

# NEEDLE TIPS

from the Immunization Action Coalition — [www.immunize.org](http://www.immunize.org)

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## The end of hepatitis B virus transmission begins at birth

Last month, the Immunization Action Coalition (IAC) launched its *Give birth to the end of Hep B* campaign, which urges hospitals and other birthing centers to administer the first dose of hepatitis B vaccine to babies before hospital discharge.

Nearly one in three U.S. newborns leaves the hospital unprotected by hepatitis B vaccine, and approximately 800 infants become chronically infected with hepatitis B virus (HBV) each year. Universally administering the birth dose before hospital discharge would protect the vast majority of newborns who are exposed to HBV from their infected mothers' blood.

Timing of the first dose of hepatitis B vaccine is critical! The sooner after birth the newborn receives hepatitis B vaccine, the earlier the infant can mount an immune response capable of overcoming the infection. Specifically, 70%–95% of infants born to mothers who are HBsAg-positive will be protected from chronic HBV infection if given hepatitis B vaccine (alone) within 12 hours of birth. Delaying the first dose of hepatitis B vaccine by even a few days significantly reduces its effectiveness in preventing chronic HBV infection in newborns. Note that CDC's Advisory Committee on Immunization Practices (ACIP) recommends administering hepatitis B immune

globulin (HBIG), along with hepatitis B vaccine, within 12 hours of birth for infants born to mothers whose HBsAg is positive or unknown.

Universal hepatitis B vaccine birth dose policies are needed to provide a safety net to ensure that all newborns are protected from chronic HBV infection, even

when medical errors occur. This is why ACIP made the birth dose recommendation a major part of its 2005 strategy to eliminate hepatitis B virus transmission in the United States. (See [www.cdc.gov/mmwr/PDF/rr/rr5416.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf).)

Medical errors in perinatal settings can lead to newborn HBV infection. Examples include

- Ordering the wrong hepatitis B screening test for the pregnant woman;
- Misinterpreting or mistranscribing hepatitis B test results;

*The end of hepatitis B... continued on p. 5 ►*



## Ask the Experts

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

### Immunization questions?

- 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))

### Influenza vaccine

#### What influenza vaccine products will be available during the 2013–14 influenza season?

Seven manufacturers now produce influenza vaccine for the U.S. market through different technologies (e.g., egg-based, cell culture-based, and recombinant hemagglutinin vaccines). The seven manufacturers and the products they have available for the upcoming season are listed below.

A series of new abbreviations will help identify the different types of vaccines available. The current abbreviations include *IIV* for inactivated influenza vaccine, *RIV* for recombinant hemagglutinin influenza vaccine, *LAIV* for live, attenuated influenza vaccine, and *ccIIV* for cell culture-based IIV. The addition of either a 3 or a 4 at the end of an abbreviation indicates if the vaccine is trivalent or quadrivalent (e.g., IIV3, RIV3, IIV4, LAIV4). The available products are

- Afluria (IIV3), CSL Limited
- Fluarix (IIV3, IIV4), GlaxoSmithKline
- FluLaval (IIV3), ID Biomedical Corporation of Quebec

- FluMist (LAIV4), MedImmune
- Fluvirin (IIV3), Novartis
- Flucelvax (ccIIV3), Novartis
- Flublok (RIV3), Protein Sciences Corporation
- Fluzone (IIV3, IIV4), sanofi pasteur
- Fluzone High-Dose (IIV3), sanofi pasteur
- Fluzone Intradermal (IIV3), sanofi pasteur

IAC has developed a handout that provides infor-

*Ask the Experts... continued on p. 12 ►*

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## Needle Tips

online at [www.immunize.org/nt](http://www.immunize.org/nt)  
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[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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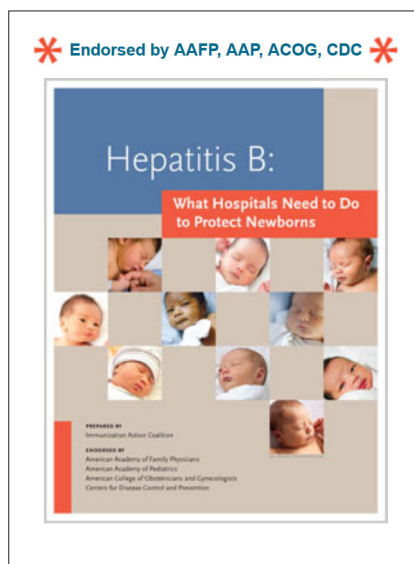
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# Please help "Give birth to the end of Hep B!" To learn more, visit [www.immunize.org/protect-newborns](http://www.immunize.org/protect-newborns)

On July 16th, the Immunization Action Coalition (IAC) launched an initiative urging the nation's hospitals to *Give birth to the end of Hep B*. IAC has created the Protect Newborns web section — [www.immunize.org/protect-newborns](http://www.immunize.org/protect-newborns) — to feature related resources from its new campaign. It includes a free 84-page guidebook for hospitals and birthing centers. Read on for more details.

## About the Guidebook *Hepatitis B: What Hospitals Need to Do to Protect Newborns*

The centerpiece of the initiative is IAC's new, comprehensive guidebook, *Hepatitis B: What Hospitals Need to Do to Protect Newborns*. The book contains a wide range of resources to help birthing institutions



### IAC's 84-page Guidebook

- [Table of contents](#)
- [Download entire guide](#) [4.3 MB]

establish, implement, and optimize their hepatitis B vaccine birth dose policies. The resources include background information about medical errors and educational materials for staff and parents. The American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the American College of Obstetricians and Gynecologists (ACOG), and the Centers for Disease Control and Prevention (CDC) have reviewed and endorsed IAC's birth dose guidebook.

**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.

## Hepatitis B Birth Dose Honor Roll

Complementing the guidebook is our new [Hepatitis B Birth Dose Honor Roll](#), which recognizes birthing institutions that have attained a birth dose coverage rate of 90% or greater and have met specific additional criteria. These criteria help define the important elements of a birth dose policy needed to ensure newborns are protected from hepatitis B virus infection, even when medical errors occur.



Birth Dose Honor Roll

In achieving a 99% coverage rate, Albany Medical Center (Albany, NY) became the first birth dose champion to be inducted into the honor roll at the initiative's July 16 launch event in Albany.

For information about the Hepatitis B Birth Dose Honor Roll and how you can apply, visit [www.immunize.org/honor-roll/birthdose](http://www.immunize.org/honor-roll/birthdose).

## Additional Resources

IAC has developed a fact sheet about its initiative and the guidebook. The information it includes about the importance of implementing a hepatitis B birth dose policy can help you to garner support in your health-care setting.

IAC will announce new enrollees in the Hepatitis B Birth Dose Honor Roll in *IAC Express*, our free weekly email news service.

If you would like to start receiving weekly email announcements about important developments related to immunization, as well as future updates to the Birth Dose Honor Roll, we urge you to complete the sign-up form at [www.immunize.org/subscribe](http://www.immunize.org/subscribe).

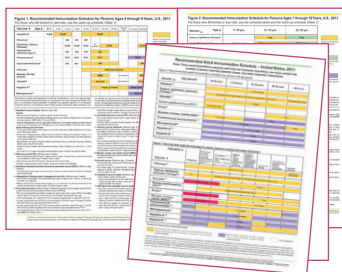


## Birth Dose Fact Sheet

- [Color version](#)
- [B&W version](#)

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

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



To order, visit [www.immunize.org/shop](http://www.immunize.org/shop), or use the order form on page 14.

For 20 or more copies, contact us for discount pricing: [admininfo@immunize.org](mailto:admininfo@immunize.org)

## Wallet-sized immunization record cards for all ages: For children & teens, for adults, and for a lifetime!



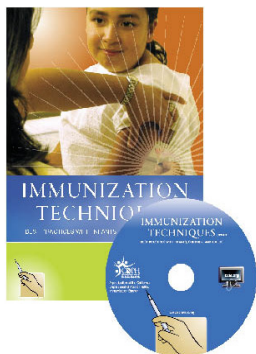
Now you can give any patient a permanent vaccination record card designed specifically for their age group: child & teen, adult, or lifetime. These brightly colored cards are printed on durable rip-, smudge-, and water-proof paper. To view the cards or for more details, go to [www.immunize.org/shop](http://www.immunize.org/shop)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

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

To order, visit [www.immunize.org/shop](http://www.immunize.org/shop), or use the order form on page 14.

To receive sample cards, contact us: [admininfo@immunize.org](mailto:admininfo@immunize.org)

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



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

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

To order, visit [www.immunize.org/shop](http://www.immunize.org/shop), or use the order form on page 14.

For 100 or more copies, contact us for discount pricing: [admininfo@immunize.org](mailto:admininfo@immunize.org)

For healthcare settings in California, contact your local health department immunization program for a free copy.

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# Vaccine Highlights

## Recommendations, schedules, and more

*Editor's note: The information in Vaccine Highlights is current as of August 29, 2013.*

### The next ACIP meetings

A committee of 15 national experts, the Advisory Committee on Immunization Practices (ACIP) advises CDC on the appropriate use of vaccines. ACIP meets three times a year in Atlanta; meetings are open to the public. The next two meetings will be held on Oct. 23–24, 2013, and Feb. 26–27, 2014. For more information, visit [www.cdc.gov/vaccines/acip/index.html](http://www.cdc.gov/vaccines/acip/index.html).

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 recently updated ACIP website at [www.cdc.gov/vaccines/hcp/acip-recs](http://www.cdc.gov/vaccines/hcp/acip-recs).

### Influenza vaccine news

On August 7, CDC posted "Summary Recommendations: Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—(ACIP)—United States, 2013–14" on its website. This document is a summary of the ACIP influenza vaccination recommendations for the 2013–2014 season. The full recommendations will be published in *MMWR* at a future date. To access the summary recommendations, go to [www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm](http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm).

On July 26, CDC issued two influenza vaccine VISs for use during the 2013–14 season. One is for inactivated influenza vaccine (IIV), the other for live attenuated influenza vaccine (LAIV). The VIS for IIV is intended for use with all inactivated formulations—trivalent, quadrivalent, cell-culture, recombinant, intradermal, and high-dose. To access the IIV VIS and its translations, go to [www.immunize.org/vis/vis\\_flu\\_inactive.asp](http://www.immunize.org/vis/vis_flu_inactive.asp). To access the LAIV VIS and its translations, go to [www.immunize.org/vis/vis\\_flu\\_live.asp](http://www.immunize.org/vis/vis_flu_live.asp).

### Pneumococcal vaccine news

On June 28, CDC published "Use of 13-Valent Pneumococcal Conjugate Vaccine and 23-Valent Pneumococcal Polysaccharide Vaccine Among

Children Aged 6–18 Years with Immunocompromising Conditions." It calls for routine use of 13-valent pneumococcal conjugate vaccine (PCV13; Prevnar 13, Wyeth) for children age 6–18 years with immunocompromising conditions, functional or anatomic asplenia, cerebrospinal fluid leaks, or cochlear implants who have not previously received PCV13. PCV13 should be administered to these children even if they have received the 7-valent pneumococcal conjugate vaccine (PCV7) or the 23-valent pneumococcal polysaccharide vaccine (PPSV23). Recommendations for PPSV23 use for children in this age group remain unchanged. To access the recommendations, see pages 521–524 of [www.cdc.gov/mmwr/pdf/wk/mm6225.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6225.pdf).

For a summary table from IAC, see [www.immunize.org/catg.d/p2019.pdf](http://www.immunize.org/catg.d/p2019.pdf).

### MMR vaccine news

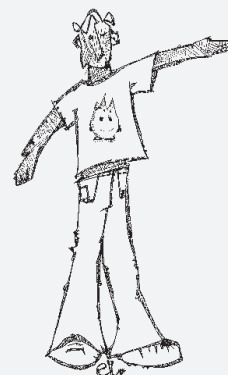
On June 14, CDC published ACIP recommendations titled *Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013*. The document summarizes recommendations made during 1998–2011 and adds revisions ACIP adopted in October 2012. These include changes in (1) acceptable evidence of immunity to measles and mumps, (2) age indication for MMR vaccination of people with HIV infection, and (3) measles postexposure prophylaxis. Access the recommendations at [www.cdc.gov/mmwr/pdf/rr/rr6204.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf).

### HPV vaccine news

On July 26, CDC published "Human Papillomavirus Vaccination Coverage Among Adolescent Girls, 2007–2012, and Postlicensure Vaccine Safety Monitoring, 2006–2013—United States." The article reported that 2012 was the first year that HPV vaccination coverage among adolescent girls did not increase from the previous year. Only 53.8% of girls had received 1 or more doses of HPV vaccine, and only 33.4% had received all 3 doses of the series. To access the article, see pages 591–595 of [www.cdc.gov/mmwr/pdf/wk/mm6229.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6229.pdf).

On May 17, CDC released an updated VIS for Gardasil human papillomavirus vaccine (HPV4; Merck). The only substantive change is the removal of language relating to Merck's pregnancy registry. To access the VIS for Gardasil and its translations, go to [www.immunize.org/vis/vis\\_hpv\\_gardasil.asp](http://www.immunize.org/vis/vis_hpv_gardasil.asp).

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### New and updated VISs

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

DTaP/DT/DTP ....	5/17/07	MMRV .....	5/21/10
Hepatitis A .....	10/25/11	PCV13 .....	2/27/13
Hepatitis B .....	2/2/12	PPSV .....	10/6/09
Hib .....	12/16/98	Polio .....	11/8/11
HPV (Cervarix) ....	5/3/11	Rabies .....	10/6/09
HPV (Gardasil) ....	5/17/13	Rotavirus .....	8/26/13
Influenza (LAIV) ...	7/26/13	Shingles .....	10/6/09
Influenza (TIV) ...	7/26/13	Td/Tdap .....	1/24/12
Japan. enceph. ....	12/7/11	Tdap .....	5/9/13
Meningococcal. ....	10/14/11	Typhoid .....	5/29/12
MMR .....	4/20/12	Varicella .....	3/13/08
Multi-vaccine VIS ...	11/16/12	Yellow fever ....	3/30/11

(for 6 vaccines given to infants/children: DTaP, IPV, Hib, HepB, PCV, RV)

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

Vaccine Highlights continued on top of page 5 ►

## Tdap vaccine news

On May 9, CDC released an updated VIS for Tdap vaccine. The VIS contains information about Tdap only (it does not cover Td). Changes in the VIS relate primarily to recommendations regarding use of Tdap during pregnancy. To access the new Tdap VIS and its translations, go to [www.immunize.org/vis/vis\\_tdap.asp](http://www.immunize.org/vis/vis_tdap.asp).

**Note:** When vaccinating patients with Td, providers should continue to use the 1/24/12 Td/Tdap VIS until a VIS dedicated exclusively to Td is available.

## Rotavirus vaccine news

On August 26, CDC released an updated rotavirus Vaccine Information Statement (VIS). The most significant change is in the estimated rate of intussusception following vaccination. Because this change concerns a potential adverse event, providers should begin using the new VIS immediately. To access the rotavirus VIS, go to [www.immunize.org/vis/vis\\_rotavirus.asp](http://www.immunize.org/vis/vis_rotavirus.asp). Translations will be available in the weeks to come.

## Rabies vaccine news

On June 6, CDC announced that the rabies vaccines RabAvert (Novartis) and Imovax (sanofi

pasteur) are available without restriction for pre-exposure and postexposure prophylaxis. Access continually updated information on CDC's Rabies Vaccine and Immune Globulin Availability web page at [www.cdc.gov/rabies/resources/availability.html](http://www.cdc.gov/rabies/resources/availability.html).

## VariZIG news

On July 19, CDC published "Updated Recommendations for Use of VariZIG—U.S., 2013." It states that the decision to administer VariZIG immune globulin for varicella postexposure prophylaxis depends on whether (1) the patient lacks evidence of immunity to varicella, (2) the exposure is likely to result in infection, and (3) the patient is at greater risk for varicella complications than the general population. For high-risk patients who have additional exposures to varicella-zoster virus 3 or more weeks after initial VariZIG administration, another dose of VariZIG should be considered. To access the ACIP recommendations, see pages 574–576 of [www.cdc.gov/mmwr/pdf/wk/mm6228.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6228.pdf).

## Injection safety news

On May 31, CDC published "Preventing Unsafe Injection Practices in the U.S. Health-Care Sys-

tem." It states the following: "Safe administration depends on adherence to the practices outlined in CDC's evidence-based Standard Precautions guideline. Health-care providers should never (1) administer medications from the same syringe to more than one patient, (2) enter a vial with a used syringe or needle, or (3) administer medications from single-dose vials to multiple patients. They also should maintain aseptic technique at all times and properly dispose of used injection equipment." To access the document, see pages 423–425 of [www.cdc.gov/mmwr/pdf/wk/mm6221.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6221.pdf).

## CDC Yellow Book for travel

In July, CDC made the 2014 edition of the Yellow Book (formally titled *CDC Health Information for International Travel*) available online and in print. To access the online and print versions, go to [wwwnc.cdc.gov/travel/page/yellowbook-home-2014](http://wwwnc.cdc.gov/travel/page/yellowbook-home-2014). Single-copy cost is approximately \$40.

Visit IAC's newly designed website  
for parents, adults, and teens,  
"Vaccine Information You Need"  
[www.vaccineinformation.org](http://www.vaccineinformation.org)

## The end of hepatitis B . . . cont. from p.1

- Failing to communicate test results to or within the hospital;
- Failing to vaccinate infants born to mothers with unknown HBsAg status within 12 hours of birth; and
- Failing to provide prophylaxis to newborns when the mother is known to be HBsAg-positive.

Infants whose mothers are HBsAg-negative can still be exposed after leaving the birthing facility through normal contact with hepatitis B-infected household members and other caregivers, some of whom may not be aware of their hepatitis B infection.

In 2011, the U.S. Department of Health & Human Services (HHS) echoed ACIP's recommendations in its action plan document titled *Combating the Silent Epidemic of Viral Hepatitis*. HHS further recommended birth dose coverage as a standard of care and a national quality measure. (See [www.hhs.gov/ash/initiatives/hepatitis/actionplan\\_viralhepatitis2011.pdf](http://www.hhs.gov/ash/initiatives/hepatitis/actionplan_viralhepatitis2011.pdf).)

And last year, the National Quality Forum endorsed a new standard that calls for reporting "Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge." (See [www.qualityforum.org/M MeasureDetails.aspx?actid=0&SubmissionId=2877#k=0475](http://www.qualityforum.org/M MeasureDetails.aspx?actid=0&SubmissionId=2877#k=0475).)

The centerpiece of the IAC campaign is a new, comprehensive guidebook, *Hepatitis B: What Hospitals Need to Do to Protect Newborns*. Endorsed by the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the Centers for Disease Control and Prevention, the guide contains a wide range of resources to help birthing institutions establish, implement, and optimize their hepatitis B birth dose policies.

The guidebook explains that universal hepatitis B vaccination is needed at birth because, in addition to preventing 70%–95% of transmission to infants born to HBsAg-positive mothers, it provides a safety net to prevent perinatal transmission when medical errors occur and it prevents household transmission to infants from infected family members and other caregivers.

To further promote the birth dose, IAC has created the Hepatitis B Birth Dose Honor Roll that recognizes birthing institutions that have attained high birth dose coverage rates. In addition, to be included on the honor roll, an organization must have written birth dose policies in place that contain certain specified provisions.

To download the guidebook and to access the honor roll, visit [www.immunize.org/protect-newborns](http://www.immunize.org/protect-newborns).

In summary, hepatitis B birth dose policies can end perinatal transmission at a birthing institution. The decision to adopt birth dose policies is a quality-of-care issue. Organizations that pursue every step available to ensure patient safety will implement strong birth dose policies, and they can be assured that IAC stands ready to support everyone working to *Give birth to the end of Hep B*.



### Hepatitis B Birth Dose Honor Roll

Recognizing hospitals and birthing centers that have attained high coverage rates for administering hepatitis B vaccine at birth.

✱ [learn more](#) ✱

# Give birth to the end of Hep B

FROM THE IMMUNIZATION ACTION COALITION



**Nearly one in three U.S. newborns leaves the hospital unprotected from life-threatening hepatitis B infection. As a result, approximately 800 U.S. newborns are chronically infected each year through perinatal exposure.**

A birth dose of HepB vaccine can prevent perinatal transmission – yet today, only 70% of U.S. infants receive the vaccine within three days of birth. That's why the Immunization Action Coalition (IAC) is urging hospitals and birthing centers to meet the national standard of care by providing a universal birth dose of HepB vaccine.

## Why should we give HepB vaccine to *all* newborns?

- **It prevents mother-to-infant transmission**  
Prevents 70%–95% of transmission to infants born to HBsAg-positive women
- **It prevents household transmission**  
Protects infants from infected family members and other caregivers
- **It provides protection if medical errors occur**  
Provides a safety net to prevent perinatal transmission when medical errors occur

## Why is a safety net needed? Because medical errors happen!

### Reported medical errors include:

- Ordering the wrong hepatitis B screening test
- Misinterpreting or mistranscribing hepatitis B test results
- Failing to communicate results to or within the hospital
- Not giving hepatitis B vaccine to infants born to mothers of unknown HBsAg status within 12 hours of birth
- Not giving prophylaxis to an infant even when the mother's HBsAg-positive status is documented

**To comply with the national standard of care from CDC and to meet the quality measure of the National Quality Forum, birthing institutions should:**

1. Implement the recommended “universal HepB vaccine birth dose policy,” by way of a standard newborn admission order. This ensures that every infant receives HepB vaccine at birth, no later than discharge from the birth unit.
2. Follow national recommendations for prophylaxis of infants born to women who are HBsAg positive or whose HBsAg status is unknown.
3. Measure and report the percentage of newborns who receive HepB vaccination before discharge.

### The HepB birth dose is recommended by the:

- American Academy of Family Physicians (AAFP)
- American Academy of Pediatrics (AAP)
- American College of Obstetricians and Gynecologists (ACOG)
- Centers for Disease Control and Prevention (CDC)

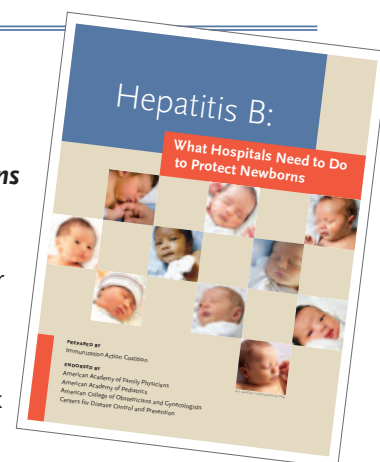
CDC's complete hepatitis B birth dose recommendations are found at [www.cdc.gov/mmwr/PDF/rr/rr5416.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf)



## IAC's complete guide

***Hepatitis B: What Hospitals Need to Do to Protect Newborns*** is a complete resource to help birthing institutions establish, implement, and optimize their birth dose policies.

Endorsed by AAFP, AAP, ACOG, and CDC, IAC's e-book breaks new ground as a policy and best practice guide for newborn hepatitis B immunization.



**Download the guide at [www.immunize.org/protect-newborns](http://www.immunize.org/protect-newborns)**



# Vaccinations for Pregnant Women

*The table below shows which vaccinations you should have to protect your health when you are pregnant. Make sure you and your healthcare provider keep your vaccinations up to date.*

Vaccine	Do you need it?
<b>Hepatitis A</b> (HepA)	<b>Maybe.</b> You need this vaccine if you have a specific risk factor for hepatitis A virus infection* or simply want to be protected from this disease. The vaccine is usually given in 2 doses, 6 months apart. It's safe to get this vaccine during pregnancy.
<b>Hepatitis B</b> (HepB)	<b>Maybe.</b> You need this vaccine if you have a specific risk factor for hepatitis B virus infection* or simply want to be protected from this disease. The vaccine is usually given in 3 doses, over a 6-month period. It's safe to get this vaccine during pregnancy. It's important, too, that your newborn baby gets started on his or her hepatitis B vaccination series before leaving the hospital.
<b>Human papillomavirus</b> (HPV)	<b>No.</b> This vaccine is not recommended to be given during pregnancy, but if you inadvertently receive it, this is not a cause for concern. HPV vaccine is recommended for all women age 26 years or younger, so make sure you are vaccinated before or after your pregnancy. The vaccine is given in 3 doses over a 6-month period.
<b>Influenza</b>	<b>Yes!</b> You need a flu shot every fall (or winter) for your protection and for the protection of others around you. It's safe to get the vaccine during pregnancy.
<b>Measles, mumps, rubella</b> (MMR)	<b>No.</b> The MMR vaccine is not recommended to be given during pregnancy, but if you inadvertently receive it, this is not a cause for concern. At least 1 dose of MMR vaccine is recommended for you if you were born in 1957 or later. (And you may need a second dose.*) It's best for you (and any future baby) to receive the protection vaccination provides before trying to conceive.
<b>Meningococcal</b> (MCV4, MPSV4)	<b>Maybe.</b> You need this vaccine if you have one of several health conditions, or if you are 19–21 and a first-year college student living in a residence hall and you either have never been vaccinated or were vaccinated before age 16.* It's safe to get the vaccine during pregnancy.
<b>Pneumococcal</b> (PCV13, PPSV23)	<b>Maybe.</b> You need this vaccine if you have a specific risk factor for pneumococcal disease, such as diabetes. If you're unsure of your risk, talk to your healthcare provider to find out if you need this vaccine.* It's safe to get the vaccine during pregnancy.
<b>Tetanus, diphtheria, and whooping cough</b> (pertussis) (Tdap, Td)	<b>Yes!</b> Women who are pregnant need a dose of Tdap vaccine (adult whooping cough vaccine) during each pregnancy, preferably during the third trimester. After that, you'll need a Td booster dose every 10 years. Talk to your healthcare provider if you haven't had at least 3 tetanus- and diphtheria-containing shots sometime in your life or if you have a deep or dirty wound.
<b>Varicella</b> (chickenpox) (VAR)	<b>No.*</b> Varicella vaccine is not recommended to be given during pregnancy, but if you inadvertently receive it, this is not a cause for concern. If you haven't been vaccinated or had chickenpox, it's best for you (and any future baby) to be protected with the vaccine before trying to conceive. If you were born in the U.S. in 1980 or later and have never had chickenpox or the vaccine, you need to get 2 doses 4–8 weeks apart.

\*Consult your healthcare provider to determine your level of risk for infection and your need for this vaccine.

If you will be traveling outside the United States, you may need additional vaccines. For information, consult your healthcare provider, a travel clinic, or the Centers for Disease Control and Prevention at [www.cdc.gov/travel](http://www.cdc.gov/travel).

# New! Easy-to-read handouts urge parents to get their children vaccinated

*Use these handouts to teach parents about the dangers of vaccine-preventable diseases and the value of vaccination*

**Chickenpox is a serious disease...**  
Make sure your child is protected!

**Hepatitis A is a serious disease...**  
Make sure your child is protected!

**Hib is a serious disease...**  
Make sure your child is protected!

**HPV is a serious disease...**  
Make sure your child is protected!

**Influenza is a serious disease...**  
Make sure your child is protected!

**Measles, mumps, and rubella are serious diseases...**  
Make sure your child is protected!

**Meningococcal disease is serious...**  
Make sure your child is protected!

**Hepatitis B is a serious disease...**  
Make sure your child is protected!

**Polio is a serious disease...**  
Make sure your child is protected!

**Rotavirus is a serious disease...**  
Make sure your child is protected!

**Whooping cough, tetanus, and diphtheria are serious diseases...**  
Make sure your child is protected!

**Pneumococcal disease is serious...**  
Make sure your child is protected!

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

1. Chickenpox is a serious disease...  
[www.immunize.org/catg.d/p4302.pdf](http://www.immunize.org/catg.d/p4302.pdf)
2. Hepatitis A is a serious disease...  
[www.immunize.org/catg.d/p4304.pdf](http://www.immunize.org/catg.d/p4304.pdf)
3. Hib is a serious disease...  
[www.immunize.org/catg.d/p4308.pdf](http://www.immunize.org/catg.d/p4308.pdf)
4. HPV is a serious disease...  
[www.immunize.org/catg.d/p4310.pdf](http://www.immunize.org/catg.d/p4310.pdf)
5. Influenza is a serious disease...  
[www.immunize.org/catg.d/p4312.pdf](http://www.immunize.org/catg.d/p4312.pdf)
6. Measles, mumps, and rubella are serious...  
[www.immunize.org/catg.d/p4314.pdf](http://www.immunize.org/catg.d/p4314.pdf)
7. Meningococcal disease is serious...  
[www.immunize.org/catg.d/p4316.pdf](http://www.immunize.org/catg.d/p4316.pdf)
8. Hepatitis B is a serious disease...  
[www.immunize.org/catg.d/p4306.pdf](http://www.immunize.org/catg.d/p4306.pdf)
9. Pneumococcal disease is serious...  
[www.immunize.org/catg.d/p4318.pdf](http://www.immunize.org/catg.d/p4318.pdf)
10. Polio is a serious disease...  
[www.immunize.org/catg.d/p4320.pdf](http://www.immunize.org/catg.d/p4320.pdf)
11. Rotavirus is a serious disease...  
[www.immunize.org/catg.d/p4322.pdf](http://www.immunize.org/catg.d/p4322.pdf)
12. Whooping cough, tetanus, diphtheria are serious...  
[www.immunize.org/catg.d/p4324.pdf](http://www.immunize.org/catg.d/p4324.pdf)





# Updated! Temperature logs for separate refrigerator and freezer vaccine storage units

## New! Troubleshooting record with instructions and examples of problems and corrective actions

**F° Temperature Log for Refrigerator – Fahrenheit** Month/Year \_\_\_\_\_ VFC PIN or other ID # \_\_\_\_\_ Page 1 of 3  
DAYS 1–15 Facility Name \_\_\_\_\_

**Monitor temperatures closely!**

- Write your initials below in "Staff Initials," and note the time in "Exact Time."
- Record temps twice each workday.
- Record the min/max temps once each workday – preferably in the morning.
- Put an "X" in the row that corresponds to the refrigerator's temperature.
- If any out-of-range temp, see instructions to the right.
- After each month has ended, save each month's log for 3 years, unless state/local jurisdictions require a longer period.

**Take action if temp is out of range – too warm (above 46°F) or too cold (below 35°F).**

- Label exposed vaccine "do not use" and store it under proper conditions as quickly as possible. Do not discard vaccines unless directed to by your state/local health department and/or the manufacturer(s).
- Record the out-of-range temps and the room temp in the "Action" area on the bottom of the log.
- Notify your vaccine coordinator, or call the immunization program at your state or local health department for guidance.
- Document the action taken on the "Vaccine Storage Troubleshooting Record" on page 3.

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Staff Initials															
Exact Time	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Min/Max Temp (once previous reading)															

### Refrigerator Storage Unit

Fahrenheit: [www.immunize.org/catg.d/p3037f.pdf](http://www.immunize.org/catg.d/p3037f.pdf)

Celsius: [www.immunize.org/catg.d/p3037c.pdf](http://www.immunize.org/catg.d/p3037c.pdf)

**F° Temperature Log for Freezer – Fahrenheit** Month/Year \_\_\_\_\_ VFC PIN or other ID # \_\_\_\_\_ Page 1 of 3  
DAYS 1–15 Facility Name \_\_\_\_\_

**Monitor temperatures closely!**

- Write your initials below in "Staff Initials," and note the time in "Exact Time."
- Record temps twice each workday.
- Record the min/max temps once each workday – preferably in the morning.
- Put an "X" in the row that corresponds to the freezer's temperature.
- If any out-of-range temp, see instructions to the right.
- After each month has ended, save each month's log for 3 years, unless state/local jurisdictions require a longer period.

**Take action if temp is out of range – too warm (above 5°F) or too cold (below -5°F).**

- Label exposed vaccine "do not use" and store it under proper conditions as quickly as possible. Do not discard vaccines unless directed to by your state/local health department and/or the manufacturer(s).
- Record the out-of-range temps and the room temp in the "Action" area on the bottom of the log.
- Notify your vaccine coordinator, or call the immunization program at your state or local health department for guidance.
- Document the action taken on the "Vaccine Storage Troubleshooting Record" on page 3.

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Staff Initials															
Exact Time	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Min/Max Temp (once previous reading)															

### Freezer Storage Unit

Fahrenheit: [www.immunize.org/catg.d/p3038f.pdf](http://www.immunize.org/catg.d/p3038f.pdf)

Celsius: [www.immunize.org/catg.d/p3038c.pdf](http://www.immunize.org/catg.d/p3038c.pdf)

### Vaccine Storage Troubleshooting Record (check one) ☐ Refrigerator ☐ Freezer

Use this form to document any unacceptable vaccine storage event, such as exposure of refrigerated vaccines to temperatures that are outside the manufacturers' recommended storage ranges. A fillable troubleshooting record (i.e., editable PDF or WORD document) can also be found at [www.immunize.org/clinic/storage-handling.asp](http://www.immunize.org/clinic/storage-handling.asp).

Date & Time of Event	Storage Unit Temperature	Room Temperature	Person Completing Report
Date: _____ Time: _____	Temp when discovered: _____	Temp when discovered: _____	Name: _____
	Maximum temp: _____	Comment (optional): _____	Title: _____
<b>Description of Event</b> (If multiple, related events occurred, list each date, time, and length of time out of storage.) <ul style="list-style-type: none"> <li>General description (i.e., what happened?)</li> <li>Estimated length of time between event and last documented reading of storage temperature in acceptable range (32° to 46°F [1° to 8°C] for refrigerator; -5° to 5° [-20° to -15°C] for freezer)</li> <li>Inventory of affected vaccines, including (1) lot #s and (2) whether purchased with public (for example, VFC) or private funds (Use separate sheet if needed, but maintain the inventory with this troubleshooting record)</li> <li>At the time of the event, what else was in the storage unit? For example, were there water bottles in the refrigerator and/or frozen coolant packs in the freezer?</li> <li>Prior to this event, have there been any storage problems with this unit and/or with the affected vaccine(s)?</li> <li>Include any other information you feel might be relevant to understanding the event.</li> </ul>			
<b>Action Taken</b> (Document thoroughly. This information is critical to determining whether the vaccine might still be viable!) <ul style="list-style-type: none"> <li>When were the affected vaccines placed in proper storage conditions? (Note: Do not discard the vaccine. Store exposed vaccine in proper conditions and label it "do not use" until after you can discuss with your state/ local health department and/or the manufacturer(s).)</li> <li>Who was contacted regarding the incident? (For example, supervisor, state/local health department, manufacturer—list all)</li> <li>IMPORTANT: What did you do to prevent a similar problem from occurring in the future?</li> </ul>			
<b>Results</b> <ul style="list-style-type: none"> <li>What happened to the vaccine? Was it able to be used? If not, was it returned to the distributor? (Note: For public-purchase vaccine, follow your state/local health department instructions for vaccine disposition.)</li> </ul>			

DISTRIBUTED BY THE IMMUNIZATION ACTION COALITION 1573 Selby Avenue • St. Paul, MN 55104 • 651-647-9009 • [www.immunize.org](http://www.immunize.org) • [www.vaccineinformation.org](http://www.vaccineinformation.org) Technical content reviewed by the Centers for Disease Control and Prevention [www.immunize.org/catg.d/p3041.pdf](http://www.immunize.org/catg.d/p3041.pdf) • Item #P3041 (8/13)

...of the event, what ...  
...to this event, have there been any ...  
Include any other information you feel mig...

At 8 am on Monday (6/24/13) we  
readings as high as 52°, 50°, 49° &  
taken every 30 min on calibrated dis

Total time out of range: approximately  
Inventory of vaccines: see attached  
Water bottles in refrigerator door. No vac  
weekend may have affected power.

**Action Taken** (Document thoroughly. This information  

- When were the affected vaccines placed in proper storag
- state/local health department and/or the manufacturer
- Who was contacted regarding the incident? (For exam
- IMPORTANT: What did you do to prevent a similar p

Vaccines currently stored appropriat  
My State Immunization Program  
cine to remain quarantined unt  
ed electric company and  
refrigerator

► New troubleshooting record! Fill in electronically (as fillable PDF) or by hand. Additional pages include examples of how this can be filled in.

Fillable PDF: [www.immunize.org/catg.d/p3041.pdf](http://www.immunize.org/catg.d/p3041.pdf)

**Here are standing orders for child, teen, and adult vaccinations**  
*Click blue text to view standing orders documents*

**10 NEEDLE TIPS** • September 2013 • Immunization Action Coalition • (651) 647-9009 • [www.immunize.org](http://www.immunize.org) • [www.vaccineinformation.org](http://www.vaccineinformation.org)

# Influenza Vaccine Products for the 2013–2014 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation) <sup>1</sup>	How Supplied	Mercury Content (µg Hg/0.5mL)	Age Group	Product Code
CSL Limited	Afluria (IIV3)	0.5 mL (single-dose syringe)	0	9 years & older <sup>2</sup>	90656
		5.0 mL (multi-dose vial)	24.5		90658 Q2035 (Medicare)
GlaxoSmithKline	Fluarix (IIV3)	0.5 mL (single-dose syringe)	0	3 years & older	90656
	Fluarix (IIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686
ID Biomedical Corp. of Quebec, a subsidiary of GlaxoSmithKline	FluLaval (IIV3)	5.0 mL (multi-dose vial)	<25	18 years & older	90658 Q2036 (Medicare)
MedImmune	FluMist (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	90672
Novartis	Fluvirin (IIV3)	0.5 mL (single-dose syringe)	≤1	4 years & older	90656
		5.0 mL (multi-dose vial)	25		90658 Q2037 (Medicare)
	Flucelvax (ccIIV3)	0.5 mL (single-dose syringe)	0	18 years & older	90661
Protein Sciences Corp.	Flublok (RIV3)	0.5 mL (single-dose vial)	0	18 through 49 years	90673 Q2033 (Medicare)
sanofi pasteur	Fluzone (IIV3)	0.25 mL (single-dose syringe)	0	6 through 35 months	90655
		0.5 mL (single-dose syringe)	0	3 years & older	90656
		0.5 mL (single-dose vial)	0	3 years & older	90656
		5.0 mL (multi-dose vial)	25	6 through 35 months	90657
		5.0 mL (multi-dose vial)	25	3 years & older	90658 Q2038 (Medicare)
	Fluzone (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months	90685
		0.5 mL (single-dose syringe)	0	3 years & older	90686
		0.5 mL (single-dose vial)	0	3 years & older	90686
	Fluzone High-Dose (IIV3)	0.5 mL (single-dose syringe)	0	65 years & older	90662
	Fluzone Intradermal (IIV3)	0.1 mL (single-dose microinjection system)	0	18 through 64 years	90654

## FOOTNOTES

1. IIV3 = egg-based and cell culture-based trivalent inactivated influenza vaccine (injectable); where necessary to refer to cell culture-based vaccine, the prefix “cc” is used (e.g., ccIIV3). IIV4 = egg-based quadrivalent inactivated influenza vaccine (injectable); LAIV4 = egg-based quadrivalent live attenuated influenza vaccine (nasal spray); RIV3 = trivalent recombinant hemagglutinin influenza vaccine (injectable).

2. On August 6, 2010, ACIP recommended that Afluria not be used in children younger than age 9 years. If no other age-appropriate IIV is available, Afluria may be considered for a child age 5 through 8 years at high risk for influenza complications, after risks and benefits have been discussed with the parent or guardian. Afluria should not be used in children younger than age 5 years. This recommendation continues for the 2013–2014 influenza season.



IAC's  
"Ask the  
Experts"  
team  
from  
CDC



Andrew T. Kroger, MD, MPH



Donna L. Weaver, RN, MN



Iyabode Akinsanya-Beysolow, MD, MPH

mation about these numerous products, their age indications, CPT and Q codes, and other details. Access it at [www.immunize.org/catg.d/p4072.pdf](http://www.immunize.org/catg.d/p4072.pdf).

**What are the differences in trivalent and quadrivalent influenza vaccines?**

Most of the influenza vaccine offered for the 2013–2014 season will be trivalent (three components), containing two A viruses and one of the B viruses. The 2013–2014 trivalent influenza vaccine is made from the following three viruses:

- A/California/7/2009 (H1N1)pdm09-like virus
- A(H3N2) virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011
- B/Massachusetts/2/2012-like virus

A limited quantity of seasonal influenza vaccine will be quadrivalent (four components), containing two A viruses and two B viruses. The quadrivalent vaccines will contain the three viruses listed above, plus a B/Brisbane/60/2008-like virus.

**If quadrivalent vaccine includes one additional strain, why isn't it preferred for use over trivalent vaccines in ACIP's 2013–14 influenza recommendations?**

Even though both influenza B viruses are likely to cause disease during an influenza season, for trivalent vaccine, experts had to choose between the two very different B viruses to pair with the two A viruses. The quadrivalent vaccine that will be available for the 2013–14 season includes both B viruses. However, while quadrivalent vaccines may eventually replace trivalent vaccines, it is anticipated that during the coming season only a limited quantity of quadrivalent vaccine will be available. Consequently, ACIP does not express a preference for use of one type of influenza vaccine over another type (i.e., live over inactivated, or quadrivalent over trivalent) for persons for

whom more than one type of vaccine is indicated and available.

**I heard there was a new influenza vaccine that can be given to people with severe egg allergies. Is that true?**

If someone has a severe allergy to eggs with symptoms suggestive of anaphylaxis, CDC recommends referring patients to a provider experienced in managing allergy. Only inactivated influenza vaccines should be given in this circumstance. If the severe allergy to eggs is diagnosed as anaphylactic allergy, and the patient is age 18 through 49 years, then the provider can consider using Flublok, the one inactivated influenza vaccine that is egg-free. FDA licensed Flublok, a trivalent influenza vaccine, in January 2013. Unlike current production methods for other available seasonal influenza vaccines, production of Flublok does not use the whole influenza virus or chicken eggs in its manufacturing process.

Flublok has a shorter shelf life than other currently available inactivated influenza vaccines. It expires 16 weeks from the production date. Other currently available inactivated influenza vaccines expire on June 30, 2014.

You can find additional information about Flublok at [www.cdc.gov/flu/protect/vaccine/qa\\_flublok-vaccine.htm](http://www.cdc.gov/flu/protect/vaccine/qa_flublok-vaccine.htm).

**How many doses of vaccine are recommended for children younger than 9 years who are receiving influenza vaccine for the first time?**

In settings where adequate vaccination history from prior to the 2010–2011 season is unavailable, children 6 months through 8 years of age need only 1 dose of vaccine in 2013–2014 if they received a total of 2 or more doses of seasonal vaccine since July 1, 2010. Children who did not receive a total of 2 or more doses of seasonal vaccine since July 1, 2010, require 2 doses in 2013–2014. In settings where adequate vaccination history from prior to the 2010–2011 season is available, an alternate approach may be used. This is the alternate approach: If a child age 6 months through 8 years is known to have received at least 2 doses of seasonal influenza vaccine during any prior season, and at least 1 dose of a 2009 (H1N1)-containing vaccine—i.e., either 2010–2011, 2011–2012, or

2012–2013 seasonal vaccine or the monovalent (H1N1) 2009 vaccine—then the child needs only 1 dose for 2013–2014. Otherwise the child needs 2 doses for the 2013–2014 season.

**Can a child who needs 2 doses of influenza receive 1 dose of quadrivalent vaccine and 1 dose of trivalent vaccine?**

Yes. You can give these two vaccines, as long as the 2 doses are appropriately spaced.

**Does ACIP recommend one influenza product over another for pregnant women?**

Pregnant women can receive any of the inactivated vaccines. They should not be given the live quadrivalent attenuated influenza vaccine (FluMist, MedImmune, LAIV4).

**Why is a higher dose influenza vaccine (Fluzone High-Dose) available for adults 65 and older?**

Aging decreases the body's ability to develop a good immune response after getting influenza vaccine, which places older people at greater risk of severe illness from influenza. A higher dose of antigen in the vaccine should give older people a better immune response and therefore provide better protection against influenza. Data from clinical trials comparing Fluzone to Fluzone High-Dose among people age 65 and older indicate that a stronger immune response (i.e., higher antibody levels) occurs after vaccination with Fluzone High-Dose. Whether the improved immune response leads to greater protection against influenza disease after vaccination is not yet known. A study designed to determine how effective Fluzone High-Dose is in preventing illness from influenza, when compared with standard-dose Fluzone, is expected to be completed in 2014–2015.

CDC has stated no preference for using high-dose influenza vaccine or standard-dose influenza vaccine when vaccinating people age 65 and older. CDC stresses that vaccination is the first and most important step in protecting against influenza.

**If a patient is undergoing treatment for cancer, is it safe to vaccinate her or him against influenza?**

People with cancer need to be protected from influenza, and they can and should receive inactivated influenza vaccine (not LAIV) even if they are immunosuppressed. Cancer patients and survivors are at higher risk for complications from flu, including hospitalization and death.

Here is a helpful CDC web page on cancer and influenza for patients: [www.cdc.gov/cancer/flu](http://www.cdc.gov/cancer/flu).

## Tdap vaccine

**If a woman received Tdap in early pregnancy, should she get it again in the third trimester?**

No, it is not recommended to give another dose of Tdap in such cases. Optimal timing for Tdap

### Needle Tips correction policy

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

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administration is between 27 and 36 weeks' gestation because of transplacental antibody kinetics.

According to ACIP recommendations published in *MMWR* on February 22, 2013, "Tdap may be administered any time during pregnancy, but vaccination during the third trimester would provide the highest concentration of maternal antibodies to be transferred closer to birth." More information is available at [www.cdc.gov/mmwr/preview/mmwrhtml/mm6207a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6207a4.htm).

**Each time there is a pregnancy in the family, should fathers and other family members receive a Tdap booster to ensure adequate protection and boost the cocoon effect to protect the newborn from pertussis?**

At this time, ACIP does not recommend additional doses of Tdap for fathers or other family members/caregivers. The multiple Tdap recommendation to optimize immunity for the infant applies only to the pregnant woman.

**A pertussis outbreak is occurring in our town, with many cases happening in the schools. Is there a recommendation for boosting middle- and high-school students with an additional dose of Tdap during an outbreak if students have already had 1 dose?**

Currently, ACIP recommends only 1 lifetime dose of Tdap for everyone except pregnant women.

In light of the ongoing pertussis outbreaks in the nation, ACIP is continuing to evaluate the need for additional pertussis protection. The Immunization Action Coalition always announces new ACIP recommendations in its free weekly electronic newsletter, *IAC Express*. If you're not already one of the newsletter's nearly 50,000 subscribers, you can sign up at [www.immunize.org/subscribe](http://www.immunize.org/subscribe).

## Pneumococcal vaccine

**Currently, ACIP recommends pneumococcal polysaccharide (PPSV23) for smokers age 19–64 years. Should we also vaccinate 16-year-olds who smoke?**

No. Currently no data exist to indicate that people younger than 19 are at increased risk of pneumococcal disease.

**Rather than giving pneumococcal conjugate vaccine (PCV13) first and waiting 8 weeks to**

**give PPSV as recommended for an immunocompromised child (2 years+) or adult patient, we inadvertently gave both vaccines at the same visit. We are looking for guidance.**

When these two vaccines are given simultaneously, each probably affects the other detrimentally. The risk of diminished responsiveness (which is "caused" by PPSV23, not PCV13) means that you should count the PPSV23 dose as valid for adults, and repeat the PCV13 dose 1 year after the PPSV23 dose was administered. You should count the PPSV23 dose as valid for children, and repeat the PCV13 dose 8 weeks after the PPSV23 dose was administered and complete the series as age appropriate.

## Rotavirus vaccine

**What is the latest on rotavirus vaccination and intussusception?**

Some, but not all, studies suggest that RotaTeq and Rotarix vaccines may possibly cause a small increase in the risk of intussusception. It is possible that an estimated one to three U.S. infants out of 100,000 might develop intussusception within 7 days of getting their first dose of rotavirus vaccine. That means 40 to 120 vaccinated U.S. infants might develop intussusception each year.

The benefits of rotavirus vaccines in preventing hospitalizations and deaths from rotavirus illness far outweigh the small possible risk of intussusception. Rotavirus vaccines prevent more than 65,000 U.S. hospitalizations from rotavirus illness each year. CDC continues to recommend routine rotavirus vaccination of U.S. infants. More information can be found on this issue at [www.cdc.gov/vaccinesafety/vaccines/rotavsb.html](http://www.cdc.gov/vaccinesafety/vaccines/rotavsb.html).

## HPV vaccine

**Why did Merck discontinue the registry for collecting reports of pregnant women who inadvertently received its HPV vaccine (Gardasil) during pregnancy?**

Because HPV vaccine is not recommended for use during pregnancy, Merck facilitated a registry to document outcomes when its HPV vaccine (Gardasil) was inadvertently administered to pregnant women. This registry was ongoing for more than

6 years (June 2006 –April 2013), and Merck has fulfilled its FDA obligation to facilitate it. But more importantly, the data from the registry are reassuring with respect to safety after pregnancy exposures. Review of the data collected during the first 5 years of the registry does not support a causal relationship between HPV vaccine and birth defects.

## Vaccine information statements

**Why does CDC include 2D barcodes on VISs now?**

As part of a modernization initiative, CDC began adding barcodes to VISs in April 2012. The addition of the barcode is intended primarily to help immunization providers save time by allowing them to scan certain required information about the VIS (e.g., the name and edition date of the VIS) into an electronic medical record, immunization information system, or other electronic database. Scanning the barcode instead of manually recording the information is optional.

Using barcodes requires a 2D barcode scanner and software that is programmed to accept and process data contained in the VIS barcodes. Providers may continue to use any VISs they printed before CDC started adding barcodes as long as the VIS content is otherwise the same. See the next question for more information about discarding old VISs. For more information about barcodes and scanning, visit [www.cdc.gov/vaccines/hcp/vis/barcodes.html](http://www.cdc.gov/vaccines/hcp/vis/barcodes.html).

**It seems CDC is changing the format of VISs. Do we have to throw our old supply away and use the new ones?**

Not necessarily. CDC is in the process of re-releasing all VISs in a slightly modified format. The modified VISs have a consistent look and use consistent language in the sections common to all VISs. Modified VISs will not necessarily be new, but may simply be redesigned versions of existing VISs and have the same edition dates as existing VISs. Providers do not need to discard their existing VIS stocks when nothing but the VIS format has been changed. CDC posts information on its website to alert healthcare providers when the older version of a VIS should not be used. This information is available on CDC's web section titled What's New with VISs, available at [www.cdc.gov/vaccines/hcp/vis/what-is-new.html](http://www.cdc.gov/vaccines/hcp/vis/what-is-new.html).

**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.

To receive "Ask the Experts" Q&As by email, subscribe to the Immunization Action Coalition's news service, *IAC Express*. Special "Ask the Experts" issues are published five times per year.

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