the center's website for free or at nominal cost.

Tear sheets – Offered in tear-off pads of 50, these are intended for physicians to hand out to patients. Useful titles for hesitant parents include “Too Many Vaccines?” “Thimerosal,” “Vaccines and Autism,” and “The Facts About Childhood Vaccines.”

Videos – “Vaccines: Separating Fact from Fear” and “Vaccines and Your Baby” come in VHS or DVD format.

You can order any of these, or print your own copies of the tear sheets, at [www.chop.edu/consumer/jsp/division/generic.jsp?id=81902](http://www.chop.edu/consumer/jsp/division/generic.jsp?id=81902).

## Immunization Action Coalition

IAC offers ready-to-print educational pieces that are appropriate for hesitant parents:

“Clear Answers & Smart Advice About Your Baby's Shots,” an excerpt from the popular book “Baby 411” by Dr. Ari Brown  
[www.immunize.org/catg.d/p2068.pdf](http://www.immunize.org/catg.d/p2068.pdf)

“MMR Vaccine Does Not Cause Autism: Examine the Evidence!”  
[www.immunize.org/catg.d/p4026.pdf](http://www.immunize.org/catg.d/p4026.pdf)

“Vaccines Work!” [www.immunize.org/catg.d/p4037.pdf](http://www.immunize.org/catg.d/p4037.pdf)

“What If You Don't Immunize Your Child?”  
[www.immunize.org/catg.d/p4017.pdf](http://www.immunize.org/catg.d/p4017.pdf)

Many other online resources for addressing vaccine concerns are available at [www.immunize.org/concerns](http://www.immunize.org/concerns).

Consider establishing a vaccine policy for your practice. You can download and customize the sample policy located at [www.immunize.org/catg.d/p2067.pdf](http://www.immunize.org/catg.d/p2067.pdf).

## American Academy of Pediatrics

Show hesitant parents how great an impact vaccination has had on child health by printing out the table at [www.cispimmunize.org/fam/ImpactofVaccines.pdf](http://www.cispimmunize.org/fam/ImpactofVaccines.pdf).

Several common objections to vaccination are addressed in this document: [www.cispimmunize.org/pro/pdf/7ParentalConcerns2.pdf](http://www.cispimmunize.org/pro/pdf/7ParentalConcerns2.pdf).

General guidelines for talking to hesitant parents are outlined here: [www.cispimmunize.org/pro/pdf/Vaccine-HesitantParent\\_Final.pdf](http://www.cispimmunize.org/pro/pdf/Vaccine-HesitantParent_Final.pdf).

When parents cannot be convinced, consider using AAP's Refusal to Vaccinate form at [www.cispimmunize.org/pro/pdf/RefusaltoVaccinate\\_revised%204-11-06.pdf](http://www.cispimmunize.org/pro/pdf/RefusaltoVaccinate_revised%204-11-06.pdf).

## Every Child by Two

ECBT's website, [www.ecbt.org](http://www.ecbt.org), focuses on policy-oriented information, such as the economic benefits of immunization.

## National Network for Immunization Information

NNii's website comprehensively covers vaccine issues and concerns. It features a Resource Kit of printable materials available for download at [www.immunizationinfo.org/healthProfessionals/resource\\_kit.cfm](http://www.immunizationinfo.org/healthProfessionals/resource_kit.cfm). The kit contains fact sheets on each of the childhood vaccines, frequently asked questions on topics like vaccine effectiveness and vaccine ingredients, and useful background on topics such as how vaccines are selected for general use and monitored for safety.

## Centers for Disease Control and Prevention

Among CDC's many online immunization resources is the “Parent's Guide to Childhood Immunization,” a 68-page booklet that can be ordered or printed at [www.cdc.gov/vaccines/pubs/parents-guide](http://www.cdc.gov/vaccines/pubs/parents-guide).

Other CDC web pages can be made print-ready by clicking “Printer-Friendly Format” in the top right-hand corner of the page. Here are examples that may help you work with hesitant parents:

“Some Common Misconceptions”  
[www.cdc.gov/vaccines/vac-gen/6mishome.htm](http://www.cdc.gov/vaccines/vac-gen/6mishome.htm)

“The Importance of Childhood Immunization”  
[www.cdc.gov/vaccines/vac-gen/importance.htm](http://www.cdc.gov/vaccines/vac-gen/importance.htm)

“What Would Happen If We Stopped Vaccinations?”  
[www.cdc.gov/vaccines/vac-gen/whatifstop.htm](http://www.cdc.gov/vaccines/vac-gen/whatifstop.htm)

“How Vaccines Are Tested and Monitored”  
[www.cdc.gov/vaccinesafety/basic/safety.htm](http://www.cdc.gov/vaccinesafety/basic/safety.htm)

## Institute for Vaccine Safety Johns Hopkins University

The Institute for Vaccine Safety collects vaccine-specific safety information. Of particular interest is its Components section, which contains tables specifying the contents of various vaccines: [www.vaccinesafety.edu/components.htm](http://www.vaccinesafety.edu/components.htm).

### For parents with concerns about vaccines and autism

AAP has issued a statement that can be printed at [www.aap.org/advocacy/releases/autismparentfacts.htm](http://www.aap.org/advocacy/releases/autismparentfacts.htm). Parents may wish to investigate further at [www.aap.org/healthtopics/Autism.cfm](http://www.aap.org/healthtopics/Autism.cfm). IAC also recommends these books:

*Autism's False Prophets: Bad Science, Risky Medicine, and the Search for a Cure*, by Paul A. Offit, MD

*Unstrange Minds: Remapping the World of Autism*, by Roy Richard Grinker, PhD

Parents may wish to continue looking for information on their own. Give them guidance with the Immunization Action Coalition's “Reliable Sources of Immunization Information: Where to go to find answers!” This one-page guide can be downloaded at [www.immunize.org/catg.d/p4012.pdf](http://www.immunize.org/catg.d/p4012.pdf)

# Sample Vaccine Policy Statement

## Ready for you to adapt for your practice

Use the vaccine policy statement below as is, or modify it to make it into your practice's own strong statement of support for the vital role vaccination plays in safeguarding the health of children. Your practice's clearly expressed commitment to immunization can be powerfully persuasive with parents who are hesitant to have their child vaccinated because of scientifically invalid information they have encountered on the Internet or through the news media. The statement below was developed by clinicians at All Star Pediatrics in Lionville, Pennsylvania, where it is posted in every exam room

and handed to parents at their infant's one-month well-check appointment. The results have been that parents new to All Star Pediatrics know exactly where their doctors stand on immunization, and the families of established patients feel supported in the choice they've made to immunize their children.

The text of the policy statement below is available as a pdf or MS Word document at [www.immunize.org/catg.d/p2067.doc](http://www.immunize.org/catg.d/p2067.doc). You can cut and paste it to make your own vaccine policy statement.

## [Your practice name here] Vaccine Policy Statement

- We firmly believe in the effectiveness of vaccines to prevent serious illness and to save lives.
- We firmly believe in the safety of our vaccines.
- We firmly believe that all children and young adults should receive all of the recommended vaccines according to the schedule published by the Centers for Disease Control and Prevention and the American Academy of Pediatrics.
- We firmly believe, based on all available literature, evidence, and current studies, that vaccines do not cause autism or other developmental disabilities. We firmly believe that thimerosal, a preservative that has been in vaccines for decades and remains in some vaccines, does not cause autism or other developmental disabilities.
- We firmly believe that vaccinating children and young adults may be the single most important health-promoting intervention we perform as health care providers, and that you can perform as parents/caregivers. The recommended vaccines and their schedule given are the results of years and years of scientific study and data gathering on millions of children by thousands of our brightest scientists and physicians.

These things being said, we recognize that there has always been and will likely always be controversy surrounding vaccination. Indeed, Benjamin Franklin, persuaded by his brother, was opposed to smallpox vaccine until scientific data convinced him otherwise. Tragically, he had delayed inoculating his favorite son Franky, who contracted smallpox and died at the age of 4, leaving Ben with a lifetime of guilt and remorse. Quoting Mr. Franklin's autobiography:

*"In 1736, I lost one of my sons, a fine boy of four years old, by the smallpox...I long regretted bitterly, and still regret that I had not given it to him by inoculation. This I mention for the sake of parents who omit that operation, on the supposition that they should never forgive themselves if a child died under it, my example showing that the regret may be the same either way, and that, therefore, the safer should be chosen."*

The vaccine campaign is truly a victim of its own success. It is precisely because vaccines are so effective at preventing illness that we are even discussing whether or not they should be given. Because of vaccines, many of you have never seen a child with polio, tetanus, whooping cough, bacterial meningitis, or even chickenpox, or known a friend or family member whose child died of one of these diseases. Such success can

make us complacent or even lazy about vaccinating. But such an attitude, if it becomes widespread, can only lead to tragic results.

Over the past several years, many people in Europe have chosen not to vaccinate their children with the MMR vaccine after publication of an unfounded suspicion (later retracted) that the vaccine caused autism. As a result of underimmunization, there have been small outbreaks of measles and several deaths from complications of measles in Europe over the past several years.

Furthermore, by not vaccinating your child you are taking selfish advantage of thousands of others who do vaccinate their children, which decreases the likelihood that your child will contract one of these diseases. We feel such an attitude to be self-centered and unacceptable.

We are making you aware of these facts not to scare you or coerce you, but to emphasize the importance of vaccinating your child. We recognize that the choice may be a very emotional one for some parents. We will do everything we can to convince you that vaccinating according to the schedule is the right thing to do. However, **should you have doubts, please discuss these with your health care provider in advance of your visit.** In some cases, we may alter the schedule to accommodate parental concerns or reservations. **Please be advised, however, that delaying or "breaking up the vaccines" to give one or two at a time over two or more visits goes against expert recommendations, and can put your child at risk for serious illness (or even death) and goes against our medical advice as providers at [Your practice name here].** Such additional visits will require additional co-pays on your part. Furthermore, please realize that you will be required to sign a "Refusal to Vaccinate" acknowledgement in the event of lengthy delays.

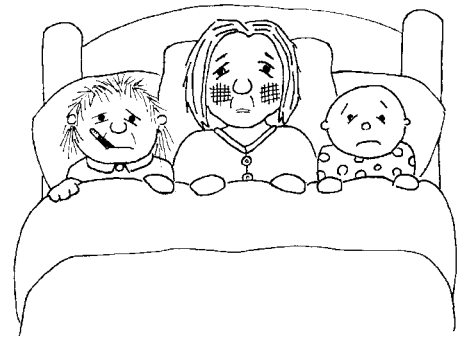
Finally, if you should absolutely refuse to vaccinate your child despite all our efforts, we will ask you to find another health care provider who shares your views. We do not keep a list of such providers, nor would we recommend any such physician. Please recognize that by not vaccinating you are putting your child at unnecessary risk for life-threatening illness and disability, and even death.

As medical professionals, we feel very strongly that vaccinating children on schedule with currently available vaccines is absolutely the right thing to do for all children and young adults. Thank you for your time in reading this policy, and please feel free to discuss any questions or concerns you may have about vaccines with any one of us.

To adapt the vaccine policy statement above for your practice, cut and paste from this MS Word document: [www.immunize.org/catg.d/p2067.doc](http://www.immunize.org/catg.d/p2067.doc)

[www.immunize.org/catg.d/p2067.pdf](http://www.immunize.org/catg.d/p2067.pdf) • Item #P2067 (10/08)

# Don't take chances with your family's health – make sure you all get vaccinated against influenza every year!



## Here's how influenza can hurt your family . . .

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**Influenza can make you, your children, or your parents really sick.**

Influenza usually comes on suddenly. Symptoms can include high fever, chills, headaches, exhaustion, sore throat, cough, and all-over body aches. Some people say, "It felt like a truck hit me!" Symptoms can also be mild. Regardless, when influenza strikes your family, the result is lost time from work and school.

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**Influenza spreads easily from person to person.**

An infected person can spread influenza when they cough, sneeze, or just talk near others. They can also spread it by touching or sneezing on an object that someone else touches later. And, an infected person doesn't have to feel sick to be contagious: they can spread influenza to others when they feel well – before their symptoms have even begun.

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**Influenza and its complications can be so serious that they can put you, your children, or your parents in the hospital – or lead to death.**

Each year, more than 200,000 people are hospitalized in the U.S. from influenza and its complications. And 36,000 die, including many children. The people who have the highest probability of being hospitalized and of dying are infants, young children, older adults, and people of all ages who have medical conditions such as heart or lung disease. But remember, it's not only the youngest, oldest, or sickest who die: every year influenza kills people who were otherwise healthy.

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**Influenza can be a very serious disease for you, your family, and friends – but you can all be protected by getting vaccinated.**

There's no substitute for yearly vaccination in protecting the people you love from influenza. Either type of influenza vaccine (the "shot" or nasal spray) will help keep you and your loved ones safe from a potentially deadly disease. Get vaccinated every year, and make sure your children and your parents are vaccinated, too.

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**Get vaccinated every year! Get your children vaccinated!  
Be sure your parents get vaccinated, too!**



# Influenza education materials for patients & staff

Free and CDC-reviewed, they're ready for you to download, copy, and use!

The collage features the following materials:

- Standing Orders for Administering Influenza Vaccines to Children & Adolescents**: Purpose: To reduce morbidity and mortality from influenza by vaccinating all children and adolescents who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.
- Standing Orders for Administering Influenza Vaccine to Adults**: Purpose: To reduce morbidity and mortality from influenza by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.
- Screening Questionnaire for Injectable Influenza Vaccination**: Includes fields for Patient name and Date of birth.
- Screening Questionnaire for Intranasal Influenza Vaccination**: Includes fields for Patient name and Date of birth.
- First do no harm: Protect patients by making sure all staff receive yearly influenza vaccine!**: A summary of CDC's HICPAC/ACIP recommendations, including sections on 'What's happened?', 'Why is it happening?', 'What should your healthcare facility do to comply?', and 'Practical resources for vaccinating HCP against influenza'.
- Declination of Influenza Vaccination**: A form for documenting vaccine refusal.
- Give these people influenza vaccine!**: A graphic with a checklist of high-risk groups: All children, All adults, Homeless, Hoarding, HIV, Heart disease, High blood pressure, Diabetes, Chronic lung disease, Chronic kidney disease, Chronic liver disease, Chronic neurological conditions, Chronic mental health conditions, Chronic autoimmune conditions, Chronic cancer, Chronic immunosuppression, Chronic use of aspirin, Chronic use of NSAIDs, Chronic use of corticosteroids, Chronic use of biologics, Chronic use of chemotherapy, Chronic use of radiation, Chronic use of immunosuppressive drugs, Chronic use of anti-rejection drugs, Chronic use of anti-infective drugs, Chronic use of anti-epileptic drugs, Chronic use of anti-coagulants, Chronic use of anti-thrombotics, Chronic use of anti-platelet agents, Chronic use of anti-platelet inhibitors, Chronic use of anti-platelet antagonists, Chronic use of anti-platelet agonists, Chronic use of anti-platelet modulators, Chronic use of anti-platelet stabilizers, Chronic use of anti-platelet activators, Chronic use of anti-platelet inhibitors, Chronic use of anti-platelet antagonists, Chronic use of anti-platelet agonists, Chronic use of anti-platelet modulators, Chronic use of anti-platelet stabilizers, Chronic use of anti-platelet activators.
- Influenza: Questions and Answers**: Information about the disease and vaccines.
- Don't take chances with your family's health—make sure you all get vaccinated every year!**: A graphic with a checklist of high-risk groups: All children, All adults, Homeless, Hoarding, HIV, Heart disease, High blood pressure, Diabetes, Chronic lung disease, Chronic kidney disease, Chronic liver disease, Chronic neurological conditions, Chronic mental health conditions, Chronic autoimmune conditions, Chronic cancer, Chronic immunosuppression, Chronic use of aspirin, Chronic use of NSAIDs, Chronic use of corticosteroids, Chronic use of biologics, Chronic use of chemotherapy, Chronic use of radiation, Chronic use of immunosuppressive drugs, Chronic use of anti-rejection drugs, Chronic use of anti-infective drugs, Chronic use of anti-epileptic drugs, Chronic use of anti-coagulants, Chronic use of anti-thrombotics, Chronic use of anti-platelet agents, Chronic use of anti-platelet inhibitors, Chronic use of anti-platelet antagonists, Chronic use of anti-platelet agonists, Chronic use of anti-platelet modulators, Chronic use of anti-platelet stabilizers, Chronic use of anti-platelet activators.
- INACTIVATED INFLUENZA VACCINE**: A graphic with the text 'LIVE, INTRANASAL INFLUENZA VACCINE (WHAT YOU NEED TO KNOW 2008-09)'.
- LIVE, INTRANASAL INFLUENZA VACCINE (WHAT YOU NEED TO KNOW 2008-09)**: A graphic with four numbered sections: 1. Why get vaccinated?, 2. Live, attenuated influenza vaccine - LAIV (nasal spray), 3. Who can get LAIV?, and 4. Some people should not get LAIV.

For 8-1/2" x 11" copies of the pieces above, visit IAC's website: [www.immunize.org](http://www.immunize.org)

1. Standing orders for administering influenza vaccines to children & adolescents: [www.immunize.org/catg.d/p3074a.pdf](http://www.immunize.org/catg.d/p3074a.pdf)
2. Standing orders for administering influenza vaccine to adults: [www.immunize.org/catg.d/p3074.pdf](http://www.immunize.org/catg.d/p3074.pdf)
3. Screening questionnaire for injectable influenza vaccination: [www.immunize.org/catg.d/p4066.pdf](http://www.immunize.org/catg.d/p4066.pdf)
4. Screening questionnaire for intranasal influenza vaccination: [www.immunize.org/catg.d/p4067.pdf](http://www.immunize.org/catg.d/p4067.pdf)
5. First do no harm: Protect patients by making sure all staff receive yearly influenza vaccine: [www.immunize.org/catg.d/p2014.pdf](http://www.immunize.org/catg.d/p2014.pdf)
6. Declination of influenza vaccination (for healthcare worker refusal): [www.immunize.org/catg.d/p4068.pdf](http://www.immunize.org/catg.d/p4068.pdf)
7. Give these people influenza vaccine: [www.immunize.org/catg.d/p2013.pdf](http://www.immunize.org/catg.d/p2013.pdf)
8. Influenza: Questions and Answers: [www.immunize.org/catg.d/p4208.pdf](http://www.immunize.org/catg.d/p4208.pdf)
9. Don't take chances with your family's health—make sure you all get vaccinated against influenza every year! [www.immunize.org/catg.d/p4069.pdf](http://www.immunize.org/catg.d/p4069.pdf)
10. Federally required Vaccine Information Statements in English and other languages: [www.immunize.org/vis](http://www.immunize.org/vis)
  - Inactivated Influenza Vaccine: What you need to know: [www.immunize.org/vis/2flu.pdf](http://www.immunize.org/vis/2flu.pdf)
  - Live, Intranasal Influenza Vaccine: What you need to know: [www.immunize.org/vis/liveflu.pdf](http://www.immunize.org/vis/liveflu.pdf)

# IAC's "Top 20" free print materials for healthcare professionals and patients

Visit [www.immunize.org/printmaterials](http://www.immunize.org/printmaterials) often!

IAC website visitors download the following materials by the thousands each month

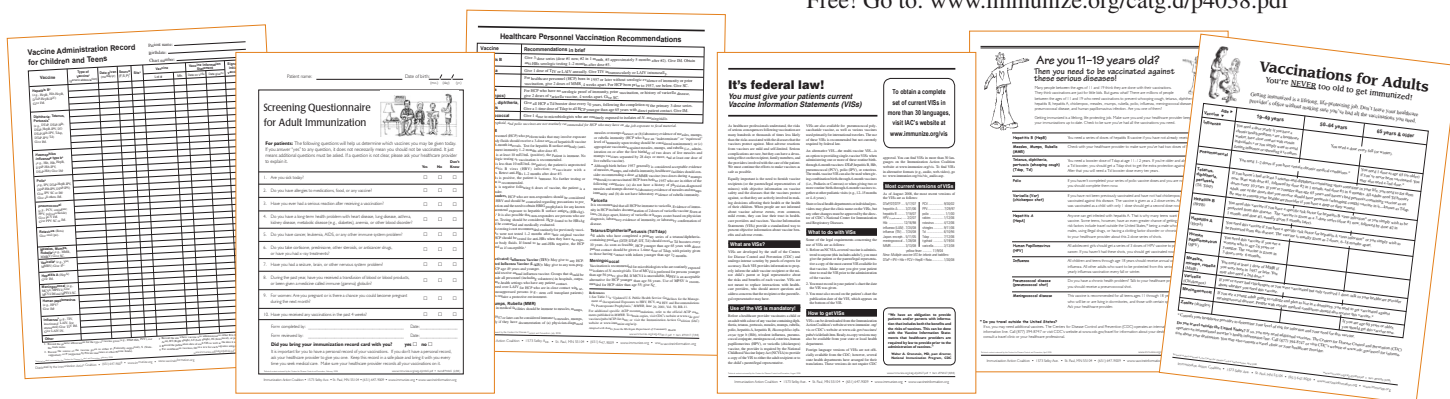
## "Top 10" picks for healthcare professionals

- 1. Summary of recommendations for childhood and adolescent immunization (3 pages)**  
Summarizes hundreds of pages of recommendations for immunizing children and teens  
Free! Go to: [www.immunize.org/catg.d/p2010.pdf](http://www.immunize.org/catg.d/p2010.pdf)
- 2. Summary of recommendations for adult immunization (3 pages)**  
Summarizes hundreds of pages of recommendations for immunizing adults  
Free! Go to: [www.immunize.org/catg.d/p2011.pdf](http://www.immunize.org/catg.d/p2011.pdf)
- 3. Vaccine administration record for children and teens (1 page)**  
Use to record vaccinations for your child and teen patients  
Free! Go to: [www.immunize.org/catg.d/p2022.pdf](http://www.immunize.org/catg.d/p2022.pdf)
- 4. Vaccine administration record for adults (1 page)**  
Use to record vaccinations for your adult patients  
Free! Go to: [www.immunize.org/catg.d/p2023.pdf](http://www.immunize.org/catg.d/p2023.pdf)
- 5. Screening questionnaire for child and teen immunization (2 pages)\***  
Ask patients to fill this out; includes reference sheet for professionals  
Free! Go to: [www.immunize.org/catg.d/p4060.pdf](http://www.immunize.org/catg.d/p4060.pdf)
- 6. Screening questionnaire for adult immunization (2 pages)\***  
Ask patients to fill this out; includes reference sheet for professionals  
Free! Go to: [www.immunize.org/catg.d/p4065.pdf](http://www.immunize.org/catg.d/p4065.pdf)
- 7. Healthcare personnel vaccination recommendations (1 page)**  
Explains which healthcare personnel need vaccinations, when, and why  
Free! Go to: [www.immunize.org/catg.d/p2017.pdf](http://www.immunize.org/catg.d/p2017.pdf)
- 8. How to administer IM and SC injections (2 pages)**  
Refer to this illustrated sheet for information about anatomic site, needle size, and needle insertion  
Free! Go to: [www.immunize.org/catg.d/p2020.pdf](http://www.immunize.org/catg.d/p2020.pdf)
- 9. Administering vaccines: Dose, route, site, and needle size (1 page)**  
Refer to this table when administering IM and SC injections  
Free! Go to: [www.immunize.org/catg.d/p3085.pdf](http://www.immunize.org/catg.d/p3085.pdf)
- 10. Temperature log for vaccines: Fahrenheit (4 pages)**  
Use to record vaccine refrigerator temperatures  
Free! Go to: [www.immunize.org/catg.d/p3039.pdf](http://www.immunize.org/catg.d/p3039.pdf)

\*Translations available at [www.immunize.org/translations](http://www.immunize.org/translations)

## "Top 10" picks for parents, patients, and the public

- 1. Immunizations for babies—A guide for parents (1 page)\***  
This shot schedule includes descriptions of the diseases childhood vaccines protect against  
Free! Go to: [www.immunize.org/catg.d/p4010.pdf](http://www.immunize.org/catg.d/p4010.pdf)
- 2. When do children and teens need vaccinations? (1 page)\***  
This shot schedule includes footnotes that explain variations in the timing of vaccine administration  
Free! Go to: [www.immunize.org/catg.d/p4050.pdf](http://www.immunize.org/catg.d/p4050.pdf)
- 3. Are you 11-19 years old? Then you need to be vaccinated! (1 page)\***  
Tells teens that vaccination is a life-long and life-protecting job; outlines which vaccines they need and when  
Free! Go to: [www.immunize.org/catg.d/p4020.pdf](http://www.immunize.org/catg.d/p4020.pdf)
- 4. Vaccinations for adults—you're never too old to get immunized! (1 page)\***  
Tells adults that vaccination is a life-long and life-protecting job; outlines which vaccines they need and when  
Free! Go to: [www.immunize.org/catg.d/p4030.pdf](http://www.immunize.org/catg.d/p4030.pdf)
- 5. What if you don't immunize your child? (2-page brochure)**  
Explains the serious consequences for the child and community  
Free! Go to: [www.immunize.org/catg.d/p4017.pdf](http://www.immunize.org/catg.d/p4017.pdf)
- 6. After the shots . . . what to do if your child has discomfort (2 pages)\***  
Explains which reactions are normal and which need medical attention; includes dosage information on medications that reduce pain and fever  
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- 7. After the shots . . . (simplified version; 1 page)**  
Explains which reactions are normal and which need medical attention  
Free! Go to: [www.immunize.org/catg.d/p4014.pdf](http://www.immunize.org/catg.d/p4014.pdf)
- 8. MMR vaccine does not cause autism (2 pages)**  
Lists 20-plus studies that refute the connection between MMR and autism  
Free! Go to: [www.immunize.org/catg.d/p4026.pdf](http://www.immunize.org/catg.d/p4026.pdf)
- 9. Thimerosal and autism by Paul A. Offit, MD (2 pages)**  
Summarizes evidence that shows that thimerosal does not cause autism  
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- 10. Vaccine concerns by Paul A. Offit, MD, and Louis M. Bell, MD (10 pages)**  
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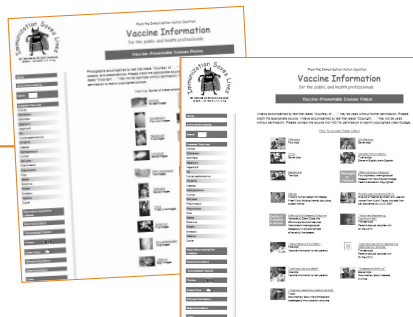


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*The nation's premier source of childhood, teen, and adult immunization information*

Immunization Action Coalition website users visit the following "Top 20" web pages more than 300,000 times each month

- 1. Home page**  
Designed for easy access to a breadth of immunization information  
[www.immunize.org](http://www.immunize.org)
- 2. Vaccine Information Statements (VISs)**  
Listed by vaccine, language, and format; also alphabetically  
[www.immunize.org/vis](http://www.immunize.org/vis)
- 3. Print Materials**  
Approximately 250 free, ready-to-copy English-language materials for healthcare professionals and the public—many also in translation  
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- 4. Standing Orders for Administering Vaccines**  
For administering vaccines to children, teens, and adults  
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- 5. Vaccine Concerns**  
Background information and practical resources for discussing immunization with concerned parents and patients  
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Names and phone numbers for local, state, and territory immunization coordinators  
[www.immunize.org/coordinators](http://www.immunize.org/coordinators)
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- 15. New Releases: Licensures, Recommendations, and Resources**  
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- 16. Vaccines and Vaccine-Preventable Diseases in the News**  
Links to news reports, features, opinion pieces, and editorials that have appeared in the news media  
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- 17. Centers for Disease Control and Prevention (CDC) Immunization Recommendations**  
From CDC's Advisory Committee on Immunization Practices (ACIP)  
[www.immunize.org/acip](http://www.immunize.org/acip)
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- 19. Journal Articles about Immunization**  
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## Summary of Recommendations for Childhood and Adolescent Immunization

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Hepatitis B (HepB)</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Vaccinate all children age 0 through 18yrs.</li> <li>Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at age 1–2m and the final dose at age 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine or up to 3 doses of Comvax (ages 2m, 4m, 12–15m) or Pediarix (ages 2m, 4m, 6m), which may result in giving a total of 4 doses of hepatitis B vaccine.</li> <li><b>If mother is HBsAg-positive:</b> give the newborn HBIG + dose #1 within 12hrs of birth; complete series at age 6m or, if using Comvax, at age 12–15m.</li> <li><b>If mother's HBsAg status is unknown:</b> give the newborn dose #1 within 12hrs of birth. If mother is subsequently found to be HBsAg positive, give infant HBIG within 7d of birth and follow the schedule for infants born to HBsAg-positive mothers.</li> </ul>	<ul style="list-style-type: none"> <li>Do not restart series, no matter how long since previous dose.</li> <li>3-dose series can be started at any age.</li> <li>Minimum spacing between doses: 4wks between #1 and #2, 8wks between #2 and #3, and at least 16wks between #1 and #3 (e.g., 0-, 2-, 4m; 0-, 1-, 4m).</li> </ul> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-top: 10px;"> <p><b>Special Notes on Hepatitis B Vaccine (HepB)</b>  <b>Dosing of HepB:</b> Vaccine brands are interchangeable. For persons age 0 through 19yrs, give 0.5 mL of either Engerix-B or Recombivax HB.  <b>Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs:</b> Give 2 doses Recombivax HB 1.0 mL (adult formulation) spaced 4–6m apart. (Engerix-B is not licensed for a 2-dose schedule.)  <b>For preterm infants:</b> Consult ACIP hepatitis B recommendations (<i>MMWR</i> 2005; 54 [RR-16]).*</p> </div>	<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<b>DTaP, DT (Diphtheria, tetanus, acellular pertussis)</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give to children at ages 2m, 4m, 6m, 15–18m, 4–6yrs.</li> <li>May give dose #1 as early as age 6wks.</li> <li>May give #4 as early as age 12m if 6m have elapsed since #3 and the child is unlikely to return at age 15–18m.</li> <li>Do not give DTaP/DT to children age 7yrs and older.</li> <li>If possible, use the same DTaP product for all doses.</li> </ul>	<ul style="list-style-type: none"> <li>#2 and #3 may be given 4wks after previous dose.</li> <li>#4 may be given 6m after #3.</li> <li>If #4 is given before 4th birthday, wait at least 6m for #5 (age 4–6yrs).</li> <li>If #4 is given after 4th birthday, #5 is not needed.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> <li>For DTaP/Tdap only: encephalopathy within 7d after DTP/DTaP.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>History of Arthus reaction following a prior dose of tetanus- and/or diphtheria-toxoid-containing vaccine, including MCV.</li> </ul>
<b>Td, Tdap (Tetanus, diphtheria, acellular pertussis)</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give 1-time Tdap dose to adolescents age 11–12yrs if 5yrs have elapsed since last dose DTaP; then boost every 10yrs with Td.</li> <li>Give 1-time dose of Tdap to all adolescents who have not received previous Tdap. Special efforts should be made to give Tdap to persons age 11yrs and older who are <ul style="list-style-type: none"> <li>in contact with infants younger than age 12m.</li> <li>healthcare workers with direct patient contact.</li> </ul> </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>	<ul style="list-style-type: none"> <li>If never vaccinated with tetanus- and diphtheria-containing vaccine: give Td dose #1 now, dose #2 4wks later, and dose #3 6m after #2, then give booster every 10yrs. A 1-time Tdap may be substituted for any dose in the series, preferably as dose #1. For persons who previously received a Td booster, an interval of 2yrs or less between Td and Tdap may be used.</li> </ul>	<ul style="list-style-type: none"> <li>Guillain-Barré syndrome within 6wks after previous dose of tetanus toxoid-containing vaccine.</li> <li>For DTaP only: Any of these events following a previous dose of DTP/DTaP: 1) temperature of 105°F (40.5°C) or higher within 48hrs; 2) continuous crying for 3hrs or more within 48hrs; 3) collapse or shock-like state within 48hrs; 4) convulsion with or without fever within 3d.</li> <li>For DTaP/Tdap only: Unstable neurologic disorder.</li> </ul> <p><b>Note:</b> Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester.</p>
<b>Polio (IPV)</b> <i>Give SC or IM</i>	<ul style="list-style-type: none"> <li>Give to children at ages 2m, 4m, 6–18m, 4–6yrs.</li> <li>May give dose #1 as early as age 6wks.</li> <li>Not routinely recommended for U.S. residents age 18yrs and older (except certain travelers).</li> </ul>	<ul style="list-style-type: none"> <li>All doses should be separated by at least 4wks.</li> <li>If dose #3 is given after 4th birthday, dose #4 is not needed.</li> </ul>	<p><b>Contraindication</b> Previous anaphylaxis 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>
<b>Human papilloma-virus (HPV)</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give 3-dose series to girls at age 11–12yrs on a 0, 2, 6m schedule. (May be given as early as age 9yrs.)</li> <li>Vaccinate all older girls and women (through age 26yrs) who were not previously vaccinated.</li> </ul>	<p>Minimum spacing between doses: 4wks between #1 and #2; 12 wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3.</p>	<p><b>Contraindication</b> Previous anaphylaxis 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>

\*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of the 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 Coalition (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/childrules](http://www.immunize.org/childrules) to make sure you have the most current version.

# Summary of Recommendations for Childhood and Adolescent Immunization

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccine administration and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Varicella</b> (Var) (Chickenpox) <i>Give SC</i>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 3m since dose #1.</li> <li>• Give a second dose to all older children and adolescents with history of only 1 dose.</li> <li>• MMRV may be used in children age 12m through 12yrs.</li> </ul>	<ul style="list-style-type: none"> <li>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs or older, space at least 4wks apart.</li> <li>• May use as postexposure prophylaxis if given within 5d.</li> <li>• If Var and either MMR, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Children 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 percentages are either 15% or greater in children ages 1 through 8yrs or 200 cells/mL or greater in children age 9yrs or older).</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 <i>General Recommendations on Immunization*</i> regarding time to wait before vaccinating.</li> </ul> <p><b>Note:</b> For patients with humoral immunodeficiency or leukemia, see ACIP recommendations*.</p>
<b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 4wks since dose #1.</li> <li>• Give a second dose to all older children and teens with history of only 1 dose.</li> <li>• MMRV may be used in children age 12m through 12yrs.</li> </ul>	<ul style="list-style-type: none"> <li>• If MMR and either Var, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</li> <li>• When using MMR for both doses, minimum interval is 4wks.</li> <li>• When using MMRV for both doses, minimum interval is 3m.</li> <li>• Within 72hrs of measles exposure, give 1 dose of MMR as postexposure prophylaxis to susceptible healthy children age 12m and older.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis 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). Note: HIV infection is NOT a contraindication to MMR for children who are not severely immunocompromised (consult ACIP MMR recommendations [MMWR 1998;47 [RR-8] for details*).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, or immune globulin given in past 11m, see ACIP statement <i>General Recommendations on Immunization*</i> regarding time to wait before vaccinating.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> </ul> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content;"> <p><b>Note:</b> MMR is not contraindicated if a TST (tuberculosis skin test) was recently applied. If TST and MMR are not given on same day, delay TST for at least 4wks after MMR.</p> </div>
<b>Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i> <hr/> <i>Live attenuated influenza vaccine (LAIV)</i> <i>Give intranasally</i>	<ul style="list-style-type: none"> <li>• Vaccinate all children and teens age 6m through 18yrs, as well as all household contacts of infants and children through age 59m (4yrs 11m).</li> <li>• Vaccinate persons age 19yrs and older who               <ul style="list-style-type: none"> <li>- have a risk factor (e.g., pregnancy, heart or lung disease, renal, hepatic, hematologic, or metabolic disorder [including diabetes], immunosuppression, or have a condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration) or live in a chronic-care facility.</li> <li>- live or work with at-risk people as listed above.</li> </ul> </li> <li>• All other persons who want to reduce the likelihood of becoming ill with influenza or of spreading it to others.</li> <li>• LAIV may be given to healthy, non-pregnant persons age 2–49yrs.</li> <li>• Give 2 doses to first-time vaccinees age 6m through 8yrs, spaced 4wks apart.</li> <li>• For TIV, give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older.</li> </ul>		<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine, to any of its components, or to eggs.</li> <li>• For LAIV only: Pregnancy, asthma, reactive airways disease, or other chronic disorder of the pulmonary or cardiovascular systems; an underlying medical condition, including metabolic diseases such as diabetes, renal dysfunction, and hemoglobinopathies; known or suspected immune deficiency diseases or immunosuppressed states; for children younger than age 5yrs, possible reactive airways disease (e.g., recurrent wheezing or a wheezing episode within the past 12m).</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 within 6wks of a previous influenza vaccination.</li> </ul> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content;"> <p><b>Note:</b> If LAIV and either MMR, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</p> </div>
<b>Rotavirus</b> (RV) <i>Give orally</i>	<ul style="list-style-type: none"> <li>• Rotarix (RV1): give at age 2m, 4m</li> <li>• RotaTeq (RV5): give at age 2m, 4m, 6m</li> <li>• May give dose #1 as early as age 6wks.</li> <li>• Give dose #3 no later than age 8m 0 days.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not begin series in infants older than age 15wks 0 days.</li> <li>• Intervals between doses may be as short as 4wks.</li> <li>• If prior vaccination included use of different or unknown brand(s), a total of 3 doses should be given.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylaxis to this vaccine or to any of its components, including latex for RV1.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• Altered immunocompetence.</li> <li>• Moderate to severe acute gastroenteritis or chronic gastrointestinal disease.</li> <li>• History of intussusception.</li> </ul>

# Summary of Recommendations for Childhood and Adolescent Immunization

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Hib</b> (<i>Haemophilus influenzae</i> type b) Give IM</p>	<ul style="list-style-type: none"> <li>• ActHib (PRP-T): give at age 2m, 4m, 6m, 12–15m (booster dose).</li> <li>• PedvaxHIB or Comvax (containing PRP-OMP): give at age 2m, 4m, 12–15m (booster dose).</li> <li>• Dose #1 of Hib vaccine should not be given earlier than age 6wks.</li> <li>• The last dose (booster dose) is given no earlier than age 12m and a minimum of 8wks after the previous dose.</li> <li>• Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses are necessary to complete the primary series in infants.</li> <li>• Any Hib vaccine may be used for the booster dose.</li> <li>• Hib is not routinely given to children age 5yrs and older.</li> </ul>	<p><b>All Hib vaccines:</b></p> <ul style="list-style-type: none"> <li>• If #1 was given at 12–14m, give booster in 8wks.</li> <li>• Give only 1 dose to unvaccinated children from age 15 through 59m.</li> </ul> <p><b>ActHib:</b></p> <ul style="list-style-type: none"> <li>• #2 and #3 may be given 4wks after previous dose.</li> <li>• If #1 was given at age 7–11m, only 3 doses are needed; #2 is given 4–8wks after #1, then boost at age 12–15m (wait at least 8wks after dose #2).</li> </ul> <p><b>PedvaxHIB and Comvax:</b></p> <ul style="list-style-type: none"> <li>• #2 may be given 4wks after dose #1.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine or to any of its components.</li> <li>• Age younger than 6wks.</li> </ul> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>
<p><b>Pneumo. conjugate (PCV)</b> Give IM</p>	<ul style="list-style-type: none"> <li>• Give at ages 2m, 4m, 6m, 12–15m.</li> <li>• Dose #1 may be given as early as age 6wks.</li> <li>• Give 1 dose to unvaccinated healthy children age 24–59m.</li> <li>• For high-risk** children ages 24–59m, give 2 doses at least 8wks apart if previous vaccinations were fewer than 3 doses, or give 1 dose if previously received 3 doses.</li> <li>• PCV is not routinely given to children age 5yrs and older.</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>**High-risk:</b> Those with sickle cell disease; anatomic/functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppression; diseases associated with immunosuppressive and/or radiation therapy; or who have or will have a cochlear implant.</p> </div>	<ul style="list-style-type: none"> <li>• For age 7–11m: If history of 0–2 doses, give additional doses 4wks apart with no more than 3 total doses by age 12m; then give booster 8wks later.</li> <li>• For age 12–23m: If 0–1 dose before age 12m, give 2 doses at least 8wks apart. If 2–3 doses before age 12m, give 1 dose at least 8wks after previous dose.</li> <li>• For age 24–59m: If patient has had no previous doses, or has a history of 1–3 doses given before age 12m but no booster dose, or has a history of only 1 dose given at age 12–23m, give 1 dose now.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>
<p><b>Pneumo. polysacch. (PPSV)</b> Give IM or SC</p>	<ul style="list-style-type: none"> <li>• Give 1 dose at least 8wks after final dose of PCV to high-risk children age 2yrs and older.</li> <li>• For children who are immunocompromised or have sickle cell disease or functional or anatomic asplenia, give a 2nd dose of PPSV 5yrs after previous PPSV (consult ACIP PPSV recommendations at <a href="http://www.cdc.gov/vaccines/pubs/ACIP-list.htm">http://www.cdc.gov/vaccines/pubs/ACIP-list.htm</a>*).</li> </ul>		<p><b>Contraindication</b></p> <p>Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>
<p><b>Hepatitis A (HepA)</b> Give IM</p>	<ul style="list-style-type: none"> <li>• Give 2 doses to all children at age 1yr (12–23m) spaced 6m apart.</li> <li>• Vaccinate all previously unvaccinated children and adolescents age 2 years and older who             <ul style="list-style-type: none"> <li>- Live in a state, county, or community with a routine vaccination program already in place for children age 2yrs and older.</li> <li>- Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan.</li> <li>- Wish to be protected from HAV infection.</li> <li>- Have chronic liver disease, clotting factor disorder, or are MSM adolescents.</li> <li>- Are injecting or non-injecting drug users.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Minimum interval between doses is 6m.</li> <li>• Children who are not fully vaccinated by age 2yrs can be vaccinated at subsequent visits.</li> <li>• Consider routine vaccination of children age 2yrs and older in areas with no existing program.</li> <li>• Give 1 dose as postexposure prophylaxis to incompletely vaccinated children age 12m and older who have recently (during the past 2wks) been exposed to hepatitis A virus.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylaxis 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>
<p><b>Meningococcal conjugate (MCV)</b> Give IM</p> <p><b>polysaccharide (MPSV)</b> Give SC</p>	<ul style="list-style-type: none"> <li>• Give 1-time dose of MCV to adolescents age 11 through 18yrs.</li> <li>• Vaccinate all college freshmen living in dorms who have not been vaccinated.</li> <li>• Vaccinate all children age 2yrs and older who have any of the following risk factors (MCV is preferable to MPSV):             <ul style="list-style-type: none"> <li>- Anatomic or functional asplenia, or terminal complement component deficiency.</li> <li>- Travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of Sub-Saharan Africa).</li> </ul> </li> </ul>	<p>If previously vaccinated with MPSV and risk continues, give MCV 5yrs after MPSV.</p>	<p><b>Contraindication</b></p> <p>Previous anaphylaxis to this vaccine or to any of its components, including diphtheria toxoid (for MCV).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• For MCV only: history of Guillain-Barré syndrome (GBS).</li> </ul>

# 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>Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i></p> <hr/> <p>Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i></p>	<ul style="list-style-type: none"> <li>All persons who want to reduce the likelihood of becoming ill with influenza or of spreading it to others.</li> <li>Persons age 50yrs and older. [TIV only]</li> <li>Persons with medical problems (e.g., heart or lung disease, renal, hepatic, hematologic, or metabolic disorder [including diabetes], immunosuppression). [TIV only]</li> <li>Persons with any condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injury, seizure disorder, or other neuromuscular disorder). [TIV only]</li> <li>Persons living in chronic care facilities. [TIV only]</li> <li>Persons who work or live with high-risk people.</li> <li>Women who will be pregnant during the influenza season (December–spring). [If currently pregnant, TIV only]</li> <li>All healthcare personnel and other persons who provide direct care to high-risk people.</li> <li>Household contacts and out-of-home caregivers of children age 0–59m.</li> <li>Travelers at risk for complications of influenza who go to areas where influenza activity exists or who may be among people from areas of the world where there is current influenza activity (e.g., on organized tours ). [TIV only]</li> <li>Students or other persons in institutional settings (e.g., residents of dormitories or correctional facilities).</li> </ul> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p><b>Note:</b> LAIV may not be given to some of the persons listed to the left; see contraindications listed in far right column.</p> </div>	<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 vaccine—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, age 50 years or older, pregnancy, asthma, reactive airway disease or other chronic disorder of the pulmonary or cardiovascular system; an underlying medical condition, including metabolic disease such as diabetes, renal dysfunction, and hemoglobinopathy; a known or suspected immune deficiency disease or immunosuppressed state.</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 of previous influenza vaccination.</li> </ul>
<p><b>Pneumococcal polysaccharide (PPSV)</b> <i>Give IM or SC</i></p>	<ul style="list-style-type: none"> <li>Persons age 65yrs and older.</li> <li>Persons who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease, chronic liver disease, alcoholism, diabetes, CSF leaks, cigarette smoking, as well as people living in special environments or social settings (including Alaska Natives and certain American Indian populations age 50 through 64 years if recommended by local public health authorities).</li> <li>Those at highest risk of fatal pneumococcal infection, including persons who             <ul style="list-style-type: none"> <li>have anatomic asplenia, functional asplenia, or 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 at least 5yrs after 1st dose to persons             <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 persons 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>
<p><b>Zoster (shingles) (Zos)</b> <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>Persons 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> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to any component of zoster vaccine (e.g., gelatin &amp; neomycin).</li> <li>Primary cellular or acquired immunodeficiency.</li> <li>Pregnancy.</li> </ul> <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 Coalition

(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>Hepatitis B (HepB)</b> <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>All persons through age 18yrs.</li> <li>All adults wishing to be protected from hepatitis B virus infection.</li> <li>High-risk persons, including household contacts and sex partners of HBsAg-positive persons; injecting drug users; sexually active persons not in a long-term, mutually monogamous relationship; men who have sex with men; persons 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>Persons 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. Screen sex partners and household members; give HepB at the same visit if not already vaccinated.</p>	<ul style="list-style-type: none"> <li>Give 3 doses on a 0, 1, 6m schedule.</li> <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> <li><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.</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. An alternative schedule can also be used at 0, 7d, 21–30d, and a booster at 12m.</p> </div>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<p><b>Hepatitis A (HepA)</b> <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>All persons wishing to be protected from hepatitis A virus (HAV) infection.</li> <li>Persons who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.</li> <li>Persons with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; persons who work with HAV in experimental lab settings (not routine medical laboratories); food handlers when health authorities or private employers determine vaccination to be appropriate.</li> <li>Unvaccinated adults age 40yrs or younger with recent (within 2 wks) exposure to HAV. For persons 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>	<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>Safety during pregnancy has not been determined, so benefits must be weighed against potential risk.</li> </ul>
<p><b>Td, Tdap (Tetanus, diphtheria, pertussis)</b> <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 persons who are unvaccinated or behind, complete the primary series with Td (spaced at 0, 1–2m, 6–12m intervals). 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>Note:</b> The two Tdap products are licensed for different age groups: Adacel™ (sanofi) for use in persons age 11–64yrs and Boostrix® (GSK) for use in persons age 10–18yrs.</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>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>GBS within 6wks of receiving a 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 MCV.</li> </ul> <p><b>Note:</b> Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider's discretion.</p>
<p><b>Polio (IPV)</b> <i>Give IM or SC</i></p>	<p>Not routinely recommended for U.S. residents age 18yrs and older.</p> <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 (i.e., India, Pakistan, Afghanistan, and Nigeria). Previously vaccinated adults can receive 1 booster dose if traveling to polio endemic areas.</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 or neurologic 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>



# 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>Varicella</b> (Var) (Chickenpox) <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; laboratory confirmation of disease; and/or birth in the U.S. before 1980, with the exceptions that follow. Healthcare personnel (HCP) and pregnant women born in the U.S. before 1980 who do not meet any of the criteria above should be tested. If they are not immune, give the first dose of varicella vaccine immediately (HCP) or postpartum and before hospital discharge (pregnant women). Give the second dose 4–8 wks later. Routine post-vaccination testing is not recommended.</p>	<ul style="list-style-type: none"> <li>Give 2 doses.</li> <li>Dose #2 is given 4–8wks after dose #1.</li> <li>If the second dose 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, and/or yellow fever vaccine—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>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 <i>MMWR</i> 2007;56,RR-4).</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 <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating.</li> </ul>
<p><b>Meningococcal</b> Conjugate vaccine (MCV) <i>Give IM</i> Polysaccharide vaccine (MPSV) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>All persons age 11 through 18yrs.</li> <li>College freshmen living in a dormitory.</li> <li>Persons with anatomic or functional asplenia or with a terminal-complement component deficiency.</li> <li>Persons 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> </ul>	<ul style="list-style-type: none"> <li>Give 1 dose.</li> <li>If previous vaccine was MPSV, revaccinate after 3yrs if risk continues.</li> <li>Revaccination after MCV is not recommended.</li> <li>MCV is preferred over MPSV for persons age 55yrs and younger, although MPSV is an acceptable alternative.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylactic or neurologic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>For MCV only, history of Guillain-Barré syndrome (GBS).</li> </ul>
<p><b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>Persons born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if there is no serologic proof of immunity or documentation of a dose given on or after the first birthday.</li> <li>Persons 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>Persons born before 1957 are usually considered immune, but proof of immunity (serology or vaccination) may be desirable 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, and/or yellow fever vaccine—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>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 <i>General Recommendations on Immunization</i>* 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>Human papillomavirus</b> (HPV) <i>Give IM</i></p>	<p>All previously unvaccinated women through age 26yrs.</p>	<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.</li> </ul>	<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>Data on vaccination in pregnancy are limited. Vaccination should be delayed until after completion of the pregnancy.</li> </ul>

IAC's  
"Ask the  
Experts"  
team



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saves paper and staff time. When giving the multi-vaccine VIS to a parent, check the boxes on the first page that correspond to the vaccines you plan to administer at the current visit. The multi-vaccine VIS, as well as all other VISs in English and more than 30 languages, are available on IAC's website at [www.immunize.org/vis](http://www.immunize.org/vis). English-language VISs are available on CDC's website at [www.cdc.gov/vaccines/pubs/vis](http://www.cdc.gov/vaccines/pubs/vis).

**We sometimes have differences of opinion among our staff in determining the minimum interval or age for administering vaccines. Recommendations are sometimes written in months, weeks, or days. Can you help clarify?**

This is a common source of frustration. Customarily, if the dosing interval is 4 months or more, it is common to use calendar months (e.g., 6 months from October 1 is April 1). If the interval is less than 4 months, it is common to convert months into days or weeks (e.g., 1 month = 4 weeks = 28 days).

**Is it okay to store blood products in the same unit as vaccines?**

CDC's vaccine storage and handling toolkit states "If possible, other medications and other biologic products should not be stored inside the vaccine storage unit. If there is no other choice, these products must be stored below the vaccines on a different shelf. This prevents contamination of the vaccines should the other products spill."

**Does CDC still have a vaccine handling and storage toolkit?**

Yes. You can access it from CDC's website at [www2a.cdc.gov/vaccines/ed/shtoolkit](http://www2a.cdc.gov/vaccines/ed/shtoolkit). The toolkit contains 2 videos on CD-ROM (How to Protect Your Vaccine Supply and Top 10 Storage and Handling Errors); an interactive game; and resources including forms, checklists, posters, and contact information. Single copies of the CD-ROM can be ordered from CDC at [https://www2a.cdc.gov/nch-stp\\_od/PIWeb/niporderform.asp](https://www2a.cdc.gov/nch-stp_od/PIWeb/niporderform.asp).

**What is the maximum number of IM or SC doses of vaccines that a child can receive at a single visit? Is it okay for a child to receive 3 live vaccines at one visit (e.g., MMR, Var, and LAIV)?**

All vaccines can be administered at the same visit. There is no limit to the number of IM or SC

injections that can be given at a single visit. So, an age-appropriate child can get MMR, Var, and LAIV vaccines during a single visit. If live parenteral (injected) vaccines (MMR, Var, MMRV, zoster, and/or yellow fever) and LAIV are not administered during the same visit, they should be separated by 4 weeks or more. For details, consult CDC's "General Recommendations on Immunization" at [www.cdc.gov/mmwr/PDF/rr/rr5515.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5515.pdf).

**Do Occupational Safety and Health Administration (OSHA) guidelines require the use of gloves when administering vaccines?**

OSHA regulations do not require gloves during vaccine administration, unless the administering person is likely to come into contact with potentially infectious body fluids or has an open lesion on their hand.

**Where can I find information about vaccine shortages and delays?**

Visit CDC's website at [www.cdc.gov/vaccines/vac-gen/shortages/default.htm](http://www.cdc.gov/vaccines/vac-gen/shortages/default.htm).

**When a parent is unable to produce documentation but insists that their child received the vaccine doses, what should we do?**

Vaccination providers frequently encounter persons who do not have adequate documentation of vaccinations. Providers should only accept written, dated records as evidence of vaccination. With the exception of influenza vaccine and pneumococcal polysaccharide vaccine (PPSV), self-reported doses of vaccine without written documentation should not be accepted. An attempt to locate missing records should be made whenever possible—by contacting previous healthcare providers, reviewing state or local immunization information systems, and searching for a personally held record. However, if records cannot be located or will definitely not be available anywhere because of the patient's circumstances, children without adequate documentation should be considered susceptible and should be started on the age-appropriate vaccination schedule. Serologic testing for immunity is an alternative to vaccination for certain antigens (e.g., measles, rubella, hepatitis A, and tetanus).

In general, although it is not ideal, receiving extra doses of vaccine poses no medical problem. Receiving excessive doses of tetanus toxoid (e.g., DTP, DTaP, DT, Tdap, or Td) can increase the risk of a local adverse reaction, however. For details, consult CDC's "General Recommendations on Immunization" at [www.cdc.gov/mmwr/PDF/rr/rr5515.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5515.pdf).

**Some parents are requesting that we space out their infant's vaccinations because they are concerned that receiving multiple vaccinations at a single office visit might overwhelm**

**the infant's immune system. What do you think about using alternative schedules?**

Vaccine recommendations are determined after extensive studies in large clinical trials. They include studies on how vaccine recipients respond to multiple vaccines given simultaneously. The overall aim is to provide early protection for infants and children against vaccine-preventable diseases that could endanger their health and life. No scientific evidence exists to support that delaying vaccina-

## Corrections to "Ask the Experts"

Readers had reservations about answers given to two questions that appeared in the "Ask the Experts" section of the March 2008 issue of *Needle Tips*. Drs. Atkinson and Kroger subsequently issued corrected answers to these questions, which IAC published in its electronic newsletter, *IAC Express*. Both corrected answers are reprinted below.

To make sure you always receive *Needle Tips* corrections as soon as they are issued, subscribe to *IAC Express*. It's free. To sign up, go to [www.immunize.org/subscribe](http://www.immunize.org/subscribe).

**One of our staff gave a dose of pediatric hepatitis A vaccine to an adult patient by mistake. How do we remedy this error?**

If less than a full age-appropriate dose of any vaccine is given, the dose should not be counted. The person should be revaccinated with the appropriate dose as soon as possible.

**What are the new recommendations for vaccination of travelers to protect them from hepatitis A virus (HAV) infection?**

The new recommendations ([www.cdc.gov/mmwr/preview/mmwrhtml/mm5641a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5641a3.htm)) state that (1) hepatitis A vaccine is recommended for healthy susceptible persons ages 1 through 40 years who travel to or work in regions where hepatitis A is endemic and (2) hepatitis A vaccine should be given as soon as travel is considered, but it can be given any time prior to departure. For optimal protection in instances when departure will take place within two weeks, persons older than age 40 years, immunocompromised persons, and persons with diagnosed chronic liver disease or other chronic medical conditions, should also receive IG simultaneously with the first dose of hepatitis A vaccine but at a different anatomic injection site. For travelers younger than age 1 year, IG alone is recommended because hepatitis A vaccine is not licensed for use in this age group. Hepatitis A is endemic in all regions except the United States, Western Europe, New Zealand, Australia, Canada, and Japan.

## Needle Tips correction policy

The Immunization Action Coalition works tirelessly to ensure the accuracy of the information we make available. At times, however, mistakes occur. If you find an error, please notify us immediately. 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).

tions or separating them into individual antigens is beneficial for children. Rather, this practice prolongs susceptibility to disease, which could result in a greater likelihood of the child becoming sick with a serious or life-threatening disease. There could also be added expense (e.g., multiple office visits), additional time off from work for parents, and increased likelihood that the child will fail to get all necessary vaccinations.

**If a patient or parent refuses recommended vaccinations, is it necessary for them to sign a refusal form, or is the provider's documentation sufficient?**

The American Academy of Pediatrics states that healthcare providers may decide it is in their best interest to formally document a parent's refusal to accept vaccination for their (minor) child. To read a discussion on this topic and to access a prototype refusal form, go to [www.cispimmunize.org/pro/pdf/RefusaltoVaccinate\\_revised%204-11-06.pdf](http://www.cispimmunize.org/pro/pdf/RefusaltoVaccinate_revised%204-11-06.pdf).

**Is it necessary to routinely obtain a pregnancy test before administering any vaccines to young women?**

No. Pregnancy tests are not routinely recommended. However, females of childbearing age should be asked about the possibility of their being pregnant prior to being given any vaccine for which pregnancy is a contraindication or precaution. The patient's answer should be documented in the medical record. If the patient is uncertain if she is pregnant, a test should be performed before administering live virus vaccines (e.g., measles-mumps-rubella [MMR], varicella [Var], LAIV [live attenuated influenza vaccine, i.e., FluMist®]).

**What guidance is there for preventing patients from fainting after vaccination?**

All providers who administer vaccinations should be aware of the potential for syncope (fainting) after vaccination and take appropriate measures to prevent it. Thus, clinicians should (1) make sure that people who are being vaccinated are always seated; (2) be aware of symptoms that precede fainting (weakness, dizziness, pallor, etc.); and (3) take appropriate measures to prevent injuries if such symptoms occur. [Note: IAC has two pertinent educational pieces for healthcare professionals: "Medical Management of Vaccine Reactions in Children and Teens" at [www.immunize.org/catg.d/p3082a.pdf](http://www.immunize.org/catg.d/p3082a.pdf) and "Medical Management of Vaccine Reactions in Adult Patients" at [www.immunize.org/catg.d/p3082.pdf](http://www.immunize.org/catg.d/p3082.pdf).]

Since 2005, VAERS has received an increased number of reports of syncope. Fainting among girls and young women ages 11–18 accounted for most of the increase. Serious injuries have occurred, including one fatality from intracranial hemorrhage caused by head trauma. The May 2, 2008, *MMWR* included a summary of findings on the increase in fainting after vaccination (see [www.cdc.gov/mmwr/preview/mmwrhtml/mm5717a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5717a2.htm)). In people for whom vaccination time and fainting time were reported, it was discovered that 52% of faint-

ing episodes occurred within 5 minutes of vaccination and 70% occurred within 15 minutes. Vaccine providers should strongly consider observing vaccinated people for 15 minutes after vaccination, in accordance with ACIP General Recommendations (see [www.cdc.gov/mmwr/PDF/rr/rr5515.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5515.pdf)). This is particularly important when vaccinating adolescents and young adults.

**Please describe the newly licensed rotavirus vaccine, Rotarix®.**

FDA licensed Rotarix (GSK) on April 3, 2008. It is approved for oral administration as a 2-dose series to infants at ages 2 and 4 months. The lyophilized (freeze-dried) vaccine is reconstituted with a 1-mL liquid diluent and administered from a prefilled oral applicator.

**How do the two rotavirus vaccines differ?**

The rotavirus vaccination series consists of either two 1-mL doses of Rotarix (GSK) given at 2 and 4 months of age or three 2-mL doses of RotaTeq® (Merck) given at 2, 4, and 6 months of age. CDC has revised its recommendations to make the schedule less confusing: neither vaccine should be initiated in an infant once the infant becomes age 15 weeks (i.e., is older than 14 weeks 6 days) and the series should be completed before the infant turns 8 months 0 days. CDC's provisional recommendations for rotavirus vaccine are available at [www.cdc.gov/vaccines/recs/provisional](http://www.cdc.gov/vaccines/recs/provisional).

**Now that there are two licensed vaccines for rotavirus that have different schedules, how can we keep track of which vaccine an infant might have previously received?**

That may be difficult at first. The generic abbreviation for the rotavirus vaccine was recently changed to "RV" (it used to be "Rota"). CDC has also developed abbreviations to distinguish the two RV vaccines. Rotarix is now abbreviated as RV1 (a monovalent vaccine containing a live, attenuated human G1P[8] virus), and RotaTeq as RV5 (a pentavalent vaccine comprising 5 live reassortant rotaviruses). Immunization providers should use these new abbreviations when recording the vaccine they administered.

**If we don't know which rotavirus vaccine an infant previously received, how should we complete the schedule?**

If you have any doubt about which vaccine the infant previously received and the infant is at an age when the vaccine can still be given, give a total of 3 doses of rotavirus vaccine.

**Please describe the new combination vaccine Pentacel® and how it should be used.**

On June 20, 2008, FDA licensed Pentacel (sanofi pasteur), a DTaP-IPV-Hib combination vaccine. It is approved for use as a 4-dose series in infants and children at ages 2, 4, 6, and 15–18 months. It should not be used for any dose in the primary series for children age 5 years or older or as the booster dose for children ages 4–6 years. The DTaP-IPV component is supplied as a sterile liquid, which is used to reconstitute lyophilized (freeze-dried) ActHIB® vaccine. The two components of the vaccine should be stored together in the carton to reduce vaccine administration errors. The DTaP-IPV component should never be administered alone.

**Can we give Pentacel to a child who has previously received separate injections of one or more of these antigens?**

Yes, as long as minimum intervals are maintained.

**Can I use Pentacel to give the 12–15 month booster dose of Hib vaccine even though there is a Hib vaccine shortage?**

No. During the Hib vaccine shortage, you should not give Pentacel as dose #4 of the series. Administer a single dose of DTaP for dose #4.

**Can we give Pentacel if we don't know the type of DTaP vaccine the child previously received?**

Yes. CDC recommends that whenever feasible, only one manufacturer's DTaP product be used for the entire pertussis series, but that vaccinations should not be deferred if the DTaP product previously given is unavailable or unknown.

(continued on page 20)

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**Please tell us about the new combination vaccine Kinrix® and the recommendations for its use.**

On June 24, 2008, FDA licensed Kinrix (GSK), a combination DTaP and IPV vaccine. It is approved for use as the fifth dose of DTaP and the fourth dose of IPV in children ages 4 through 6 years who received DTaP (Infanrix®) and/or DTaP-HepB-IPV (Pediarix®) as the first three doses and DTaP (Infanrix) as the fourth dose. It should not be given to children younger than age 4 years.

**When administering combination vaccines like Kinrix and Pentacel, which VISs should be used?**

You can use either the individual VISs that exist for the separate antigens or you can use the multi-vaccine VIS. Remember to check the appropriate boxes on the front page of the multi-vaccine VIS.

**We have a 13-year-old patient who was given DT (pediatric) as a preschooler after she had experienced excessive crying following a dose of DTP. Now, we are wondering if we can give her Tdap since we know she may not be protected against pertussis.**

Yes, you can. Many of the precautions to DTaP (e.g., temperature of 105°F or higher, collapse or shock-like state, persistent crying lasting 3 hours or longer, seizure with or without fever) do not apply to Tdap. This issue is discussed in CDC's Tdap recommendations, available at [www.cdc.gov/mmwr/PDF/rr/rr5503.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5503.pdf).

**We gave Tdap to a child who was just short of their 10th birthday. What should we do?**

Use of Tdap in children ages 7–9 years is considered off-label and is not recommended; however, the dose can be counted and does not need to be repeated with Td.

**What is the significance of the difference in the abbreviations for the vaccines DTaP (for**

**children younger than age 7 years) and Tdap (used in adolescents or adults)?**

Both vaccines provide protection against diphtheria, tetanus, and pertussis, but DTaP has *more* diphtheria toxoid (3–5 times as much) and more pertussis antigen than the amount in the Tdap vaccines. This larger amount of antigen is reflected by the use of the capital letters “D” and “P” when writing DTaP (the pediatric vaccine). Because both DTaP and Tdap contain equal amounts of tetanus antigen, both vaccine abbreviations contain a capital “T.”

**Can the parents of a young infant be given a dose of Tdap right after birth to protect themselves and, indirectly, their newborn from pertussis, even though they had a dose of Td vaccine less than two years ago?**

Yes. Parents should receive a single dose of Tdap as soon as possible to protect their baby from pertussis. If a dose of Td was given within the previous 2 years, parents should still be vaccinated with Tdap as soon as possible regardless of the time interval since the last dose of Td. Other household contacts that are not up to date with their pertussis-containing vaccinations should also be appropriately vaccinated.

**How soon after a dose of Td can a healthcare worker receive a dose of Tdap, in order to protect vulnerable infants and others?**

If they have not previously received Tdap, healthcare personnel in hospitals and ambulatory care settings who have direct patient contact should receive a single dose of Tdap as soon as feasible and without regard to the dosing interval since the last Td. There is no “minimum interval” one needs to wait between receiving Td and Tdap when it is given to protect infants or other vulnerable patients.

**When a patient seen in the ER needs tetanus protection, which vaccine should be given, Td or Tdap?**

Adolescents and adults ages 11–64 years who require a tetanus toxoid-containing vaccine as part of wound management should receive a single dose of Tdap instead of Td, if they have not previously received Tdap. If Tdap is not available, or was previously administered, these persons should receive Td.

**When will the Hib vaccine shortage be over?**

It is anticipated that the Hib vaccine supply will improve in mid-2009.

**For which age groups of children is influenza vaccination now recommended?**

Starting in fall 2008, all children ages 6 months through 18 years are recommended to receive annual vaccination against influenza. CDC issued this expanded recommendation with the intent to begin in the 2008–09 influenza vaccination season and be fully in place by the 2009–10 season.

**Which adults should receive influenza vaccine this year?**

Influenza vaccination is recommended for the following adults: those age 50 years and older; women who will be pregnant during the influenza season; those with the following medical conditions: a chronic disorder of the pulmonary or cardiovascular system, a chronic disease of the blood, liver, or kidneys, immunosuppression, or diabetes; residents of nursing homes or other chronic-care facilities; all healthcare personnel; and household contacts and caregivers of children ages 0–59 months and of other persons at increased risk of complications of influenza. Influenza vaccine is also recommended for any persons who want to reduce the risk of becoming ill with influenza or of transmitting it to others.

**What percentage of the U.S. population is recommended to receive influenza vaccination?**

With the new recommendation to vaccinate all children ages 6 months through 18 years, 85% of the U.S. population should be vaccinated every year.

**Who can receive the nasal spray influenza vaccine (FluMist) and who can receive injectable influenza vaccine?**

FluMist can be given to all healthy, non-pregnant people ages 2 through 49 years. However, FluMist should not be given to healthy children younger than age 5 years who have recurrent wheezing or have had a wheezing episode within the past 12 months. Injectable influenza vaccine can be given to all people age 6 months and older who have no contraindications or precautions to vaccination.

**Which children need 2 doses of influenza vaccine?**

Children ages 6 months through 8 years who are receiving influenza vaccine for the first time should be given 2 doses at least 4 weeks apart. If they fail to

**This is the last print edition of “Ask the Experts.”**

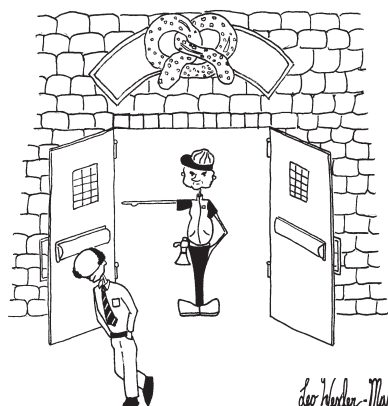
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Why was the expert in the pretzel factory fired?



Because he tried to straighten things out.

get 2 doses during the current vaccination season, they should get 2 doses during the next season.

**When a child needs 2 doses of influenza vaccine, can I give 1 dose of each type (injectable and nasal spray)?**

Yes. As long as a child is eligible to receive nasal spray vaccine (i.e., is in the proper age range and health status), it is acceptable to give 1 dose of each type of influenza vaccine. The doses should be spaced at least 4 weeks apart.

**Is it true that I can vaccinate pregnant women with influenza vaccine during their first trimester?**

Yes. All women who are pregnant or will be pregnant during the influenza season should be vaccinated, including those who are in their first trimester. Only inactivated (injectable) vaccine should be given to pregnant women.

**Can thimerosal-containing vaccine be given to pregnant women?**

Yes, unless you live in a state that has enacted legislation restricting use in pregnant women. There is no scientific evidence that thimerosal in vaccines, including influenza vaccines, is a cause of adverse events, unless the patient has a systemic allergy to thimerosal.

**During which month is it no longer worthwhile to give influenza vaccine to my patients?**

If you have influenza vaccine in your refrigerator and unvaccinated patients in your office, you should vaccinate them. Vaccinating in June is likely unnecessary.

**What is the Joint Commission's recommendation on vaccinating healthcare workers against influenza?**

In January 2007, a new infection control standard of the Joint Commission became effective that requires accredited organizations to offer annual influenza vaccination to staff, volunteers, and licensed independent practitioners who have close patient contact.

**To accelerate completion of the human papillomavirus (HPV) vaccine series, can doses be given at 0, 1, and 4 months?**

No, there is no accelerated schedule for completing the HPV vaccine series. You should follow the recommended schedule of 0, 2, and 6 months.

**If a patient receives the third dose of HPV vaccine earlier than recommended, should she be given a fourth dose?**

Maybe. If the 3-dose series was given in 16 weeks or more, do not repeat any doses. If the 3-dose series was given in less than 16 weeks, repeat dose #3 at least 12 weeks after the invalid dose.

**Can a woman complete the HPV series after age 26 years?**

The series should be completed, even if this means that the series is completed after a woman turns 27.

**We've heard stories in the media lately about severe reactions to the HPV vaccine. Is there any substance to these stories?**

No. In summer 2008 some concerns were raised over two issues—reports of deaths and reports of Guillain-Barré syndrome (GBS) following vaccination with Gardasil®. As of August 2008, Merck reported it had distributed more than 20 million doses of Gardasil in the United States. The Vaccine Adverse Events Reporting System (VAERS) had received reports of 27 deaths. CDC reported that there was not a common pattern to the deaths; if there had been a common pattern, it would suggest the deaths might be caused by the vaccine. Occurrences of GBS, a rare neurological disorder, have been reported through VAERS. FDA and CDC reviewed the reports and found no evidence that Gardasil increased the rate of GBS above what is expected in the population. CDC, working with the FDA and other immunization partners, will continue to monitor the safety of Gardasil. You can find complete information on this and other vaccine safety issues at [www.cdc.gov/vaccinesafety](http://www.cdc.gov/vaccinesafety).

**Who is recommended to be vaccinated against meningococcal disease?**

CDC recommends routine vaccination against meningococcal disease for the following groups:

- All previously unvaccinated adolescents ages 11 through 18 years
- All previously unvaccinated college freshmen who will be living in dormitories
- All persons ages 2 years and older with anatomic or functional asplenia, or terminal complement component deficiencies
- All persons ages 2 years and older who travel to or reside in countries in which *N. meningitidis* is hyperendemic or epidemic, particularly if contact with the local population will be prolonged; this includes anticipated travel to Mecca, Saudi Arabia, for the annual Hajj
- Any person working as a microbiologist with routine exposure to isolates of *N. meningitidis*
- Military recruits, and

**HepB Birth Dose Reminder!**

The Centers for Disease Control and Prevention, the American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Obstetricians and Gynecologists recommend dose #1 of HepB vaccine for ALL newborns before hospital discharge (i.e., not at a later date in the clinic).

**What should we do to make sure all newborns receive the birth dose before hospital discharge?**

The most important thing you can do to ensure that all newborns receive the needed protection of hepatitis B vaccine is to make sure your hospital has policies and procedures in alignment with the recommendations of CDC, AAP, and AAFP, which include establishing [pre-printed] orders for administration of hepatitis B vaccine as part of routine medical care of all medically stable infants weighing 2 kg (4.4 lb) or more. By putting this policy into place, you are ensuring that every newborn will receive the birth dose prior to hospital discharge (unless an order is written in the infant's chart by the healthcare provider to NOT give it).

Guidelines for implementing birth dose policies are found in the official CDC recommendations on hepatitis B prevention in children available at [www.cdc.gov/mmwr/PDF/rr/rr5416.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf).

The AAP endorsement published on 2/3/06 is available at: <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;118/1/404.pdf>.

You can also use the labor and delivery and nursery guidelines from the Immunization Action Coalition (IAC) available at [www.immunize.org/catg.d/p2130.pdf](http://www.immunize.org/catg.d/p2130.pdf).

- Any other person wishing to decrease their risk for meningococcal disease

**We mistakenly gave an infant pneumococcal polysaccharide vaccine (PPSV) instead of pneumococcal conjugate vaccine (PCV). What should we do?**

PPSV is not effective in children younger than age 24 months. PPSV given at this age should not be considered to be part of the pneumococcal vaccination series. PCV should be administered as soon as the error is discovered.

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**I have heard that there will be a change in the PPSV recommendations for adults with asthma and for smokers. Is this true?**

Yes. The 1997 CDC recommendations for the use of PPSV exclude asthma in the chronic pulmonary disease category because no data on increased risk of pneumococcal disease among persons with asthma were available when the recommendation was issued. At its June 2008 meeting, the Advisory Committee on Immunization Practices (ACIP) reviewed new information that suggests that asthma is an independent risk factor for pneumococcal disease among adults. At its October 2008 meeting, ACIP reviewed new information that demonstrates an increased risk of pneumococcal disease among smokers. Consequently, ACIP voted to include both asthma and cigarette smoking as risk factors for pneumococcal disease among adults age 19 through 64 years and as indications for PPSV. The new recommendations will be included in the 2009 Recommended Adult Immunization Schedule, due to be published in January 2009.

**To complete a 21-year-old patient's hepatitis A vaccine series, how many adult doses should I give if the patient received a single dose of pediatric hepatitis A vaccine 5 years ago?**

You should give the patient a dose of adult HepA to complete the 2-dose series. There is never a need to start a vaccine series over.

**We have an adult patient who received the correct pediatric series of HepA vaccine as a teenager and is now traveling abroad. Does the patient need an adult booster?**

No. There is no recommendation for a booster dose of hepatitis A vaccine if a patient has completed the 2-dose series at any age.

**How can I combine hepatitis B (HepB) and hepatitis A (HepA) vaccines to complete a series that was started with Twinrix® but can't be completed that way?**

Twinrix is licensed in the U.S. as a 3-dose series for people age 18 years and older. If Twinrix is not available or if you choose not to use Twinrix to complete the series, you must consider the following: a dose of Twinrix contains a standard adult dose of hepatitis B vaccine and a pediatric dose of hepatitis A vaccine. Thus, a dose of Twinrix can be substituted for any dose of the hepatitis B series but not for any dose of the hepatitis A series.

- Any combination of 3 doses of adult hepatitis B or 3 doses of Twinrix = a complete series of hepatitis B vaccine.
- One dose of Twinrix + 2 doses of adult hepatitis A = a complete series of hepatitis A vaccine.
- Two doses of Twinrix + 1 dose of adult hepatitis A = a complete series of hepatitis A vaccine.

**Why isn't hepatitis A vaccine recommended for sewage and solid waste disposal workers?**

Existing data do not support the use of hepatitis A vaccine routinely in this setting. In published reports of three serologic surveys conducted among U.S. wastewater workers and appropriate com-

parison populations, no substantial or consistent increase in the prevalence of anti-HAV was identified among wastewater workers. No work-related instances of HAV transmission have been reported among wastewater workers in the United States.

**Who is recommended to receive 2 doses of varicella vaccine?**

All persons without evidence of varicella immunity age 12 months and older should receive 2 doses of varicella vaccine. For children ages 12 months through 12 years, the minimum interval between doses is 3 months; for persons age 13 years and older, the minimum interval is 4 weeks.

**If a woman's rubella test is "not immune" during a prenatal visit but she has 2 documented doses of MMR vaccine, does she need a third dose of MMR vaccine postpartum?**

CDC does not routinely recommend more than 2 doses of MMR vaccine. A negative serology after 2 documented doses probably represents a false negative (i.e., antibody titer too low to detect with commercial tests). If a person is found to have a negative serology after 2 documented doses of MMR, it is best to stop testing for rubella. CDC's recommendations for the use of MMR vaccine can be accessed at [www.cdc.gov/mmwr/PDF/rr/rr4708.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr4708.pdf).

**I understand there is a zoster vaccine shortage. What is the anticipated date this problem will be resolved?**

Merck has obtained FDA approval for resumption of manufacturing of Varicella Zoster Virus (VZV) bulk. VZV bulk is used to manufacture varicella vaccine, MMRV vaccine, and zoster vaccine. There is adequate supply of Varivax® (varicella vaccine) to fully implement the recommended 2-dose immunization schedule for all age groups, including catch-up. ProQuad® (MMRV) is currently unavailable. Zostavax® (zoster vaccine) is available for ordering, however, the manufacturer is experiencing shipping delays. For information on shipping dates, go to [www.merckvaccines.com](http://www.merckvaccines.com).

**I understand that Varivax, ProQuad, and Zostavax each have different concentrations of antigen. Would you tell me how they are different?**

A dose of Varivax has 1,530 plaque forming units (PFUs), ProQuad contains 9,800 PFUs (7 times higher than Varivax), and Zostavax contains 19,400 PFUs (13 times higher than Varivax).

**When administering zoster vaccine, is it necessary to ask patients if they have ever had chickenpox or shingles?**

No. All persons age 60 years or older—whether they have a history of chickenpox or shingles or not—should be given zoster vaccine unless they have a medical contraindication. Medical contraindications are described in detail in the recently released CDC recommendations "Prevention of Herpes Zoster." To obtain a copy, go to [www.cdc.gov/mmwr/pdf/rr/rr5705.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr5705.pdf).

**A 60-year-old patient was given varicella vaccine instead of zoster vaccine. Should the patient still be given the zoster vaccine? If so, how long should the interval be between the 2 doses?**

CDC recommendations read as follows: "If a provider mistakenly administers varicella vaccine to a person for whom zoster vaccine is indicated, no specific safety concerns exist, but the dose should not be considered valid and the patient should be administered a dose of zoster vaccine during that same visit. If the error is not immediately detected, a dose of zoster vaccine should be administered as soon as possible but not within 28 days of the varicella vaccine dose to prevent potential interference of 2 doses of live attenuated virus."

**Can we give zoster vaccine to elderly patients who have cancer or an immunosuppressed condition?**

No. Zoster vaccine is contraindicated in persons with primary or acquired immunodeficiency.

**Can you catch shingles from a person with active shingles infection?**

Shingles cannot be passed from one person to another through sneezing, coughing, or casual contact. If a person who has never had chickenpox or been vaccinated against chickenpox comes in direct contact with a shingles rash, the virus could be transmitted to the susceptible person. The exposed person would develop chickenpox, not shingles.

**To submit an "Ask the Experts" question . . .**

You can email your questions about immunization to us at [admin@immunize.org](mailto:admin@immunize.org). IAC will respond to your inquiry. Because we receive hundreds of emails each month, we cannot guarantee that we will use your question in "Ask the Experts." IAC works with CDC to compile new Q&As for our publications based on commonly asked questions. Most of the questions are thus a composite of several inquiries. ♦

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# What do you think about this being the last print edition of *Needle Tips*?



Deborah L. Wexler, MD  
IAC Executive Director

Dear Friends of the Immunization Action Coalition,

There is a sad rush afoot in many fields, including immunization education, to eliminate print publications in favor of online publishing as a way to reduce costs. I, however, am not alone in believing that hard-copy publications are as valuable as they ever were and that their additional costs are justified.

As an example, a 2005 study of radiologists found that even among experienced Internet users, 67% preferred

reading hard-copy journal articles, a substantial portion perceived information

found on the Web to be less credible than that found in traditional sources, and only 26% used the online versions of publications that were offered in advance of the print versions.

Similarly, a large percentage of *Needle Tips* readers tell us that the print version of the publication is easier to read than the online version and that, because the print version is durable and securely bound, it gets circulated around offices, marked up, placed in nurses' stations or staff lounges for reading, and carried along during travel. In addition, it doesn't require an online search, downloading, and printing. Readers tell us that not having the hard copy will be an obstacle to their use of the information we work so hard to supply to them.

And these comments come primarily from *Needle Tips* readers who are fully connected to the Internet and comfortable using the Web! For healthcare professionals who spend long days taking care of patients, the obligation to go online to download immunization information is a burden. And for those healthcare professionals who do not have a fast Internet connection, or who do not use the Internet at all, hard-copy issues are simply essential.

So why would we discontinue printing and mailing *Needle Tips* and our other print publications, especially when we believe so strongly that this will diminish our effectiveness in keeping busy healthcare professionals up to date about the ever-changing, ever more complex aspects of vaccine delivery? The reason is simple: our longtime funding from the Centers for Disease Control and Prevention (CDC) for printing and mailing is no longer available.

Make no mistake: we would very much prefer to continue publishing *Needle Tips* in print. To stay connected with us, be sure to go online now to [www.immunize.org/subscribe](http://www.immunize.org/subscribe) so we can notify you when we post the next online-only issue of *Needle Tips* on our website.

When you sign up, you'll have the opportunity to make comments about the value of having a hard copy of *Needle Tips* mailed directly to you. If you check the box that gives us permission to share your comments with CDC and other funders, you'll help us make the point that the print version of *Needle*

*Tips* is an essential publication worthy of our funders' unwavering financial support.

Finally, please consider making a donation to the Immunization Action Coalition, either from yourself individually or from your organization or practice. Your contribution is tax-deductible to the fullest extent of the law and can be made on our website at [www.immunize.org/support](http://www.immunize.org/support) or by using the envelope stapled into this issue.

And thank you for everything you do to protect people from vaccine-preventable diseases. All of us at IAC look forward to continuing to support your vital work.

Deborah L. Wexler, MD

Deborah L. Wexler, MD  
[deborah@immunize.org](mailto:deborah@immunize.org)

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