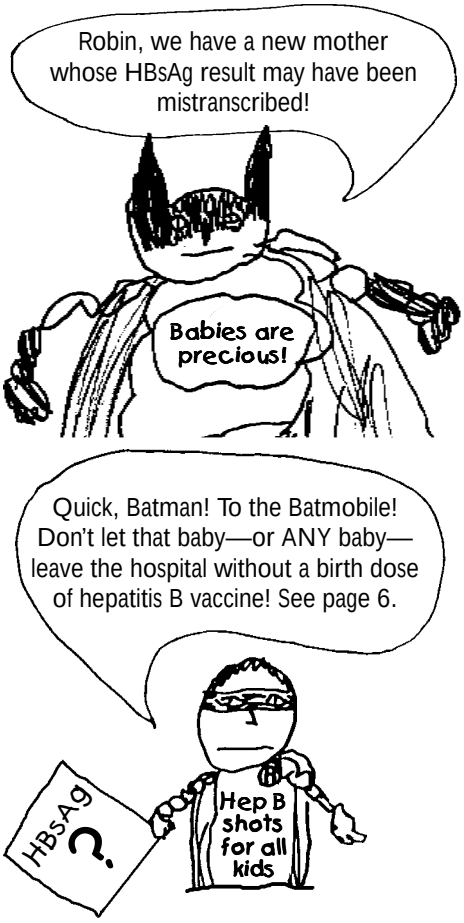
Volume 11 - Number 2 Fall/Winter 2001–2002

NEEDLE TIPS

and the Hepatitis B Coalition News

Published by the Immunization Action Coalition for individuals and organizations concerned about vaccine-preventable diseases



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Join the Immunization Action Coalition Today!

A $60 annual membership will help support the Coalition ***plus*** you will receive a complete packet of all our printed materials! 28

Ask the Experts

Editor's note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH; Harold S. Margolis, MD; and Linda A. Moyer, RN, of the Centers for Disease Control and Prevention (CDC) for answering the following questions for our readers. Dr. Atkinson, medical epidemiologist at the National Immunization Program, and Dr. Margolis, Director, Division of Viral Hepatitis, serve as CDC liaisons to the Coalition. Ms. Moyer is an epidemiologist at the Division of Viral Hepatitis.

Immunization questions?

- E-mail nipinfo@cdc.gov
- Call your state health department (phone numbers on page 23)
- Call CDC's Immunization Information Hotline at (800) 232-2522

General vaccine questions

by William L. Atkinson, MD, MPH

What are the risks of not aspirating prior to an IM or SQ vaccination?

Aspiration prior to injection is intended to reduce the risk of injecting vaccine into a vein or artery. Although aspiration is recommended by some experts, there are few data that support the need to aspirate.

Please describe options for how to administer five injections to an infant in a single visit.

Many infants will need hepatitis B, pneumococcal conjugate, Hib, DTaP, and IPV vaccines at the 2-, 4-, and 6-month visits. Hepatitis B, pneumococcal conjugate, Hib, and DTaP vaccines must be administered intramuscularly in the anterolateral thigh, which means two IM injections in each leg. A reasonable approach is to separate the two vaccines most likely to cause local reactions—DTaP and pneumococcal conjugate vaccines—into different legs. Hepatitis B and Hib vaccines can be given separately in either leg, or as a single Comvax injection. IPV can be given by either intramuscular or subcutaneous injection. If given by SC injection it can be given in the triceps area of the arm or into the adipose tissue of the thigh.

I've heard that multidose vaccine vials should be disposed of after being open for 30 days. Is this true?

No. Multidose vials may be used through the expiration date printed on the label or box as long as the vaccine is not visibly contaminated.

What is meant by "minimum intervals" between vaccine doses?

Vaccination schedules are generally determined by clinical trials, usually prior to licensure of the

(continued on page 17)

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NEEDLE TIPS

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Hepatitis B Coalition

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IAC EXPRESS is the Coalition's e-mail news and announcement service. To sign up for this service, send an e-mail message to express@immunize.org with the word SUBSCRIBE in the "Subject:" field.

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

The Hepatitis B Coalition, a program of IAC, promotes hepatitis B vaccination for all children 0–18 years; HBsAg screening for all pregnant women; testing and vaccination for high-risk groups; and education and treatment for people chronically infected with hepatitis B.

Letters to the Editor

Editor's note: IAC welcomes letters of interest to readers. Please send your letters by mail, fax, or e-mail to the address in the box at the left.

California Immunization Branch thanks IAC for video promotion

We are pleased to see that the Immunization Action Coalition has been informing health care providers about our new video, "Immunization Techniques: Safe, Effective, Caring."

As a nursing consultant in the immunization arena, I have been concerned that many of the "local side-effects" of inactivated vaccines may be directly related to injections with a needle too short to reach the muscle, inappropriate site selection, a needle gauge that is bigger than it needs to be, and/or prolonged or exaggerated aspiration techniques. Proper technique makes a difference.

The need for current immunization technique-specific training materials has been widely apparent. Immunization programs throughout the country have found that the Vaccines For Children (VFC) program opened a door for information and training to the office staff who give the majority of immunizations. Both VFC provider enthusiasm and anecdotal VFC quality assurance reports indicate a critical need for training materials. We hope our video and other products will help fill this recognized training gap.

—Sandra Jo Hammer, PHN, MSN, MPH
Nurse Consultant III, Immunization Branch
California Department of Health Services

Editor's note: IAC distributes the new video "Immunization Techniques" (see ad on page 3). To order the complete suite of materials, including posters, visit California Distance Learning Health Network at www.cdlhn.com or call (619) 594-3348.

"Unprotected People" stories help put a "face" on disease

I wanted to take a minute and thank you for all the information available through your website. I use it frequently and share information with co-workers, area immunization providers, and the general public. I am impressed with the variety of materials.

Last week, I was asked to speak to a community health class at our local university on immunizations. During my talk, I read to them excerpts of "Unprotected People" as a way of putting a "face" on the problem of immunization complacency. The stories were very effective! Many of the young adult students, who are inexperienced with vaccine preventable diseases, were initially resistant to multiple vaccinations, but they began to reconsider as they learned of the devastations that can occur.

Thanks for your efforts. You make my job easier!

—Donna Needham, RN
Communicable Disease Program Manager
Chattanooga-Hamilton Co. Health Department, TN

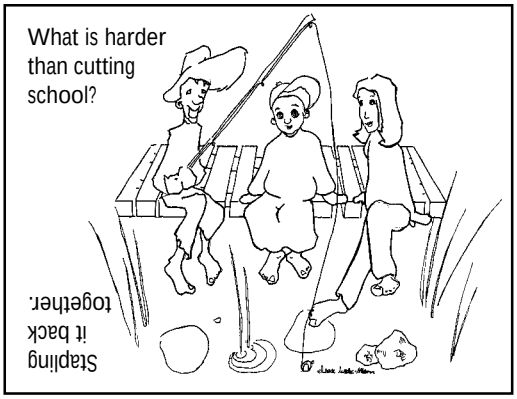
Vaccine Education Center offers readers new vaccine safety video

I want to let *NEEDLE TIPS* readers know that the Vaccine Education Center has recently produced a 27-minute video titled *Vaccines: Separating Fact from Fear*. The video addresses questions such as "Are vaccines safe?", "Do children get too many shots?", and "Do vaccines cause autism, diabetes, or multiple sclerosis?" We have now distributed about 16,000 copies of the video. The response has been generous, enthusiastic, and favorable.

Two copies of the video are provided to all practicing health professionals free of charge and can be ordered from the Center in the following ways: 1) call (215) 590-9990; 2) e-mail vaccines@email.chop.edu; or 3) access our website at www.vaccine.chop.edu and select "ordering information."

The Vaccine Education Center at Children's Hospital of Philadelphia was created in October 2000 to provide parents and health-care professionals with accurate, up-to-date, science-based information about vaccines. The Center is funded by an endowed chair from the Children's Hospital of Philadelphia, Josiah Macy, Jr. Foundation, and the Toys R Us Children's Fund and does *not* receive funds from pharmaceutical companies.

— Paul A. Offit, MD
Director, Vaccine Education Center
Chief, Section of Infectious Diseases
Children's Hospital of Philadelphia



If you vaccinate children or adults, you need this new video!

"Immunization Techniques: Safe, Effective, Caring"

developed by

California Dept. of Health Services Immunization Branch, 2001

Every clinic in the United States that delivers vaccination services should have a copy of this **brand-new** 35-minute video available for staff members. Each video comes with presenter's notes and includes a skills checklist.

Order online at www.immunize.org/iztech

Ordering Information

Item	Qty.	Unit Price	Total
Immunization Techniques: 1-10 copies @ $15 ea		$15 each	
Immunization Techniques: 11-100 copies @ $12 ea		$12 each	
Immunization Techniques: 101-500 copies @ $9 ea		$ 9 each	
For quantities over 500, please call (651) 647-9009.			
		Balance Due	

(Please minimize use of abbreviations and print clearly.)

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Organization: _____ Dept: _____

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Method of payment: ❑ **Check enclosed** ❑ **Purchase order #** _____

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Card # | | | | | | | | | | | | | | | |

You may fax your order to (651) 647-9131.

Vaccine highlights

Latest recommendations and schedules

The next ACIP meetings

Editor's note: The information on these pages is current as of November 14, 2001.

The Advisory Committee on Immunization Practices (ACIP) is a committee of 10 national experts that provides advice and guidance to CDC regarding the most appropriate use of vaccines and immune globulins. ACIP meetings are held three times a year in Atlanta, Ga., and are open to the public. The next meetings will be held February 20–21 and June 20–21, 2002.

ACIP statements

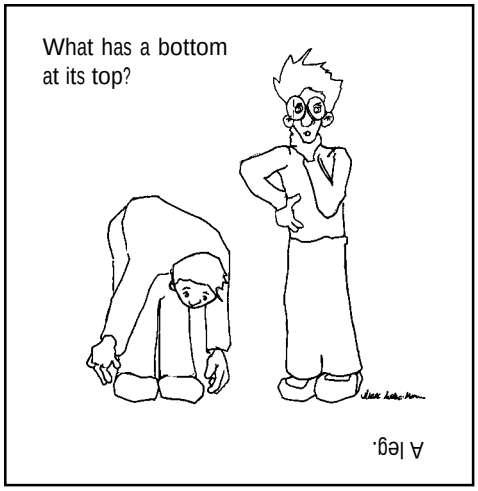
No clinic should be without a set of these public health recommendations on vaccines, which are published in the *Morbidity and Mortality Weekly Report (MMWR)*. Continuing education credits (CMEs, CEUs, CNEs) are available for reading the statement and completing the brief test at the end of the statement.

To get a complete set of ACIP statements or just the ones you want:

- Download individual statements from CDC's website: www.cdc.gov/mmwr
- Visit IAC's website to download individual statements: www.immunize.org/acip
- E-mail your request to nipinfo@cdc.gov
- Call CDC's Immunization Hotline at (800) 232-2522.
- Call your state's immunization program (phone numbers on page 23).
- Request them from your medical library.

Recently published ACIP statements:

- "Vaccinia (Smallpox) Vaccine" (June 22, 2001)
- "Prevention and Control of Influenza" (April 20, 2001)



Hepatitis A & B vaccine news

On October 17, 2001, the Advisory Committee on Immunization Practices (ACIP) voted to change its recommendation regarding the timing of the first dose of hepatitis B vaccination for infants of low-risk women. ACIP voted to recommend a birth dose of hepatitis B vaccine for all infants, which means that the first dose of hepatitis B vaccine should be administered between birth and hospital discharge. Only for infants of mothers whose HBsAg test is assured to be negative does ACIP now consider allowing administration of the first dose as late as 2 months of age.

Infants of HBsAg-positive mothers and infants of mothers whose HBsAg status at the time of delivery is unknown should still be given HBIG and hepatitis B vaccine or just hepatitis B vaccine, respectively, within 12 hours of birth.

The ACIP vote will become an official recommendation upon publication in the Recommended Childhood Immunization Schedule for 2002, which will appear in *MMWR* in January.

On May 11, 2001, the FDA licensed Twinrix, a combination hepatitis A and hepatitis B vaccine manufactured by GlaxoSmithKline. This vaccine contains 20mcg/ml of HBsAg protein and 720 Elisa Units of inactivated hepatitis A virus. It is licensed for use in persons 18 years of age and older who have an indication for both hepatitis A and B vaccines. It is recommended for administration on a 0-, 1-, 6-month schedule.

Pneumococcal vaccine news

On September 14, 2001, "Decreased Availability of Pneumococcal Conjugate Vaccine" was published in *MMWR*. Deliveries of Prevnar were delayed in August 2001, creating shortages for some health care providers and health departments. Until supplies are fully replenished, CDC recommends that all providers defer the vaccination of children >2 years except those aged 2–5 years who are at increased risk. Catch-up vaccinations for healthy children aged 1–2 years and booster doses for healthy children who have completed the primary series may be deferred. Records should be kept so that the deferred vaccinations can be given when vaccine becomes available.

Rubella vaccine news

On July 13, 2001, "Control and Prevention of Rubella: Evaluation and Management of Suspected Outbreaks, Rubella in Pregnant Women, and Surveillance for Congenital Rubella Syndrome" was published in *MMWR* (vol. 50, no. RR-12). Outbreaks of rubella continue to occur in the U.S. despite widespread use of the measles-mumps-rubella (MMR) vaccine. Throughout the mid- to late-1990s, rubella outbreaks were characterized by increased numbers of cases among adults born in countries that do not have or have only recently instituted a national rubella vaccination program. A link to this document is available on IAC's website: www.immunize.org/acip

Td vaccine news

On May 25, 2001, "Deferral of Routine Booster Doses of Tetanus and Diphtheria Toxoids for Adolescents and Adults" was published in *MMWR*. A shortage of tetanus and diphtheria toxoids (Td) and tetanus toxoid (TT) in the United States occurred because one of only two manufacturers discontinued production of tetanus toxoid-containing products. Aventis Pasteur has increased production of Td to meet national needs; however, because 11 months are required for vaccine production, the shortage is expected to last for the remainder of 2001. To assure vaccine availability for priority indications, all routine Td boosters in

adolescents and adults should be delayed until 2002. Td use should follow existing recommendations for all other indications.

Smallpox vaccine news

On June 22, 2001, "Vaccinia (Smallpox) Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001" was published in *MMWR*. The revised recommendations update those from 1991 and include current information regarding nonemergency use of vaccinia vaccine among laboratory and health care workers.

National Iz. Survey data

On Aug. 3, 2001, "National, State, and Urban Area Vaccination Coverage Levels Among Children Aged 19–35 Months—United States, 2000" was published in *MMWR*. According to the article, during the year 2000 significant vaccination coverage increases were reported on the national level for varicella and hepatitis B. During 2000, coverage with one dose of varicella vaccine increased from 57.5% in 1999 to 67.8%, and coverage with three doses of hepatitis B vaccine increased from 88.1% in 1999 to 90.3%. Small but statistically significant decreases were reported for both three and four doses of DTaP and/or DTP. Vigilance is needed to maintain high levels of vaccination.

On June 29, 2001, "Influenza and Pneumococcal Vaccination Levels Among Persons Aged 65 Years and Older—United States, 1999" was published in *MMWR*. According to CDC, the U.S. influenza vaccination coverage rate among adults aged 65 and older in 1999 was 66.9%, compared with 65.5% in 1997. Ethnic disparities in vaccination coverage continue, however. Although pneumococcal vaccination coverage increased from 45.4% in 1997 to 54.1% in 1999, ethnic disparities continued in pneumococcal vaccination rates as well.

Needle safety

On July 17, 2001, OSHA began enforcement of the requirements in its revised bloodborne pathogens standard. The new requirements direct employers to involve frontline employees who provide direct patient care in identifying and choosing safety devices; maintain a log of injuries from contaminated sharps for employers with 11 or more employees; and select safer needle devices as they become available and when feasible. For more information, visit OSHA's website: www.osha-slc.gov/SLTC/needlestick

On June 15, 2001, GlaxoSmithKline (GSK) received FDA approval for Safety Tip-Lok, a prefilled Tip-Lok syringe packaged with a BD SafetyGlide needle, for pediatric doses of Havrix (hepatitis A vaccine) and Engerix-B (hepatitis B vaccine). This system was designed to help protect health care workers from needlestick injuries when giving hepatitis A and B injections to children.

Vaccine safety

On October 1, 2001, the Institute of Medicine (IOM) Immunization Safety Review Committee published its findings and recommendations on thimerosal-containing vaccines in a report titled "Thimerosal-Containing Vaccines and Neurodevelopmental Disorders." The Committee determined that "the hypothesis that thimerosal exposure through the recommended childhood immunization schedule has caused neurodevelopmental disorders is not supported by clinical or experimental evidence" and that "the evidence is inadequate to accept or reject a causal relationship between exposure to thimerosal from vaccines and the neurodevelopmental disorders of autism, ADHD, and speech or language delay."

In April 2001, National Academy Press published as a 102-page softcover book the Institute of Medicine (IOM) Immunization Safety Review Committee report "Measles-Mumps-Rubella Vaccine and Autism." Based on the evidence, the Committee rejected a causal relationship at the population level between MMR vaccine and autistic spectrum disorders. The Committee did not endorse a policy review of the licensure of MMR vaccine or of the current schedule and recommendations for administration of MMR vaccine.

VISs (Vax. Info. Statements)

CDC has released three new Vaccine Information Statements (VISs) since July 2001: pneumococcal conjugate (7/9/01), Hepatitis B (7/11/01), and DTaP (7/30/01). Health care providers in the U.S. who administer any vaccine containing diphtheria, tetanus, pertussis, measles, mumps, rubella, polio, hepatitis B, Hib, pneumococcal conjugate, or varicella vaccine are required by law to provide a copy of the relevant VIS to the patient or parent/guardian prior to administration of each dose of the vaccine. For the vaccine-preventable diseases not listed above, use of the VISs is recommended, but not required.

IAC has updated its educational piece "It's Federal Law: You Must Give Your Patients Current Vaccine Information Statements." This updated one-page article by Neal A. Halsey, MD, director of the Institute for Vaccine Safety, Johns Hopkins School of Public Health, can be found at www.immunize.org/catg.d/2027law.pdf

Current VISs

(as of Nov. 14, 2001)

Here are the most current VISs and the issue date that is printed at the bottom of each. Make sure you are using the current ones. Recycle your old copies.

anthrax	11/6/00	meningococcal	3/31/00
DTaP/DT/DTP	7/30/01	MMR	12/16/98
hepatitis A	8/25/98	polio	1/1/00
hepatitis B	7/11/01	pneumo (PCV7)	7/9/01
Hib	12/16/98	pneumo (PPV23)	7/29/97
influenza	4/24/01	Td	6/10/94
Lyme	11/1/99	varicella	12/16/98

VISs and instructions on how to use them can be obtained from CDC's website: www.cdc.gov/nip/publications/vis or from your state health department (see page 23). The VISs, some in 26 languages, and the VIS instruction sheet are also available on IAC's website: www.immunize.org/vis

VFC coverage in 2001

The Vaccines for Children program (VFC) provides free vaccines to providers for children who meet the VFC-eligibility guidelines. If you would like information on how to become a VFC provider, contact your state VFC coordinator (phone numbers are on page 23).

As of October 2001, the age guidelines (for children who are VFC-eligible) are as follows:

- MMR and varicella: Children 1–18 years of age are eligible to receive one or two doses (depending on the child's age at the time of vaccination).
- Hepatitis B: Children 0–18 years of age are eligible to receive three doses.
- Pneumococcal conjugate (PCV7): Children 6 weeks through 23 months of age are eligible for up to four doses, and children ages 24–59 months are eligible for up to two doses depending on their ACIP-recommended risk group.
- DTaP, DT, Td, polio, and Hib: Children 6 weeks through 18 years of age who need routine or catch-up doses.
- Hepatitis A: Children 2–18 years of age are eligible to receive two doses if they live in one of the eleven high-risk states: AK, AZ, CA, ID, NV, NM, OK, OR, SD, UT, and WA. Hepatitis A vaccine may be available for use in these moderate-risk states: AR, CO, MO, MT, TX, and WY, and may also be available for use in communities with increased rates of hepatitis A virus infection. Check with your local or state health department.
- Influenza: Children 6 months of age through 18 years of age are eligible if they are in an ACIP-recommended risk group.
- Pneumococcal polysaccharide (PPV23): Children 2–18 years of age are eligible if they are in an ACIP-recommended risk group.

NOTE: Some states use state funding to expand these age limits. Check with your state immunization program (for phone numbers see page 23).♦

Unprotected babies...

Hepatitis B vaccine at birth saves lives!

By ***Deborah L. Wexler, MD,*** *Executive Director, Immunization Action Coalition*

On October 17, 2001, the Advisory Committee on Immunization Practices (ACIP) voted to recommend a birth dose of hepatitis B vaccine for all U.S. infants. (Only for infants of mothers whose HBsAg test is assured to be negative does ACIP now approve giving the first dose as late as two months of age.)

The following article is adapted from an open letter to ACIP, American Academy of Pediatrics, American Academy of Family Physicians, American College of Obstetricians and Gynecologists, National Medical Association, and other medical professional organizations.

To read more articles and case reports about unprotected people of all ages, visit IAC's website:

www.immunize.org/stories

The Immunization Action Coalition (IAC) urges all health professionals and hospitals to protect all infants from hepatitis B virus (HBV) infection by administering the first dose of hepatitis B vaccine to every infant at birth and no later than hospital discharge.

Approximately 19,000 women with chronic hepatitis B infection give birth in the United States each year. Ninety percent of perinatal infections can be prevented by postexposure prophylaxis given within 12 hours of birth. Tragically, many babies are exposed to HBV at birth but do not receive appropriate postexposure prophylaxis.

Because thimerosal has been removed from all pediatric hepatitis B vaccines in the United States, concerns about thimerosal should no longer be an obstacle for practitioners in enacting a universal birth dose policy.

The primary advantage of giving the first dose at birth is that IT SAVES LIVES.

Why is such a policy necessary? Following are some of the ways infants who are not vaccinated at birth become infected:

- The pregnant woman is tested and found to be hepatitis B surface antigen (HBsAg) positive, but her status is not communicated to the newborn nursery. The infant receives neither hepatitis B vaccine nor HBIG protection at birth.
- A chronically infected pregnant woman is tested but with the wrong test, HBsAb (antibody to hepatitis B surface antigen), instead of HBsAg. This is a common mistake since these two test abbreviations differ by only one letter. Her incorrectly ordered test result is "negative," so her doctor believes her infant does not need postexposure prophylaxis.
- The pregnant woman is HBsAg positive, but her test results are misinterpreted or mistranscribed into her prenatal record or her infant's chart. Her infant does not receive HBIG or hepatitis B vaccine.
- The pregnant woman is not tested for HBsAg either prenatally or in the hospital at the time of delivery. Her infant does not receive hepatitis B vaccine in the hospital, even though it is recommended within 12 hours of birth for infants whose mothers' test results are unknown.
- The woman is tested in early pregnancy for HBsAg and is found to be negative. She develops HBV infection later in pregnancy, but it is not detected, even though it is recommended by CDC that high-risk women be retested later in pregnancy. Because the infection is not clinically detected by her health care provider, her infant does not receive hepatitis B vaccine or HBIG at birth.
- The mother is HBsAg negative, but the infant is exposed to HBV postnatally from another family member or caregiver. This occurs in two-thirds of the cases of childhood transmission.

While there are advantages to giving the first dose at a later well-baby visit, these are advantages of administrative convenience. The primary advantage of giving the first dose at birth is that **it saves lives.**

IAC recently asked hepatitis coordinators at every state health department as well as at city and county CDC projects to express their views about providing hepatitis B vaccine in the hospital. Their responses contained many examples of children who were unprotected or inadequately protected due to health professionals not ordering, misordering, misinterpreting, mistranscribing, and miscommunicating the hepatitis B test results of the children's mothers.

These state coordinators' reports tell us that no matter how well health care providers think they are doing with HBsAg screening of all pregnant women, serious mistakes continue to occur; children are unnecessarily being exposed without the benefit of postexposure prophylaxis, and at least one baby has died. In order to overcome these failures, all 50 states overwhelmingly endorse providing a birth dose.

We must vaccinate every baby in the hospital prior to discharge regardless of the HBsAg status of the mother. For those providers who choose to use hepatitis B-containing combination vaccine, i.e., Comvax, they may do so. However, since this vaccine cannot be given at birth, monovalent hepatitis B vaccine must be given at birth and then the hepatitis B vaccine series can be completed with three doses of the combination vaccine. (Giving four doses of hepatitis B vaccine has been shown to be safe in several clinical studies.)

All 50 states overwhelmingly endorse providing a birth dose.

Hepatitis B vaccine is one of the most effective vaccines available. Studies have shown that infants of the most highly infectious mothers (women who are both HBsAg and HBeAg positive) who receive postexposure prophylaxis with hepatitis B vaccine alone (without HBIG) at birth are protected in 90–95% of cases, essentially the same level of protection afforded by administering hepatitis B vaccine in addition to HBIG. Even higher rates of protection with postexposure prophylaxis have been demonstrated in infants born to less infectious mothers (those who are HBsAg positive and HBeAg negative).

Please read the hepatitis coordinators survey results (see the web address box at left), including descriptions of their experiences with failures of the current system—failures that can be largely prevented by administering hepatitis B vaccine to infants before they go home from the hospital.

Your support for providing a birth dose of hepatitis B vaccine to infants while still in the hospital will protect and save lives that are now being put at risk. ♦

Here's more information about why to give the birth dose

To read the results of IAC's survey of state health department hepatitis coordinators, visit:
www.immunize.org/birthdose/survey.htm

For more information about why all babies should receive the first dose of hepatitis B vaccine in the hospital, go to the Birth Dose page of IAC's website at:
www.immunize.org/birthdose

Checklist for Safe Vaccine Handling and Storage

Here are the 20 most important things you can do to safeguard your vaccine supply. Are you doing them all? Reviewing this list can help you improve your clinic's vaccine management practices.

Yes	No		
____	____	1.	We have a designated person in charge of the handling and storage of our vaccines.
____	____	2.	We have a back-up person in charge of the handling and storage of our vaccines.
____	____	3.	A vaccine inventory log is maintained that documents: ____ Vaccine name and number of doses received ____ Date the vaccine was received ____ Arrival condition of vaccine ____ Vaccine manufacturer and lot number ____ Vaccine expiration date
____	____	4.	Our refrigerator for vaccines is either household-style or commercial-style, NOT dormitory-style. The freezer compartment has a separate door.
____	____	5.	We do NOT store any food or drink in the refrigerator or freezer.
____	____	6.	We store vaccines in the middle of the refrigerator or freezer, and NOT in the door.
____	____	7.	We stock and rotate our vaccine supply so that the newest vaccine of each type (with the longest expiration date) is placed behind the vaccine with the shortest expiration date.
____	____	8.	We check vaccine expiration dates and we first use those that will expire soonest.
____	____	9.	We post a sign on the refrigerator door showing which vaccines should be stored in the refrigerator and which should be stored in the freezer.
____	____	10.	We always keep a thermometer in the refrigerator.
____	____	11.	The temperature in the refrigerator is maintained at 35–46ºF (2–8ºC).
____	____	12.	We keep extra containers of water in the refrigerator to help maintain cold temperatures.
____	____	13.	We always keep a thermometer in the freezer.
____	____	14.	The temperature in the freezer is maintained at +5ºF (-15ºC) or colder.
____	____	15.	We keep ice packs and other ice-filled containers in the freezer to help maintain cold temperatures.
____	____	16.	We post a temperature log on the refrigerator door on which we record the refrigerator and freezer temperatures twice a day—first thing in the morning and at clinic closing time—and we know whom to call if the temperature goes out of range.
____	____	17.	We have a "Do Not Unplug" sign next to the refrigerator's electrical outlet.
____	____	18.	In the event of a refrigerator failure, we take the following steps: ____ We assure that the vaccines are placed in a location with adequate refrigeration. ____ We mark exposed vaccines and separate them from undamaged vaccines. ____ We note the refrigerator or freezer temperature and contact the manufacturer or state health department to determine how to handle the affected vaccines. ____ We follow the manufacturer's or health department's instructions as to whether the affected vaccines can be used, and, if so, we mark the vials with the revised expiration date provided by the manufacturer or health department.
____	____	19.	We have obtained a detailed written policy for general and emergency vaccine management from our local or state health department.
____	____	20.	If all above answers are "yes," we are patting ourselves on the back. If not, we have assigned someone to implement needed changes!

Item #P3035 (11/01)

Hepatitis A, B, and C: Learn the Differences

	Hepatitis A caused by the hepatitis A virus (HAV)	**Hepatitis B** caused by the hepatitis B virus (HBV)	**Hepatitis C** caused by the hepatitis C virus (HCV)
How is it spread?	HAV is found in the stool (feces) of HAV-infected persons. HAV is usually spread from person to person by putting something in the mouth (even though it may look clean) that has been contaminated with the stool of a person with hepatitis A. This can happen when people don't wash their hands after using the toilet and then touch other people's food.	HBV is found in blood and certain body fluids. It is spread when blood or body fluid from an infected person enters the body of a person who is not immune. HBV is spread through having sex with an infected person without a condom, sharing needles or "works" when "shooting" drugs, needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth. Exposure to blood in ANY situation can be a risk for transmission.	HCV is found in blood and certain body fluids. It is spread when blood or body fluids from an infected person enters another person's body. HCV is spread through sharing needles or "works" when "shooting" drugs, through needlesticks or sharps exposures on the job, or sometimes from an infected mother to her baby during birth. It is possible to transmit HCV from sex, but it is uncommon.
Who is at risk?	• Household contacts of infected persons • Sex partners of infected persons • Persons, especially children, living in regions of the U.S. with consistently elevated rates of hepatitis A during 1987–1997* • Persons traveling to countries where hepatitis A is common (everywhere except Canada, Western Europe, Japan, Australia, and New Zealand) • Men who have sex with men • Injecting and non-injecting drug users	• Persons with more than one sex partner in a 6-month period • Persons diagnosed with a sexually transmitted disease • Men who have sex with men • Sex partners of infected persons • Injecting drug users • Household contacts of infected persons • Infants born to infected mothers • Infants/children of immigrants from areas with high HBV rates • Health care and public safety workers who are exposed to blood • Hemodialysis patients	• Injecting drug users • Health care and public safety workers **Who should be tested for HCV?** People with increased risk of HCV infection include: • Injecting drug users • Recipients of clotting factors made before 1987 • Hemodialysis patients • Recipients of blood/solid organs before 1992 • People with undiagnosed liver problems • Infants born to infected mothers (after 12 mos of age) • Health care/public safety workers (only after known exposure) **People for whom testing may or may not be indicated:** • People having sex with multiple partners • People having sex with an infected steady partner
What if you are infected?	Viral hepatitis symptoms are similar no matter which type of hepatitis a person has. If symptoms occur, the individual may experience any or all of the following: jaundice, fever, loss of appetite, fatigue, dark urine, joint pain, abdominal pain, diarrhea, nausea, and vomiting. Very rarely, a new case (acute) of viral hepatitis can cause liver failure and death. Sometimes in these instances a liver transplant (if a liver is available) can save a life. Note: Symptoms are less common in children than adults, and people who have HCV infection are less likely to experience symptoms.		
	Incubation period: 15 to 50 days There is no chronic (long-term) infection. Once you have had hepatitis A you cannot get it again. About 15% of people infected with HAV will have prolonged illness or relapsing symptoms over a 6–9 month period.	**Incubation period:** 45 to 160 days, average 90 days Chronic infection occurs in 90% of infants infected at birth; 30% of children infected at age 1–5 years; 6% of persons infected after age 5 years. In the U.S., 5000 people die each year from HBV. Death from chronic liver disease occurs in 15-25% of chronically infected persons. People who have chronic HBV infection have a much higher risk of liver failure (cirrhosis) and liver cancer.	**Incubation period:** 14 to 180 days, average 45 days Chronic infection: 75–85% of infected persons Chronic liver disease: 70% of chronically infected persons. In the U.S., 8–10,000 people die each year from HCV. People who have chronic HCV infection have a much higher risk of liver failure (cirrhosis) and liver cancer. Chronic HCV-related liver disease is the leading indication for liver transplant.
What treatment helps?	• There is no treatment for hepatitis A. • Avoid alcohol. It can worsen liver disease.	• HBV-infected persons should have a medical evaluation for liver disease every 6–12 months. Alpha-interferon and lamivudine are the two drugs licensed for the treatment of persons with chronic hepatitis B. These drugs are effective in up to 40% of patients. Liver transplant is the last resort, but livers are not always available. • Avoid alcohol. It can worsen liver disease.	• HCV-positive persons should have a medical evaluation for liver disease every 6–12 months. Interferon, pegylated interferon, and ribavirin are the only drugs licensed for the treatment of persons with chronic hepatitis C. Interferon can be taken alone or in combination with ribavirin. Combination therapy is currently the treatment of choice and can eliminate the virus in up to 40% of patients. • Get vaccinated against hepatitis A, and ask your doctor if you need hepatitis B vaccine as well. • Avoid alcohol. It can worsen liver disease.
How is it prevented?	• Hepatitis A vaccine is the best protection. It is recommended for people ≥2 yrs of age who are in risk groups for HAV infection. It is recommended as a routine vaccination for children living in certain states and geographic areas where hepatitis A occurs at consistently higher rates than average. • For a recent exposure to someone with HAV or if travel is imminent (leaving in less than 4 weeks) to an area of the world where hepatitis A is common, see your doctor about your need for a dose of immune globulin (IG). • Always wash your hands with soap and water after using the toilet, changing a diaper, and before preparing and eating food.	• Hepatitis B vaccine is the best protection. Routine vaccination is recommended for all persons 0–18 years of age, and for persons of all ages who are in risk groups for HBV infection. For optimal protection all babies should be given their first dose of hepatitis B vaccine at birth before leaving the hospital. • Whenever a woman is pregnant, she should be tested for hepatitis B; infants born to HBV-infected mothers should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours of birth. • Persons who have more than one steady sex partner should use latex condoms correctly and for every sexual encounter. (The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.)	There is no vaccine to prevent hepatitis C. HCV can be spread by sex, but this is rare. If you are having sex with more than one steady partner, use condoms correctly and every time to prevent the spread of sexually transmitted diseases. (The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use may reduce transmission.) You should also get vaccinated against hepatitis B.
		More information to help you prevent hepatitis B and hepatitis C: • Don't share personal care items that might have blood on them, such as razors, toothbrushes, and washcloths. • Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools or dye have someone else's blood on them or if the artist or piercer does not follow good sterilization practices. • Health care or public safety workers should always follow routine barrier precautions and safely handle needles and other sharps. In addition, they should be vaccinated against hepatitis B. • If you have or have had HBV or HCV infection, do not donate blood, organs, or tissue. • Don't shoot drugs. If you do, try to stop by getting into a treatment program. If you can't stop, never share needles, syringes, water, or "works." Get vaccinated against hepatitis A and B.	

*Disease rates are available from your state or local health department.

Item #P4075 (1/02)

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

Your name: _____ Date of birth: ___/___/___ Today's date: ___/___/___
(mo.) (day) (yr.) (mo.) (day) (yr.)

Do I Need Any Vaccinations Today?

Many adults are behind on their vaccinations. Do you know if you are completely up to date? These checklists will help you determine if you need any vaccinations today. Please check the boxes that pertain to you.

Influenza vaccination

❑ I am 50 years of age or older, so I should get a flu shot.

❑ I am less than 50 years old, and I have one or more of the following, so I should get a flu shot:

- ___ lung disease
- ___ heart disease
- ___ kidney disease
- ___ diabetes mellitus
- ___ HIV/AIDS
- ___ a disease that affects the immune system
- ___ I live in a nursing home or chronic care facility.
- ___ I live with someone who is in one of the above risk groups.
- ___ I will be in my 2nd or 3rd trimester of pregnancy during influenza season (December–March).
- ___ I am a health care worker.
- ___ I provide essential community services.

❑ I am not in one of the groups listed above, but I'd like a flu shot to avoid getting influenza this season.

Pneumococcal vaccination

❑ I am 65 years of age or older, and I have never had a dose of pneumococcal vaccine, so I need this vaccination.

❑ I am less than 65 years old, and I have one of the following health problems, and I have never had a dose of pneumococcal vaccine, so I need one dose:

- ___ lung disease (not asthma)
- ___ heart disease
- ___ diabetes mellitus
- ___ kidney disease
- ___ liver disease
- ___ cerebrospinal fluid leak
- ___ alcoholism

❑ I am less than 65 years old, and I have one of the following health problems listed below that puts me at high risk for pneumococcal disease and:

❑ I have never had a dose of pneumococcal vaccine, so I need two doses spaced 5 years apart.

❑ It has been at least 5 years since my first dose of pneumococcal vaccine, so I need a second dose now.

- ___ sickle cell disease
- ___ had my spleen removed
- ___ HIV/AIDS
- ___ Hodgkin's disease
- ___ leukemia
- ___ on medication or receiving x-ray treatment that affects my immune system
- ___ organ or bone marrow transplant
- ___ lymphoma
- ___ multiple myeloma
- ___ generalized malignancy

Approximate date that I last had pneumococcal vaccine: _____

Tetanus-diphtheria (Td) vaccination

❑ I have not yet had at least 3 Td shots in my lifetime (usually given as DTP in childhood), so I need to be vaccinated now with one or more doses to bring me up to date, and then I will need one dose every 10 years.

❑ I have had at least 3 Td shots (or DTPs) in my lifetime, but I think it's been 10 years or more since I received my last Td, so I need one dose now, and subsequently I will need one dose every 10 years.

Approximate date(s) that I had my last Td(s): _____

❑ I have no idea if I ever received Td vaccination in school, the military, or elsewhere, so I probably need to be vaccinated and will talk with my doctor about how many doses I should receive.

Item #P4036 (11/01)

Hepatitis A vaccination

❑ I am in one of the following risk groups, **but I do not wish to disclose which one,** so I need to be vaccinated.

❑ I am in one of the following risk groups, so I need to be vaccinated:

- ___ I travel outside of the U.S., Western Europe, Canada, Japan, Australia, and New Zealand.*
- ___ I live in a community where cases of hepatitis A are occurring and I am 18 or younger.
- ___ I am a man who has sex with men.
- ___ I use street drugs.
- ___ I have chronic liver disease.
- ___ I have a clotting factor disorder.

Hepatitis B vaccination

❑ I am in one of the following risk groups, **but I do not wish to disclose which one,** so I need to be vaccinated.

❑ I am in one of the following risk groups, so I need to be vaccinated:

- ___ I live with a person who has hepatitis B.
- ___ I have a bleeding disorder that requires transfusion.
- ___ I am or will be on kidney dialysis.
- ___ I am an immigrant from an area of the world with moderate or high rates of hepatitis B.†
- ___ I inject street drugs.
- ___ I am a sex partner of a person with hepatitis B.
- ___ I've been treated for a sexually transmitted disease.
- ___ I have or had more than one sex partner during a 6-month time period.
- ___ I am a man who has sex with men.
- ___ I am a health care or public safety worker who is exposed to blood.
- ___ I provide direct services for people with developmental disabilities.
- ___ I travel outside of the U.S.*† and plan to stay for 6 months or longer.

Measles-Mumps-Rubella (MMR) vaccination

❑ I was born after 1956 and never received a dose of MMR, so I need to be vaccinated.

❑ I am a woman thinking about a future pregnancy and do not know if I'm immune to rubella, so I need to be tested or vaccinated.

❑ I am included in one of the following groups for whom two doses of MMR are recommended, but I have only received one dose of MMR, so I need a second dose.

- ___ I am a health care worker.
- ___ I travel internationally.
- ___ I am entering college or a post–high-school educational institution.
- ___ I had a rubella titer that shows I do not have immunity.

Chickenpox (Varicella) vaccination

❑ I have never had chickenpox, so I need to be tested or vaccinated.

❑ I'm not sure if I've had chickenpox or not, so I need to be tested or vaccinated.

❑ I may become pregnant and do not know if I'm immune to chickenpox, so I need to be tested or vaccinated.

Meningococcal vaccination

❑ I am (or I'll be) a college freshman living in a dorm, so tell me more about the meningococcal vaccine.

❑ I am traveling to an area of the world where meningococcal disease is common, so I need to be vaccinated.*

❑ I have one of the following health conditions that has affected my immune system: sickle cell disease, HIV/AIDS, cancer treatment with drugs or x-rays, bone marrow or organ transplant, or a spleen that isn't working or has been removed, so I need to be vaccinated.

Lyme disease vaccination

❑ I either live, work, or regularly recreate in areas where Lyme disease is common, so I would like to be vaccinated.

Haemophilus influenzae type b (Hib) vaccination

❑ I have one of the following health conditions that has affected my immune system: sickle cell disease, HIV/AIDS, cancer treatment with drugs or x-rays, bone marrow or organ transplant, or a spleen that isn't working or has been removed, so I need to be vaccinated.

*Call your local travel clinic to find out if additional vaccines are recommended.

†Adults from these areas should be tested for hepatitis B infection prior to vaccination. Areas with high rates of hepatitis B include: Africa; China; Korea; Southeast Asia including Indonesia and the Philippines; the Middle East except Israel; South and Western Pacific Islands; interior Amazon Basin; and certain parts of the Caribbean, i.e., Haiti and the Dominican Republic. Areas of moderate endemicity include South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, Russia, and most of Central and South America.

Vaccine Products Licensed for Use in the United States, 2001

Vaccine	Brand name	Manufacturer	Type	How supplied
Diphtheria, Tetanus, acellular Pertussis	Infanrix	GlaxoSmithKline	Inactivated	single-dose vial
Diphtheria, Tetanus, acellular Pertussis	Tripedia	Aventis Pasteur	Inactivated	single-dose vial
Diphtheria, Tetanus, acellular Pertussis + Hib conjugate	TriHIBit	Aventis Pasteur	Inactivated	single-dose vial
Diphtheria, Tetanus (pediatric <7 yrs)	DT (pediatric)	Aventis Pasteur	Inactivated	10-dose vial
Tetanus, diphtheria, adsorbed (≥7 yrs)	Td	Aventis Pasteur	Inactivated	single-dose syringe and 10-dose vial
Tetanus toxoid (≥7 yrs), adsorbed	Tet Tox Adsorbed	Aventis Pasteur	Inactivated	10-dose vial
Tetanus toxoid (adult booster use only)	Tet Tox USP	Aventis Pasteur	Inactivated	15-dose vial
Tetanus toxoid, adsorbed	Te Anatoxal Berna	Berna Products	Inactivated	10-dose vial
Measles, Mumps, Rubella (MMR)	M-M-R II	Merck	Live virus	single- and 10-dose vial
Measles	Attenuvax	Merck	Live virus	single-dose vial
Rubella, Mumps	Biavax	Merck	Live virus	single-dose syringe and 10 ml vial
Measles, Rubella	M-R-VAX II	Merck	Live virus	single-dose and 10 ml vial
Rubella	MERUVAX II	Merck	Live virus	single-dose vial
Mumps	MUMPSVAX	Merck	Live virus	single-dose vial
Varicella	VARIVAX	Merck	Live virus	single-dose vial
Haemophilus b conjugate (PRP-T)	ActHIB	Aventis Pasteur	Inactivated	single-dose vial
Haemophilus b conjugate (HbOC)	HibTITER	Wyeth Lederle	Inactivated	single-dose vial
Haemophilus b conjugate (PRP-OMP)	PedvaxHIB	Merck	Inactivated	single-dose vial
Haemophilus b conjugate (PRP-OMP) + Hepatitis B	COMVAX	Merck	Inactivated	single-dose vial
Pneumococcal 7-valent conjugate	Prevnar	Wyeth Lederle	Inactivated	single-dose vial
Polio	IPOL	Aventis Pasteur	Inactivated	single-dose syringe and 10-dose vial
Hepatitis B: pediatric formulation	Engerix-B	GlaxoSmithKline	Inactivated	single-dose vial or syringe* w/ or w/o safety device
Hepatitis B: pediatric formulation	Recombivax HB	Merck	Inactivated	single-dose vial or syringe
Hepatitis B: adult formulation	Engerix-B	GlaxoSmithKline	Inactivated	single-dose vial or syringe*
Hepatitis B: adult formulation	Recombivax HB	Merck	Inactivated	single-dose vial or syringe
Hepatitis A: pediatric formulation	Havrix	GlaxoSmithKline	Inactivated	single-dose vial or syringe* w/ or w/o safety device
Hepatitis A: pediatric formulation	VAQTA	Merck	Inactivated	single-dose vial or syringe
Hepatitis A: adult formulation	Havrix	GlaxoSmithKline	Inactivated	single-dose vial or syringe*
Hepatitis A: adult formulation	VAQTA	Merck	Inactivated	single-dose vial or syringe
Hepatitis A + B: adult formulation	Twinrix	GlaxoSmithKline	Inactivated	single-dose vial or syringe*
Influenza	FluShield	Wyeth Lederle	Inactivated	10-dose vial
Influenza	FLUVIRIN	Evans Vaccines	Inactivated	single-dose syringe and 10-dose vial
Influenza	Fluzone	Aventis Pasteur	Inactivated	single-dose syringe and 10-dose vial
Pneumococcal polysaccharide, 23-valent	Pnu-Imune	Wyeth Lederle	Inactivated	single-dose syringe and 5-dose vial
Pneumococcal polysaccharide, 23-valent	PNEUMOVAX 23	Merck	Inactivated	single-dose vial or syringe and 5-dose vial
Meningococcal vaccine	Menomune-A/C/Y/W-135	Aventis Pasteur	Inactivated	single- and 10-dose vial
Lyme disease vaccine	LYMErix	GlaxoSmithKline	Inactivated	single-dose vial or syringe*
Rabies	Imovax	Aventis Pasteur	Inactivated	single-dose vial
Rabies	RabAvert	Chiron	Inactivated	single-dose vial
Rabies vaccine, adsorbed	BioRab	BioPort	Inactivated	single-dose vial
Japanese encephalitis	JE-VAX	Aventis Pasteur	Inactivated	single- and 10-dose vial
Typhoid vaccine	Typhim Vi	Aventis Pasteur	Inactivated	single-dose syringe and 20-dose vial
Typhoid vaccine live oral Ty21	Vivotif Berna	Berna Products	Live bacterial	4-capsule package
Yellow fever vaccine	YF-VAX	Aventis Pasteur	Live virus	single- and 5-dose vial
Anthrax vaccine, adsorbed	BioThrax	BioPort	Inactivated	multi-dose vial

*this syringe has a detachable, locking needle (Luer-Lok)

Vaccine Company Contact Information

Aventis Pasteur, Inc. (www.aventispasteur.com) ..... (800) 822-2463
Berna Products Corp. (www.bernaproducts.com) ..... (800) 533-5899
BioPort Corp. (www.bioport.com) ..... (517) 327-1500
Chiron Corp. (www.chiron.com or www.rabavert.com) ..... (800) 244-7668
Evans Vaccines, Ltd. (www.powderject.com/evansvaccines_fs.htm) ..... (800) 200-4278
GlaxoSmithKline (www.GSKvaccines.com) ..... (888) 825-5249
Merck & Co. (www.merckvaccines.com) ..... (800) 672-6372
Wyeth Lederle Vaccines (www.vaccineworld.com) ..... (800) 358-7443

Item #P2019 (11/01)

How's your state doing?

Current U.S. immunization rates and hep B mandates by state

State	% adults ≥65 who had influenza vaccine in past year*	% adults ≥65 who had pneumococcal vaccine during lifetime*	% of children with 4:3:1:3:3 series complete†§	% of children with ≥3 doses of hepatitis B vaccine†	% of children given ≥1 dose of varicella vaccine†	Hepatitis B childhood vaccination mandates, with year implemented**			
						Man-date?	Daycare	Elementary School	Middle School
AL	64.6	53.9	76.1	91.2	75.7	no	—	—	—
AK	59.8	43.8	70.6	82.7	47.3	yes	9/01	9/01	9/01
AZ	71.3	53.4	67.2	86.1	65.3	yes	1997	1997	2000
AR	67.3	50.2	67.1	85.6	77.6	yes	2000	2000	2000
CA	72.2	57.0	72.3	90.8	76.0	yes	1997	1997	1999
CO	74.8	62.7	71.6	90.0	60.5	yes	1997	1997	1997
CT	64.8	49.0	81.6	94.5	76.3	yes	1995	1996	2000
DE	67.7	66.5	70.0	88.6	69.2	yes	1999	1999	1999
DC	55.8	35.3	66.2	85.9	84.5	yes	1997	1997	1997
FL	63.3	53.5	71.7	92.5	60.9	yes	—	1998	1997
GA	57.0	49.7	77.7	92.5	75.1	yes	1997	1997	—
HI	74.1	55.8	72.8	90.4	77.5	yes	1998	1998	—
ID	69.0	55.2	70.7	89.0	38.0	yes	born after 11/91	born after 11/91	born after 11/91
IL	67.5	47.4	71.2	88.6	47.9	yes	1997	—	1997
IN	66.2	51.6	72.0	87.2	57.9	yes	—	1999	—
IA	69.6	61.2	82.5	96.1	50.9	yes	—	1999	—
KS	67.0	55.1	71.3	89.9	57.8	no	—	—	—
KY	68.4	52.0	77.0	91.1	63.0	yes	1998	1998	8/01
LA	60.3	40.4	71.8	90.7	65.1	yes	1998	1998	—
ME	73.7	57.3	76.0	85.8	55.0	no	—	—	—
MD	62.6	54.1	75.4	90.5	82.5	yes	1995	9/01	—
MA	69.4	56.8	81.4	93.3	79.5	yes	1992	1996	1999
MI	70.0	57.7	73.7	94.5	69.6	yes	1997	9/01	1/03
MN	64.0	51.9	82.4	93.0	61.4	yes	—	2000	9/01
MS	62.8	50.4	75.9	88.4	53.0	yes	—	1999	—
MO	68.4	52.8	76.8	91.7	59.9	yes	1995	1997	1999
MT	72.9	61.2	71.1	89.6	54.3	no	—	—	—
NE	69.2	54.8	75.5	88.0	63.5	yes	—	1999	2000
NV	62.2	61.7	69.1	84.6	61.4	yes	—	7/02	—
NH	65.1	60.4	78.9	90.8	66.0	yes	1996	1996	—
NJ	65.3	55.1	71.2	89.1	67.8	yes	—	9/01	9/01
NM	68.8	53.2	64.5	86.2	68.0	yes	2000	9/02	1999
NY	63.8	50.0	72.3	91.7	70.6	yes	born after 1/95	born after 1/93	2000
NC	64.2	58.5	82.8	93.2	76.4	yes	born after 7/94	born after 7/94	born after 7/94
ND	67.2	55.0	80.3	95.7	58.8	yes	—	2000	—
OH	68.8	55.0	68.9	90.9	60.2	yes	1999	1999	—
OK	71.8	53.7	68.3	87.8	72.4	yes	1999	1997	1997
OR	65.2	56.2	74.7	88.4	76.7	yes	1998	1998	2000
PA	63.1	52.2	77.8	95.6	74.4	yes	1994	1997	2002
RI	75.8	56.9	80.5	96.4	81.6	yes	1998	1999	2000
SC	69.9	56.1	78.5	94.9	70.3	yes	1994	1998	1998
SD	73.6	50.4	73.6	92.3	39.7	no	—	—	—
TN	65.5	54.3	76.8	91.1	69.9	yes	1998	1999	—
TX	69.8	55.9	63.5	84.5	73.6	yes	1998	1998	2000
UT	75.1	61.3	68.2	81.1	52.7	yes	—	1999	—
VT	73.4	56.5	77.0	90.3	57.3	yes	—	—	1999
VA	65.7	55.2	70.7	91.1	77.6	yes	1994	1994	7/01
WA	68.9	55.8	72.5	89.5	48.7	yes	1997	1997	—
WV	62.9	54.3	71.9	90.2	59.9	no	—	—	—
WI	64.9	53.7	74.2	89.1	56.7	yes	1997	1997	1997
WY	73.8	61.5	78.2	93.8	57.6	yes	born after 1/96	1999	1998

*From the 1999 Behavioral Risk Factor Surveillance System (BRFSS). *MMWR*, 6/29/01, Vol. 50, No. 25, pp. 532-537.
† From the 2000 National Immunization Survey (NIS). *MMWR*, 8/3/01, Vol. 50, No. 30, pp. 637-640.
§ Four or more doses of DTP/DT/DTaP, three or more doses of polio vaccine, one or more doses of measles-containing vaccine, three or more doses of both Hib vaccine and hepatitis B vaccine.
**IAC data; updates appear on our website throughout the year at www.immunize.org/laws

Summary of Recommendations for Adult Immunization

Adapted from the Advisory Committee on Immunization Practices (ACIP) recommendations by the Immunization Action Coalition, November 2001

Vaccine name and route	For whom it is recommended	Schedule for routine and "catch-up" administration	Contraindications (mild illness is not a contraindication)
Influenza Give IM	• Adults who are 50yrs of age or older. • People 6m–50yrs of age with medical problems such as heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathies, immunosuppression, and/or people living in chronic care facilities. • People (≥6m of age) working or living with at-risk people. • Pregnant women who have underlying medical conditions should be vaccinated before influenza season, regardless of the stage of pregnancy. • Healthy pregnant women who will be in their 2nd or 3rd trimesters during influenza season. • All health care workers and those who provide key community services. • Travelers 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). • Anyone who wishes to reduce the likelihood of becoming ill with influenza.	• Given every year. • October through November is the *optimal* time to receive an annual flu shot to maximize protection. • Influenza vaccine may be given at any time during the influenza season (typically December through March) or at other times when the risk of influenza exists. • May give with all other vaccines but as a separate injection.	• Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. • Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Pneumococcal polysaccharide (PPV23) Give IM or SC	• Adults who are 65yrs of age or older. • People 2–64yrs of age who have chronic illness or other risk factors, including chronic cardiac or pulmonary diseases, chronic liver disease, alcoholism, diabetes mellitus, CSF leaks, as well as people living in special environments or social settings (including Alaska Natives and certain American Indian populations). Those at highest risk of fatal pneumococcal infection are people with anatomic asplenia, functional asplenia, or sickle cell disease; immunocompromised persons including those with HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome; persons receiving immunosuppressive chemotherapy (including corticosteroids); and those who received an organ or bone marrow transplant. Pregnant women with high-risk conditions should be vaccinated if not done previously.	• Routinely given as a one-time dose; administer if previous vaccination history is unknown. • One-time revaccination is recommended 5yrs later for people at highest risk of fatal pneumococcal infection or rapid antibody loss (e.g., renal disease) and for people ≥65yrs of age if the 1st dose was given prior to age 65 and ≥5yrs have elapsed since previous dose. • May give with all other vaccines but as a separate injection.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Hepatitis B (Hep-B) Give IM Brands may be used interchangeably.	• All adolescents. • High-risk adults, including household contacts and sex partners of HBsAg-positive persons; users of illicit injectable drugs; heterosexuals with more than one sex partner in 6 months; men who have sex with men; people with recently diagnosed STDs; patients receiving hemodialysis and patients with renal disease that may result in dialysis; recipients of certain blood products; health care workers 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. **Note:** Prior serologic testing may be recommended depending on the specific level of risk and/or likelihood of previous exposure. **Note:** In 1997, the NIH Consensus Development Conference, a panel of national experts, recommended that hepatitis B vaccination be given to all anti-HCV positive persons. **Ed. note:** Provide serologic screening for immigrants from endemic areas. When HBsAg-positive persons are identified, offer appropriate disease management. In addition, screen their sex partners and household members and, if found susceptible, vaccinate.	• Three doses are needed on a 0, 1, 6m schedule. • Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m. • There must be 4wks between doses #1 and #2, and 8wks between doses #2 and #3. Overall there must be at least 16wks between doses #1 and #3. • **Schedule for those who have fallen behind:** If the series is delayed between doses, DO NOT start the series over. Continue from where you left off. • May give with all other vaccines but as a separate injection. For Twinrix™ (hepatitis A and B combination vaccine [GSK]) three doses are needed on a 0, 1, 6m schedule.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Hepatitis A (Hep-A) Give IM Brands may be used interchangeably.	• People who travel outside of the U.S. (except for Western Europe, New Zealand, Australia, Canada, and Japan). • People with chronic liver disease, including people with hepatitis C; people with hepatitis B who have chronic liver disease; illicit drug users; men who have sex with men; people with clotting-factor disorders; people who work with hepatitis A virus in experimental lab settings (not routine medical laboratories); and food handlers when health authorities or private employers determine vaccination to be cost effective. **Note:** Prevaccination testing is likely to be cost effective for persons >40yrs of age as well as for younger persons in certain groups with a high prevalence of hepatitis A virus infection.	• Two doses are needed. • The minimum interval between dose #1 and #2 is 6m. • If dose #2 is delayed, do not repeat dose #1. Just give dose #2. • May give with all other vaccines but as a separate injection.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. • Safety during pregnancy has not been determined, so benefits must be weighed against potential risk. **Note:** Breastfeeding is not a contra-indication to the use of this vaccine.

For specific ACIP immunization recommendations refer to the statements, which are published in *MMWR*. To obtain a complete set of ACIP statements, call (800) 232-2522, or to access individual statements, visit CDC's website: www.cdc.gov/nip/publications/ACIP-list.htm or visit IAC's website: www.immunize.org/acip

This table is revised yearly due to the changing nature of U.S. immunization recommendations. Visit the Immunization Action Coalition's website at www.immunize.org/adultrules to make sure you have the most current version. The Coalition thanks William L. Atkinson, MD, MPH, from CDC's National Immunization Program, and Linda A. Moyer, RN, and Harold S. Margolis, MD, both from the Division of Viral Hepatitis, at CDC's National Center for Infectious Diseases, for their review of this table. Responsibility for errors or omissions lies with the editor, Deborah L. Wexler, MD. This table is published by the Immunization Action Coalition, 1573 Selby Avenue, St. Paul, MN 55104. Telephone: (651) 647-9009. E-mail: admin@immunize.org

Item #P2011 (11/01)

Summary of Recommendations for Adult Immunization - side 2

Vaccine name and route	For whom it is recommended	Schedule for routine and "catch-up" administration	Contraindications (mild illness is not a contraindication)
Td (Tetanus, diphtheria) Give IM	• All adolescents and adults. • After the primary series has been completed, a booster dose is recommended every 10yrs. Make sure your patients have received a primary series of 3 doses. • A booster dose as early as 5yrs later may be needed for the purpose of wound management, so consult ACIP recommendations.	• Give booster dose every 10yrs after the primary series has been completed. • For those who are unvaccinated or behind, complete the primary series (spaced at 0, 1–2m, 6–12m intervals). Don't restart the series, no matter how long since the previous dose. • May give with all other vaccines but as a separate injection.	• Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
MMR (Measles, mumps, rubella) Give SC	• Adults born in 1957 or later who are ≥18yrs of age (including those born outside the U.S.) should receive at least one dose of MMR if there is no serologic proof of immunity or documentation of a dose given on or after the first birthday. • Adults in high-risk groups, such as health care workers, students entering colleges and other post–high school educational institutions, and international travelers, should receive a total of two doses. • Adults born before 1957 are usually considered immune but proof of immunity may be desirable for health care workers. • All women of childbearing age (i.e., adolescent girls and premenopausal adult women) who do not have acceptable evidence of rubella immunity or vaccination. • Special attention should be given to immunizing women born outside the United States in 1957 or later.	• One or two doses are needed. • If dose #2 is recommended, give it no sooner than 4wks after dose #1. • May be given with all other vaccines but as a separate injection. • If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart. • If a pregnant woman is found to be rubella-susceptible, administer MMR postpartum.	• Previous anaphylactic reaction to this vaccine, or to any of its components. • Pregnancy or possibility of pregnancy within 4 weeks (use contraception). • Persons immunocompromised due to cancer, leukemia, lymphoma, immunosuppressive drug therapy, including high-dose steroids or radiation therapy. **Note:** HIV positivity is NOT a contraindication to MMR except for those who are severely immunocompromised. • If blood products or immune globulin have been administered during the past 11 months, consult the ACIP recommendations regarding time to wait before vaccinating. • Moderate or severe acute illness. **Note:** Breastfeeding is not a contraindication to the use of this vaccine. **Note:** MMR is not contraindicated if a PPD test was recently applied. If PPD and MMR not given on same day, delay PPD for 4–6wks after MMR.
Varicella (Var) (Chickenpox) Give SC	All susceptible adults and adolescents should be vaccinated. It is especially important to ensure vaccination of the following groups: susceptible persons who have close contact with persons at high risk for serious complications (e.g., health care workers and family contacts of immunocompromised persons) and susceptible persons who are at high risk of exposure (e.g., teachers of young children, day care employees, residents and staff in institutional settings such as colleges and correctional institutions, military personnel, adolescents and adults living with children, non-pregnant women of childbearing age, and international travelers who do not have evidence of immunity). **Note:** People with reliable histories of chickenpox (such as self or parental report of disease) can be assumed to be immune. For adults who have no reliable history, serologic testing may be cost effective since most adults with a negative or uncertain history of varicella are immune.	• Two doses are needed. • Dose #2 is given 4–8wks after dose #1. • May be given with all other vaccines but as a separate injection. • If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart. • If the second dose is delayed, do not repeat dose #1. Just give dose #2.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy, or possibility of pregnancy within 1 month. • Immunocompromised persons due to malignancies and primary or acquired cellular immunodeficiency including HIV/AIDS. (See *MMWR* 1999, Vol. 28, No. RR-6.) **Note:** For those on high-dose immunosuppressive therapy, consult ACIP recommendations regarding delay time. • If blood products or immune globulin have been administered during the past 5 months, consult the ACIP recommendations regarding time to wait before vaccinating. • Moderate or severe acute illness. **Note:** Breastfeeding is not a contraindication to the use of this vaccine. **Note:** Manufacturer recommends that salicylates be avoided for 6wks after receiving varicella vaccine because of a theoretical risk of Reye's syndrome.
Polio (IPV) Give IM or SC	Not routinely recommended for persons 18yrs of age and older. **Note:** Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults can receive one booster dose if traveling to polio endemic areas.	• Refer to ACIP recommendations regarding unique situations, schedules, and dosing information. • May be given with all other vaccines as a separate injection.	• Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Lyme disease Give IM	• Consider for persons 15–70yrs of age who reside, work, or recreate in areas of high or moderate risk and who engage in activities that result in frequent or prolonged exposure to tick-infested habitat. • Persons with a history of previous uncomplicated Lyme disease who are at continued high risk for Lyme disease. (See description in the first bullet.) • See ACIP statement for a definition of high and moderate risk.	• Three doses are needed. Give at intervals of 0, 1, and 12m. Schedule dose #1 (given in yr 1) and dose #3 (given in yr 2) to be given several weeks before tick season. See ACIP statement for details. • If given with other vaccines, give as a separate injection.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy. • Moderate or severe acute illness. • Persons with treatment-resistant Lyme arthritis. • There are not enough data to recommend Lyme disease vaccine to persons with these conditions: immunodeficiency, diseases associated with joint swelling (including rheumatoid arthritis) or diffuse muscular pain, or chronic health conditions due to Lyme disease.
Mening.	Meningococcal disease risk and vaccine availability should be discussed with college students. Give SC. Consult the ACIP statement *Meningococcal Disease and College Students* (6/30/00) for details.		

PNEUMOCOCCAL CONJUGATE VACCINE

WHAT YOU NEED TO KNOW

1 Why get vaccinated?

Infection with *Streptococcus pneumoniae* bacteria can cause serious illness and death. Invasive pneumococcal disease is responsible for about 200 deaths each year among children under 5 years old. It is the leading cause of bacterial meningitis in the United States. (Meningitis is an infection of the covering of the brain).

Each year pneumococcal infection causes severe disease in children under five years old:

- over 700 cases of meningitis,
- 13,000 blood infections, and
- about 5 million ear infections.

It can also lead to other health problems, including:

- pneumonia,
- deafness,
- brain damage.

Children under 2 years old are at highest risk for serious disease.

Pneumococcus bacteria are spread from person to person through close contact.

Pneumococcal infections can be hard to treat because the bacteria have become resistant to some of the drugs that have been used to treat them. This makes **prevention** of pneumococcal infections even more important.

Pneumococcal conjugate vaccine can help prevent serious pneumococcal disease, such as meningitis and blood infections. It can also prevent some ear infections. But ear infections have many causes, and pneumococcal vaccine is effective against only some of them.

2 Pneumococcal conjugate vaccine

Pneumococcal conjugate vaccine is approved for infants and toddlers. Protection lasts at least 3 years, so children who are vaccinated when they are infants will be protected when they are at greatest risk for serious disease.

Some older children and adults may get a different vaccine called pneumococcal polysaccharide vaccine. There is a separate Vaccine Information Statement for people getting this vaccine.

3 Who should get the vaccine and when?

- **Children Under 2 Years of Age**

  The routine schedule for pneumococcal conjugate vaccine is 4 doses, one dose at each of these ages:

  - ✓ **2 months**
  - ✓ **4 months**
  - ✓ **6 months**
  - ✓ **12-15 months**

  Children who weren't vaccinated at these ages can still get the vaccine. The number of doses needed depends on the child's age. Ask your health care provider for details.

- **Children Between 2 and 5 Years of Age**

  Pneumococcal conjugate vaccine is also recommended for children between 2 and 5 years old who have not already gotten the vaccine and are at high risk of serious pneumococcal disease. This includes children who:

  - have sickle cell disease,
  - have a damaged spleen or no spleen,
  - have HIV/AIDS,
  - have other diseases that affect the immune system, such as diabetes, cancer, or liver disease, or who
  - take medications that affect the immune system, such as chemotherapy or steroids, or
  - have chronic heart or lung disease.

  The vaccine should be considered for other children who are at increased risk of serious pneumococcal disease. This includes children who:

  - are under 3 years of age,
  - are of Alaska Native, American Indian or African American descent, or
  - attend group day care.

  The number of doses needed depends on the child's age. Ask your health care provider for more details.

Pneumococcal conjugate vaccine may be given at the same time as other vaccines.

4 Some children should not get pneumococcal conjugate vaccine or should wait

Children should not get pneumococcal conjugate vaccine if they had a serious (life-threatening) allergic reaction to a previous dose of this vaccine, or have a severe allergy to a vaccine component. Tell your health care provider if your child has ever had a severe reaction to any vaccine, or has any severe allergies.

Children with minor illnesses, such as a cold, may be vaccinated. But children who are moderately or severely ill should usually wait until they recover before getting the vaccine.

5 What are the risks from pneumococcal conjugate vaccine?

In studies (nearly 60,000 doses), pneumococcal conjugate vaccine was associated with only mild reactions:

- Up to about 1 infant out of 4 had redness, tenderness, or swelling where the shot was given.
- Up to about 1 out of 3 had a fever of over 100.4°F, and up to about 1 in 50 had a higher fever (over 102.2°F).
- Some children also became fussy or drowsy, or had a loss of appetite.

So far, no serious reactions have been associated with this vaccine. However, a vaccine, like any medicine, could cause serious problems, such as a severe allergic reaction. The risk of this vaccine causing serious harm, or death, is extremely small.

6 What if there is a moderate or severe reaction?

What should I look for?

Look for any unusual condition, such as a serious allergic reaction, high fever, or unusual behavior.

Serious allergic reactions are extremely rare with any vaccine. If one were to occur, it would most likely be within a few minutes to a few hours after the shot. Signs can include:

- difficulty breathing
- hoarseness or wheezing
- swelling of the throat
- weakness
- fast heart beat
- dizziness
- hives
- paleness

What should I do?

- Call a doctor or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your health care provider to file a Vaccine Adverse Event Reporting System (VAERS) form, or call VAERS yourself at **1-800-822-7967.**

7 The National Vaccine Injury Compensation Program

In the rare event that you or your child has a serious reaction to a vaccine, a federal program has been created to help pay for the care of those who have been harmed.

For details about the National Vaccine Injury Compensation Program, call **1-800-338-2382** or visit their website at **http://www.hrsa.gov/bhpr/vicp**

8 How can I learn more?

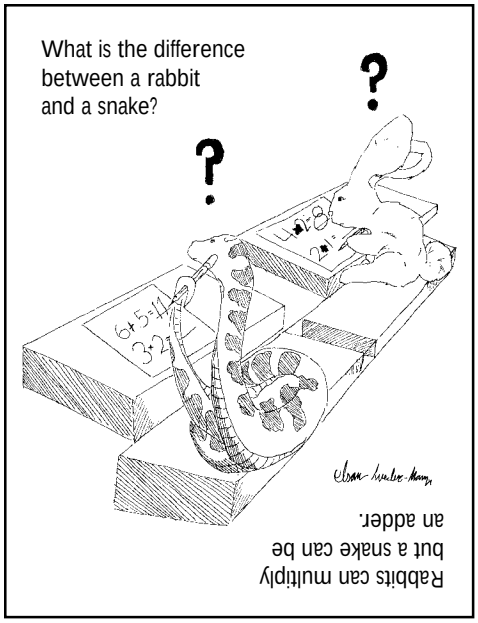
- Ask your health care provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department's immunization program.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-2522** (English)
  - Call **1-800-232-0233** (Español)
  - Visit the National Immunization Program's website at **http://www.cdc.gov/nip**

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention
National Immunization Program

vaccine. The spacing of doses in the clinical trial usually becomes the recommended schedule. A "minimum interval" is shorter than the recommended interval, and is the shortest time between two doses of a vaccine series in which an adequate response to the second dose can be expected. The concern is that a dose given too soon after the previous dose may reduce the response. The minimum spacing between doses is generally included in the ACIP statement for that vaccine, and is also summarized in the *General Recommendations on Immunization* ACIP statement. Doses of vaccines given routinely to infants and young children should not be separated by less than 4 weeks.

How do I decide whether to report an adverse event to the Vaccine Adverse Events Reporting System (VAERS)?
All significant health events that may have been related to a dose of vaccine—particularly those that lead to hospitalization, disability, or death—should be reported to VAERS. The health care provider doesn't need to be certain the event was vaccine-related in order to report it. It is not necessary to report minor adverse reactions, such as local reactions or low-grade fever.

Is there any reason to be concerned about latex allergies with respect to vaccine vial stoppers?
Some vial stoppers are made with natural rubber, which may contain latex as well as other impurities from the original latex material. Latex and other impurities may therefore be present in very small quantities in the vaccine, or on the needle as it passes through the stopper. Persons with anaphylactic reactions to latex should generally not be given vaccines that have been in contact with natural rubber, either in the vial or in a syringe. Persons with latex allergies that are not anaphylactic may be vaccinated as usual.



Tetanus, diphtheria, pertussis

by William L. Atkinson, MD, MPH

Can TriHIBit (combination DTaP and Hib used only for dose #4 of DTaP) be given as early as 12 mos of age or after 18 mos of age?
TriHIBit may be given as the fourth dose of the DTaP and Hib series at 12 months of age or older, as long as it has been at least 6 months since the third DTaP and 2 months since the previous Hib dose. It can be used until the fifth birthday after which Hib vaccine is generally not indicated.

A 7-year-old came to our office with only 3 DTaP doses, #1 at 2 mos, #2 at 5 years of age, and #3 given 2 mos after #2. How many more doses are needed?
If the first dose of tetanus and diphtheria toxoid was administered prior to the first birthday, a total of four doses constitutes a complete primary series. The child needs one additional dose of Td (adult formulation). This dose should be given 6–12 months after the third dose.

We inadvertently gave a 15-month-old a DT instead of a DTaP. The mother wants the toddler to get the pertussis component. What interval should there be between the DT and DTaP?
ACIP does not address this issue. In my opinion the repeat dose should be given as soon as the error is discovered.

A child received his DTaP doses on this schedule: #1 at 3 mos, #2 at 10 mos, #3 at 14 mos, and #4 at 16 mos of age (4 mos too early). Will the child need to repeat dose #4 or can he wait and get dose #5 at age 4–6?
The fourth dose should be repeated, since it was given much too early. The repeat dose should be given 6 months after the invalid dose.

Why is there a shortage of tetanus/diphtheria vaccine? What should we tell our patients?
The shortage of adult Td occurred because Wyeth Lederle discontinued production of Td. The remaining vaccine manufacturer, Aventis Pasteur, has increased production to meet national need, but 11 months are required for vaccine production, meaning the shortage could extend into 2002. CDC recommends that providers delay all routine Td boosters among adolescents and adults until 2002. Available vaccine should be used for persons traveling to a country where the risk of diphtheria is high, for wound management, for completing the series in persons who have received less than 3 doses of Td-containing vaccine, and for pregnant women who have not been vaccinated with Td during the preceding 10 years. Providers should record the names of patients whose booster doses are delayed during the shortage and recall these patients when the supply improves.

Polio

by William L. Atkinson, MD, MPH

Is it true that IPV can be given either SC or IM?
Yes.

After what age is routine polio vaccine no longer recommended?
Routine polio vaccination is not recommended for persons 18 years of age and older who reside in the United States.

Measles, mumps, rubella

by William L. Atkinson, MD, MPH

What is the recommended length of time a woman should wait after receiving rubella (or MMR) vaccine before becoming pregnant?
Four weeks. In October 2001, ACIP voted to change its recommendation for the waiting interval following the administration of rubella vaccine. The interval was reduced from 3 months to 4 weeks. The waiting period for measles and mumps vaccine was already one month.

Our clinic has given MMR by the wrong route (IM rather than SC) for years. Should these doses be repeated?
All live injected vaccines (MMR, varicella, and yellow fever) are recommended to be given subcutaneously. However, intramuscular administration of any of these vaccines is not likely to decrease immunogenicity, and doses given IM do not need to be repeated.

What is the recommendation for MMR vaccine for health care workers?
All persons who work in a medical facility should have evidence of immunity to measles and rubella. For most persons born after 1956, this means documentation of two doses of MMR vaccine, or serologic evidence of measles and rubella immunity. Persons born before 1957 can generally be

(continued on page 18)

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 and we welcome your helpful review of our content. If you find an error, please notify us immediately. We publish notification of significant errors in ***NEEDLE TIPS*** and on our free e-mail announcement service ***IAC EXPRESS.*** Be sure you're signed up for this service! Visit www.immunize.org/express to sign up or subscribe by sending an e-mail message to express@immunize.org Then enter the word SUBSCRIBE in the "Subject:" field.

considered immune to all three diseases, but age does not guarantee immunity. As a result, ACIP recommends that facilities consider recommending a dose of MMR to persons born before 1957 if there is no other evidence of immunity (such as serologic testing).

Why is a second dose of MMR necessary?
Between 2 and 5% of persons do not develop measles immunity after the first dose of vaccine. This occurs for a variety of reasons. The second dose is to provide another chance to develop measles immunity for persons who did not respond to the first dose.

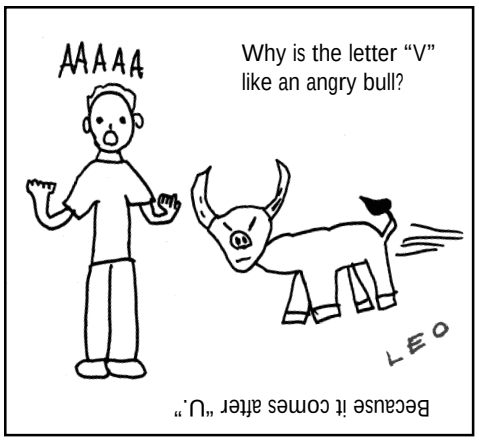
Varicella

by William L. Atkinson, MD, MPH

How important is it to vaccinate older children and adults?
It is critical to vaccinate susceptible older children and adults whenever the opportunity arises. With younger children being routinely vaccinated, the chance of being exposed to cases of chickenpox is decreasing. Older children, adolescents, and adults who have not had chicken-pox now have a greater chance of remaining susceptible. These older individuals, when they contract chickenpox, are more likely to become seriously ill and have disease complications than younger children.

An 8-month-old was erroneously given varicella vaccine. What might the consequences be? What should we do now?
An 8-month-old is likely to have residual passive varicella antibody from his or her mother. The vaccine probably will have no effect, and no action is necessary. The dose should not be counted, and the child should be revaccinated at 12–15 months of age.

After administration of varicella vaccine, should a child or adult be isolated from a non-immune pregnant or immunosuppressed person?
Transmission of varicella vaccine virus to a contact is not common. Most documented instances of vaccine virus transmission have occurred when the vaccinated person developed a rash. If the child develops a rash 7–21 days following vaccination, it is prudent to avoid prolonged close contact between the child and a susceptible person.



For postexposure prophylaxis for varicella, when is it too late to administer varicella vaccine?
Varicella vaccine given within 72 hours (3 days), and possibly even up to 5 days after exposure, can prevent varicella in the exposed person. However, not every exposure to varicella leads to infection, so for future immunity, varicella vaccine should be given, even if more than 5 days have passed since an exposure.

Haemophilus influenzae type b

by William L. Atkinson, MD, MPH

A 4-year-old received dose #3 of Hib at age 6 months. Does the child need dose #4?
Yes. All children less than 5 years old need at least one dose of Hib vaccine on or after the first birthday. The last dose should be separated from the previous dose by at least 2 months.

A 12-month-old needs both Hib and hepatitis B vaccines today. Can I use Comvax (Hib-Hep B combination vaccine from Merck), even if the child has not previously received this combination product?
Yes. Comvax can be used when either or both antigens are indicated and neither antigen is contraindicated. Comvax would not be used after the fifth birthday because Hib vaccine is not routinely recommended beyond this age. Comvax should also not be used in infants less than 6 weeks of age.

Pneumo conjugate (PCV7)

by William L. Atkinson, MD, MPH

Should PCV7 ever be used in children 5 years of age or older?
Neither ACIP nor AAP routinely recommend PCV7 for children 5 years of age or older. However, the vaccine is approved for use through age 9 years. Some providers may choose to administer PCV7 to these older children who are at highest risk of invasive pneumococcal disease, such as those with HIV infection or anatomic or functional asplenia. The use of PCV7 in children 5–9 years of age is not contraindicated.

When should a child undergoing splenectomy receive pneumococcal vaccine(s)?
It is preferable that the child have antibody to pneumococcus at the time of the procedure, so administer the appropriate vaccine prior to splenectomy if possible. Children 2–59 months of age should receive one or more doses of PCV7 (see ACIP statement or package insert for age-appropriate schedule). Children 2 years of age and older should receive pneumococcal polysaccharide vaccine (PPV23) regardless of whether they also received PCV7. Children 5 years and older will generally receive only PPV23. Doses of PCV7 and PPV23 given at age 2 and older should be separated by at least 2 months.

An 18-month-old received dose #1 of PCV7 seven days before her first birthday and dose #2 at age 15 months. Does she need a third dose?
A schedule for "lapsed" vaccination can be found in the PCV7 ACIP statement *(MMWR,* Oct. 6, 2000; vol. 49, no. RR-9). According to this schedule, a child 12–23 months of age who received one dose of PCV7 before the first birthday should receive two additional doses after the first birthday. This child needs one more dose now to complete the series.

My 4-year-old patient with sickle cell disease received PPV23 vaccine at age 2. Should I administer PCV7 in addition?
ACIP recommends that children 24–59 months of age with high-risk conditions (such as sickle cell disease or HIV infection) who have previously received PPV23 should receive 2 doses of PCV7 separated by 2 months.

Influenza

by William L. Atkinson, MD, MPH

If the influenza strains in vaccine do not change in two consecutive years, why is it necessary to receive a dose in year two?
It is unusual for influenza vaccine to contain all the same virus strains two years in a row. Since 1970, one out of the three vaccine viruses was changed, on average, every year. Annual vaccination is needed to produce immunity to the new vaccine strains. Further, antibody levels fall in the 6–12 months following vaccination, so annual vaccination will boost antibody levels into protective range.

Does CDC recommend getting an influenza immunization to reduce the number of flu-like illnesses that may raise concerns about possible anthrax-related illness?
No. CDC does not recommend that influenza vaccination be considered as a way to avoid confusing influenza disease with suspected anthrax illness. Influenza vaccine is the primary means to prevent influenza and its severe complications, including pneumonia, hospitalization, and death. Complications most often occur among persons ≥65 years and among persons <65 years who have certain medical conditions. (See www.cdc.gov/nip/flu/Public.htm#People.)

Many other infectious agents (including anthrax) can cause illnesses that begin with flu-like symptoms (fever, body aches, and headaches). Most flu-like illnesses are not caused by influenza (or anthrax). The flu shot can prevent 70–90%, but

not all, influenza infections. The vaccine does not prevent flu-like illness caused by agents other than influenza.

Influenza vaccine should be targeted toward groups that are at increased risk of complications and toward health care workers. CDC recommends that these groups be prioritized for early receipt of vaccine and that efforts to vaccinate these groups continue throughout the influenza season. Lower influenza vaccine coverage of high-risk persons could lead to an increase in influenza-related hospitalizations and deaths. Receipt of influenza vaccine in November and later is encouraged for those who live with high-risk persons, for healthy people aged 50-64 years, and for others who wish to reduce their chances of getting influenza.

Pneumo poly vaccine PPV23

by William L. Atkinson, MD, MPH

Is the frequency for revaccination for PPV23 every 3 years, 5 years, or 6 years?

Most people who are candidates for pneumococcal polysaccharide vaccine need only a single dose. Some people with medical conditions that put them at very high risk of invasive pneumococcal disease (such as immunodeficiency and functional or anatomic asplenia) should receive a second dose 5 years after the first dose. People on dialysis are included in this category. No person should receive more than 2 doses of PPV23 unless they have had a bone marrow transplant.

Publications from CDC

"Parents' Guide To Childhood Immunization"

"Vaccine Information Statements: What You Need to Know"

To order, call (800) 232-2522

Miscellaneous vaccines

by William L. Atkinson, MD, MPH

Should meningococcal vaccine be given to college students?

ACIP does not recommend routine vaccination of college students, but rather that health care providers inform college students, especially freshmen living in dorms, and their parents about meningococcal disease and the benefits of vaccination. If the student or parent requests meningococcal vaccine, it is given as a single dose.

If meningococcal vaccine was erroneously given IM, what should be done?

The manufacturer recommends that meningococcal vaccine be given by the subcutaneous route. It is not necessary to repeat the dose if it is inadvertently given by the intramuscular route.

Please discuss the contraindications for the use of Lyme vaccine.

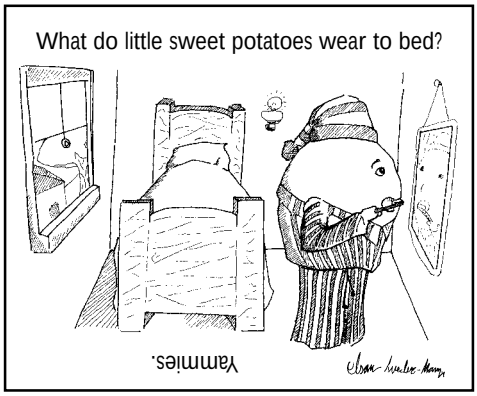
The vaccine is licensed only for persons 15–70 years of age, so people younger than 15 and older than 70 years should not be vaccinated. Persons with treatment-resistant Lyme arthritis should not be vaccinated because of the association of this condition with immune reactivity to the vaccine antigen (OspA). Persons who have a severe allergy to a vaccine component or following a prior dose should not be vaccinated. No data are available regarding the vaccination of pregnant women, immunosuppressed persons, or those with chronic joint, neurologic or cardiac symptoms related to Lyme disease. Vaccination of these persons should be considered only if the benefit of the vaccine outweighs the theoretical risk of a vaccine adverse event. Vaccination of persons with acute moderate or severe illness should be deferred until the acute illness has improved.

If a bat is found in a room where a baby is sleeping, do you need to give postexposure prophylaxis?

Yes, rabies postexposure prophylaxis (PEP) is recommended. When a bat is found in a dwelling, even in the absence of a known bite or scratch, the recommendation calls for aggressive use of PEP. If possible, the bat should be safely collected and submitted for rabies diagnosis. Details of these rabies recommendations were published in *MMWR,* 1998; vol. 47, no. 1. The indications for PEP are fairly complex, and depend on several factors. Providers who are responsible for decisions on PEP should also be familiar with the ACIP recommendations *(MMWR*, 1999; vol. 48, no. RR-1).

Will smallpox and anthrax vaccines be available for the general public anytime soon?

About 15 million doses of smallpox vaccine are available in the United States, and these doses are being reserved for use in the event of a release of smallpox virus. The federal government has contracted for at least 40 million more doses, but these will not be available for at least a year. There is only one anthrax vaccine manufacturer in the United States. The Department of Defense will receive all anthrax vaccine produced in the foreseeable future for use among military personnel.



Hepatitis B

by Harold Margolis, MD, and Linda Moyer, RN

Is it true that ACIP recently changed its recommendation regarding the birth dose?

Yes. On Oct. 17, the ACIP voted to change its recommendation regarding the timing of the first dose of hepatitis B vaccination for infants of low-risk women. ACIP voted to recommend a birth dose of hepatitis B vaccine for all infants, which means that the first dose of hepatitis B vaccine should be administered between birth and hospital discharge. Only for infants of mothers whose HBsAg test is assured to be negative does ACIP now consider allowing administration of the first dose as late as 2 months of age.

Can Comvax (the Recombivax HB 5mcg and PedvaxHib combination from Merck) be given at birth?

Absolutely not. Comvax must not be given before 6 weeks of age because of the potential for suppression of the immune response to subsequent doses of Hib vaccine.

Can Comvax be used after a birth dose of monovalent hepatitis B vaccine has been given to an infant of an HBsAg-negative mother?

Yes. Infants who receive a monovalent dose of hepatitis B vaccine at birth can be given three doses of Comvax on its recommended schedule. In the end, these infants will receive a total of four doses of hepatitis B vaccine, a schedule that has been used in other parts of the world. In addition, Comvax may be used whenever one needs to administer both Hib and hepatitis B vaccines at the same visit.

Can Comvax be used to complete the series (after the birth dose and HBIG have been given) to an infant of an HBsAg-positive mother?

Yes. While Comvax use has not been studied in infants born to HBsAg-positive mothers for completion of postexposure prophylaxis, there is no reason to believe that Comvax cannot be used to complete the vaccination series for these infants (at 2, 4, and 12–15 months of age). In population-based studies, infants who received HBIG and hepatitis B vaccine at birth, followed by the individual vaccine components of Comvax at the appropriate intervals, demonstrated no evidence of a decrease in postexposure effectiveness.

For over a decade, CDC has recommended completing the hepatitis B vaccine series for infants of HBsAg-positive mothers by 6 months of age. However, in the February 1997 ACIP meeting, the committee did recommend Comvax for use in completing the series for high-risk infants as well as all other infants. The downside to this approach is the difficulty in tracking infants over a longer period of time to perform both HBsAg and anti-

(continued on page 20)

HBs postvaccination testing and to assure that household contacts are appropriately managed.

U.S. newborns continue to be infected with HBV. What more can be done?

It is as simple as following standard of care. All women should be screened for HBsAg early with each pregnancy. Testing should be repeated if the woman has never been vaccinated and has risk factors for HBV infection such as an STD, injection drug use, or multiple sex partners. If a risk factor is identified during pregnancy, the woman should be started on the hepatitis B vaccine series right away.

All hospitals should give the first dose of hepatitis B vaccine at birth. The birth dose acts as a safety net if screening for HBsAg is not performed, misordered, misinterpreted, or mistranscribed. In addition, studies have shown that infants who receive the birth dose of hepatitis B vaccine are more likely to complete their childhood immunizations on schedule.

How do I interpret some of the common hepatitis B panel results?

Editor's note: See column three on page 21 for a glossary of hepatitis A and B terminology.

Tests	Results	Interpretation
HBsAg anti-HBc anti-HBs	negative negative negative	susceptible
HBsAg anti-HBc anti-HBs	negative negative positive with ≥10mIU/mL*	immune due to vaccination
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretations possible†

*Postvaccination testing, when it is recommended, should be performed 1–2 months following dose #3.

†1. May be recovering from acute HBV infection.
2. May be distantly immune and the test is not sensitive enough to detect a very low level of anti-HBs in serum.
3. May be susceptible with a false positive anti-HBc.
4. May be chronically infected and have an undetectable level of HBsAg present in the serum.

Do women who have been previously vaccinated against hepatitis B still need to be screened during pregnancy?

Yes. Women who have been vaccinated against hepatitis B should still be screened for HBsAg early with each pregnancy. Just because a woman has been vaccinated does not mean she is HBsAg-negative. Since postvaccination testing is not performed for most vaccinated persons, she could have been vaccinated even though she was already HBsAg-positive.

What are the recommended doses and schedules of hepatitis B vaccine for adolescents?

The adolescent vaccines on a three-dose schedule are Recombivax HB 5mcg/0.5 mL and Engerix-B 10mcg/0.5 mL. Adolescents (11–19 years) can be vaccinated on a 0-, 1-, 6-month schedule; a 0-, 2-, 4-; a 0-, 1-, 4-; or a 0-, 12-, 24-. Choice of schedule should be used to facilitate the highest rate of vaccination compliance. In October 1999, ACIP approved an alternative two-dose schedule for adolescents aged 11 through 15 using the adult formulation of Recombivax HB (10mcg/1.0 ml), with dose #2 given 4–6 months after dose #1.

Who should have an anti-HBs test after receiving three doses of hepatitis B vaccine?

It is only necessary to confirm the immune response of persons in the following risk groups:

- health care workers who are at risk of exposure to blood or body fluids in the workplace
- infants born to HBsAg-positive mothers
- immunocompromised persons, e.g., dialysis patients, AIDS patients
- sex partners of HBsAg-positive persons

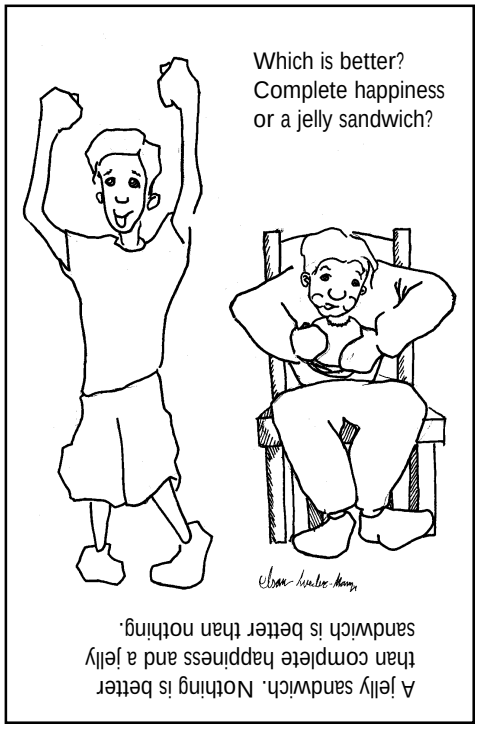
Testing is not recommended after routine vaccination of infants, children, or adolescents.

If I received the hepatitis B vaccination series 12 years ago and had a positive antibody titer 2 months later, am I still protected?

Yes. If you developed adequate hepatitis B surface antibody (anti-HBs ≥10mIU/mL) after the initial series, you should still be protected from clinical disease and chronic infection. Periodic testing and routine boosting is not necessary. Among persons who once produced a protective level of anti-HBs following immunization and who subsequently lost detectable anti-HBs, booster doses of vaccine induce a rapid rise in anti-HBs, indicative of an anamnestic (immune memory) response. Therefore, antibody levels obtained through repeat testing may not accurately reflect immunity and are not necessary.

How long should a person wait to donate blood after a dose of hepatitis B vaccine?

Recent data have shown transient HBsAg-positivity as late as 21 days after a dose of hepatitis B vaccine. Based on these data, waiting one month until donation is advisable. (This updates "Ask the Experts" information published Oct. 1998.)



If you want to test and vaccinate your patient for hepatitis B on the same day, does it matter if you test or vaccinate first?

It might. You should draw the blood first and then administer the first dose of vaccine, because transient HBsAg-positivity has been found to occur after a dose of hepatitis B vaccine (see previous question).

If someone is found to have chronic HBV infection, does everyone in that person's household need to receive hepatitis B vaccine and HBIG?

All susceptible household members and sex partners of persons with chronic HBV infection should be vaccinated. The use of HBIG is not indicated in this situation for either sex partners or household contacts. When feasible, sex partners should have prevaccination testing to determine susceptibility because of the high likelihood that they are already infected. Susceptible partners should be vaccinated since vaccine alone provides a high level of postexposure protection; subsequently vaccinated partners should have postvaccination testing for anti-HBs. Until seroprotection is assured (anti-HBs of ≥10mIU/mL), condoms should be used. (The efficacy of latex condoms in preventing HBV infections is unknown, but their proper use may reduce transmission.)

Additionally, one may choose to do prevaccination testing on household contacts to aid in a complete health assessment.

How often do hemodialysis patients who have received hepatitis B vaccination have to be screened for anti-HBs and HBsAg?
Hemodialysis patients are considered immune as long as they have adequate anti-HBs (≥10 mIU/mL). For hemodialysis patients who have responded with adequate anti-HBs to hepatitis B vaccination, no HBsAg testing is needed but anti-HBs should be done annually. If anti-HBs declines below 10mIU/mL, a booster dose of hepatitis B vaccine should be given and then annual anti-HBs testing should be continued. Retesting immediately after the booster dose is not necessary. This recommendation is necessary because hemodialysis patients are immunocompromised; they do not retain immune memory as do patients whose immune systems are not compromised.

Hemodialysis patients who do not respond to an initial vaccine series should be revaccinated with three or four additional doses of hepatitis B vaccine (depending on the brand). Postvaccination testing for anti-HBs should follow 1–2 months later. Until the patient is found to have an adequate anti-HBs level, monthly HBsAg testing should be done. If the patient continues to have low (<10mIU/mL) or no anti-HBs and a total of six or eight doses (depending on the brand) of hepatitis B vaccine have been given, the patient should be considered a nonresponder to vaccination and susceptible to HBV infection. Monthly HBsAg testing should be continued and no periodic anti-HBs testing is needed.

Is there any new information about using intradermal hepatitis B vaccine for high-risk nonresponders instead of administering the vaccine intramuscularly?
No. This is still not an approved route of administration.

Do you have patients who are HBsAg-positive?

They need medical monitoring and many can benefit from treatment.

There are two FDA-licensed treatment options available in the United States:

1. interferon alfa-2b, recombinant administered subcutaneously
2. lamivudine administered orally

Consult a liver specialist experienced in the treatment of viral hepatitis for appropriate monitoring guidelines and to help you determine which of your patients might benefit from treatment.

Hepatitis A

by Harold Margolis, MD, and Linda Moyer, RN

How should I use the new hepatitis A and hepatitis B combination vaccine called Twinrix?
Twinrix (GlaxoSmithKline) is indicated for persons 18 and older who need both hepatitis A and B vaccination. Primary immunization consists of three doses, given on a 0-, 1-, and 6-month schedule, the same schedule as that used for single-antigen hepatitis B vaccine.

How effective is this new hepatitis A and hepatitis B combination vaccine?
Twinrix appears to be as effective for preventing hepatitis A and hepatitis B as the monovalent vaccines.

We're thinking of using Twinrix and we're wondering whether we can use it for doses #1 and #3 only and use single antigen hepatitis B vaccine for dose #2?
No. Twinrix contains 50% less hepatitis A antigen component than Havrix (GSK's single-antigen hepatitis A vaccine [720 vs 1440 Elisa Units]). For this reason, three doses of Twinrix must comprise the series.

A patient who is leaving for Africa next month was given 2 doses of hepatitis A vaccine 5 years ago. Does she need a booster dose?
No. Kinetic modeling suggests that hepatitis A vaccine is effective for at least 20 years.

If a mother is acutely infected with HAV, can she continue to breastfeed?
Yes. HAV has not been known to be transmitted through breast milk. However, immune globulin should be given to the baby and other household and sexual contacts. The mother should also be instructed to wash her hands well after using the toilet, before picking up her infant, and before preparing food.

When is it too late to give immune globulin following an exposure to hepatitis A?
Immune globulin should be administered within two weeks of exposure to HAV. Data suggests that effectiveness is diminished after this time period.

Hepatitis A and B lab tests

Hepatitis B lab nomenclature

HBsAg: *Hepatitis B surface antigen* is a marker of infectivity. Its presence indicates either acute or chronic HBV infection.

anti-HBs: *Antibody to hepatitis B surface antigen* is a marker of immunity. Its presence indicates an immune response to HBV infection, an immune response to vaccination, or the presence of passively acquired antibody. (It is also known as ***HBsAb,*** but this abbreviation is best avoided since it is often confused with abbreviations such as HBsAg.)

anti-HBc: *Antibody to hepatitis B core antigen* is a marker of acute, chronic, or resolved HBV infection. It is *not* a marker of vaccine-induced immunity. It may be used in prevaccination testing to determine previous exposure to HBV infection. (It is also known as ***HBcAb,*** but this abbreviation is best avoided since it is often confused with other abbreviations).

IgM anti-HBc: *IgM antibody subclass of anti-HBc*. Positivity indicates recent infection with HBV (≤6 mos). Its presence indicates acute infection.

IgG anti-HBc: *IgG antibody subclass of anti-HBc* is a marker of past or current infection with HBV. If it and HBsAg are both positive (in the absence of IgM anti-HBc), this indicates chronic HBV infection.

HBeAg: *Hepatitis B "e" antigen* is a marker of a high degree of HBV infectivity and it correlates with a high level of HBV replication. It is primarily used to help determine the clinical management of patients with chronic HBV infection.

Anti-HBe: *Antibody to hepatitis B "e" antigen* may be present in an infected or immune person. In persons with chronic HBV infection, its presence suggests a low viral titer and a low degree of infectivity.

HBV-DNA: *HBV Deoxyribonucleic acid* is a marker of viral replication. It correlates well with infectivity. It is used to assess and monitor the treatment of patients with chronic hepatitis B infection.

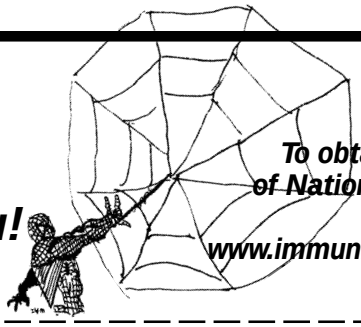
Hepatitis A lab nomenclature

anti-HAV: *Antibody to hepatitis A virus*. This diagnostic test detects total antibody of both IgG and IgM subclasses of HAV. Its presence indicates either acute or resolved infection, or vaccine-induced immunity.

IgM anti-HAV: *IgM antibody subclass of anti-HAV.* Its presence indicates a recent infection with HAV. It is used to diagnose acute hepatitis A. ♦

National Resources

There are many places that can help you!



To obtain the Directory of National Immunization Resources, visit: www.immunize.org/resources

If you know of new resources, call us at (651) 647-9009 or e-mail us at admin@immunize.org

Here's what's new!

New video! ***Immunization Techniques: Safe, Effective, Caring*** (CA Department of Health, 2001, 35 min). This brand-new video shows the latest injection techniques for immunizing children and adults. Each video comes with presenter's notes and a skills checklist. $15. For more information, call the Immunization Action Coalition at (651) 647-9009 or order online at: www.immunize.org/iztech

New video! ***Vaccines: Separating Fact from Fear*** (Vaccine Education Center, Children's Hospital of Philadelphia, 2001, 27 min). Created to answer parents' questions about the benefits and risks of vaccines, this video presents comprehensive, easy-to-understand information. Two videos can be ordered for each medical practice site free of charge. To order, call (215) 590-9990 or go to: http://vaccine.chop.edu

Reference Guide on Vaccines and Vaccine Safety (National Partnership for Immunization, 2001). This 60-page guide explains why vaccines are an integral part of U.S. public health programs, summarizing vaccine studies that have provided the safety data necessary for the licensure of each vaccine. Sections include how vaccines work, how they are regulated, vaccine safety issues, and disease surveillance. $20. For more information, call (703) 836-6110 or order the guide online at: www.partnersforimmunization.org/guidebook.html

Directory of National Immunization Resources (Interim Update Edition, IAC, 2001). The IAC's 49-page directory is a concise yet comprehensive guide to organizations, websites, videos, hotlines, periodicals, books, and more. $10 for the first copy, less for multiple copies. For more information, call (651) 647-9009 or order online or download a copy free of charge from IAC's website at: www.immunize.org/resources

Resource Guide for Adult and Adolescent Immunization, 5th ed. (NCAI, 2001). This 188-page catalog lists immunization materials from numerous organizations. Resources are grouped by the ten major vaccine-preventable diseases. $20. To obtain a copy, call (301) 656-0003 or order online at: www.nfid.org

Health Information for International Travel, 2001-2002 (The Yellow Book, CDC). This book contains vaccine information and requirements for foreign travel. $25. To order, call Public Health Foundation at (877) 252-1200 or order online at: http://bookstore.phf.org

Organizations with immunization and hepatitis information

Routine Immunization

Allied Vaccine Group	www.vaccines.org
All Kids Count (www.allkidscount.org)	(404) 687-5615
American Academy of Pediatrics (www.aap.org) ★	(800) 433-9016
Association of Teachers of Preventive Medicine (www.atpm.org)	(800) 789-6737
CDC's Immunization Information Hotline	(800) 232-2522
CDC's Immunization Information Hotline (Spanish language) ★	(800) 232-0233
CDC's *Morbidity and Mortality Weekly Report*	www.cdc.gov/mmwr
CDC's Voice & Fax Immunization Resource Request Line	(888) 232-3228
CDC's National Immunization Program website	www.cdc.gov/nip
CDC's Vaccine Safety website	www.cdc.gov/nip/vacsafe
CDC's Vaccines For Children (VFC) program website	www.cdc.gov/nip/vfc
CDC's Travel Website & Info Line (www.cdc.gov/travel)	(877-FYI-TRIP) (877) 394-8747
Every Child by Two (www.ecbt.org)★	(202) 783-7034
Immunization Action Coalition (www.immunize.org) ★	(651) 647-9009
Immunization Action Coalition's *IAC EXPRESS*	www.immunize.org/express
Immunization Action Coalition's *Unprotected People*	www.immunize.org/stories
Immunization Gateway website	www.immunofacts.com
Institute for Vaccine Safety	www.vaccinesafety.edu
Nat'l Alliance for Hispanic Health (www.hispanichealth.org)★	(202) 387-5000
Nat'l Coalition for Adult Immunization (www.nfid.org/ncai) ★	(301) 656-0003
Nat'l Network for Immunization Information (www.immunizationinfo.org)	(877) 341-6644
Nat'l Partnership for Immunization (www.partnersforimmunization.org)	(301) 656-0003
Nat'l Vaccine Injury Compensation Program (http://bhpr.hrsa.gov/vicp)	(800) 338-2382
100% Immunization Campaign (www.immunizeseniors.org)	(703) 739-1300
Vaccine Adverse Events Reporting System (www.vaers.org)	(800) 822-7967
Vaccine Education Center (http://vaccine.chop.edu)	(215) 590-9990
Your health department's immunization program manager (see page 23)	_____

Hepatitis Information

American Liver Foundation (www.liverfoundation.org) ★	(800) 223-0179
CDC's Hepatitis Information Line ★	(888) 443-7232
CDC's Hepatitis Division of Viral Hepatitis website ★	www.cdc.gov/hepatitis
CDC's National STD/AIDS Hotline	(800) 227-8922
Hepatitis B Coalition (www.immunize.org) ★	(651) 647-9009
Hepatitis B Foundation (www.hepb.org) ★	(215) 489-4900
Hepatitis B Online Support Group	send a blank e-mail to: hepatitis-b-on@mail-list.com
Hepatitis Control Report (www.hepatitiscontrolreport.com)	(610) 664-2793
Hepatitis Foundation International (www.hepfi.org) ★	(800) 891-0707
Nat'l Hepatitis B Task Force: Focus on API (www.aapihp.com/hepbtf) ★	(614) 766-5219
Parents of Kids with Infectious Diseases (www.pkids.org)	(877-55-PKIDS) (877) 557-5437
PEPLine: 24-hr hotline to advise clinicians re: occupational blood exposures	(888) 448-4911
Your health department's hepatitis coordinator (see page 23)	_____

Pharmaceutical Companies

Aventis Pasteur, Inc. (www.aventispasteur.com)	(800-VACCINE) (800) 822-2463
Bayer Biologicals (www.bayerbiologicals.com)	(800) 468-0894
Chiron Corporation (www.chiron.com)	(800) 244-7668
GlaxoSmithKline (www.GSKvaccines.com)	(888) 825-5249
Merck & Co. (www.merckvaccines.com)	(800) 672-6372
Nabi (www.nabi.com)	(800) 458-4244
Wyeth Lederle Vaccines (www.vaccineworld.com)	(800) 358-7443

★ materials available in languages other than English

To find out about more national resources, visit www.immunize.org/resources

Need Help?

Call your immunization, hepatitis, and VFC coordinators

Your governmental resource people are available to help you! Find out about their educational materials including posters, brochures, and videos. Call them to register for the excellent immunization conferences that CDC broadcasts by satellite. They may also be able to help you assess your clinic's immunization rates or develop immunization tracking systems.

State and Project Coordinators

Alabama
Iz: Winkler Sims 334-206-5023
Hep B (So. AL): Judy Till, RN 334-575-7835
Hep B (No. AL): Janet Mitchell 256-582-3174
VFC: Cynthia Lesinger 800-469-4599

Alaska
Iz: Laurel Wood 907-269-8000
Hep B: Ken Browning 907-269-8000
VFC: Laurel Wood 907-269-8000

Arizona
Iz: Kathy Fredrickson 602-230-5852
Hep B: Linda Faris 602-230-5858
VFC: Betty Finch 602-230-5832

Arkansas
Iz: Kaleem Sayyed 501-661-2723
Hep B: Sherry Ahring 501-661-2053
VFC: Ruby Jones 501-661-2170

California
Iz: Natalie Smith, MD 510-540-2065
Hep B: Maggie Chiang 510-540-2393
VFC: John Scott 510-704-3750

Colorado
Iz: Rebecca Jordan 303-692-2795
Hep B: Amy Warner 303-692-2673
VFC: Rosemary Spence 303-692-2798

Connecticut
Iz: Vincent Sacco 860-509-7929
Hep B: Monica Rak 860-509-7900
VFC: Timothy Egan 860-509-7929

Delaware
Iz: Steven Dettwyler 302-739-4746
Hep B: Laura Gannon 302-739-4746
VFC: Martin Luta 302-739-4746

District of Columbia
Iz: James Giandelia 202-576-7130 x25
Hep B: Ethel Holland 202-442-9141
VFC: DeWanda Eaton 202-576-7130 x43

Florida
Iz: Charles Alexander 850-245-4342
Hep B: Tony Richardson 850-245-4342
VFC: Al Sulkes 850-245-4342

Georgia
Iz: Michael Chaney 404-657-3158
Hep B: Theresa Turski 404-657-3158
VFC: Jean Popiak 404-657-3158

Hawaii
Iz: Malama Markowitz 808-586-8330
Hep B: Joe Elm 808-586-8307
VFC: Loriann Kanno 808-586-8329

Idaho
Iz: Holly Mercer 208-334-5942
Hep B: Jeff Kingsbury 208-334-5967
VFC: Bob Salisbury 208-334-4949

Illinois
Iz: Karen McMahon 217-785-1455
Hep B: Susan Williams 217-785-1455
VFC: Mark Amerson 217-785-1455

IL, Chicago
Iz: Cheryl Byers 312-746-6120
Hep B: Monty Dobzyn 312-746-7147
VFC: Maribel Chavez-Torres 312-746-6050

Indiana
Iz: Michael Runau 317-233-7010
Hep B: Beverly Sheets, RN 317-501-5722
VFC: Terry Adams 317-233-7704

Iowa
Iz: Carolyn Jacobson 515-281-4938
Hep B: Tina Patterson 515-281-7053
VFC: Don Callaghan 515-281-7301

Kansas
Iz: Vivian Kuawogai 785-296-5591
Hep B: Jennifer Hill 785-296-8156
VFC: Patti Smith 785-827-9639

Kentucky
Iz: Victor Negron 502-564-4478
Hep B: Gena Gilbert 502-564-4478
VFC: Laura Harrod 502-564-4478

Louisiana
Iz: Ruben Tapia 504-483-1900
Hep B: Cathy Scott 318-345-1700
VFC: Patricia Simon 504-483-1900

Maine
Iz: Lisa Tuttle 207-287-5716
Hep B: Paul Moffat 207-287-8150
VFC: Linda Huff 207-287-4068

Maryland
Iz: Gregory Reed 410-767-6679
Hep B: Maryann Harder 410-767-5716
VFC: Ed Hirshorn 410-767-6679

Massachusetts
Iz: Pejman Talebian 617-983-6803
Hep B: Martha Badger 617-983-6850
VFC: Marie O'Donnell 617-983-6824

Michigan
Iz: Dr. Gillian Stoltman 517-335-8159
Hep B: Nancy Fasano 517-335-9423
VFC: Susan Wright 517-335-8161

MI, Detroit & SE Michigan
Iz: Stella Bayless 313-876-4335
Hep B: Therese McGratty 313-256-1873
VFC: Angela Sorrells 313-876-4601

Minnesota
Iz: K. Ehresmann/D. Peterson 612-676-5237
Hep B: Stephanie Frank 612-676-5237
VFC: Barbara Ottis 612-676-5237

Mississippi
Iz: Joy Sennett 601-576-7751
Hep B: Joyce Booth 601-576-7751
VFC: Regina Irvin 601-576-7751

Missouri
Iz: Vic Tomlinson 573-751-6133
Hep B: Ruby McPherson 800-699-2313
VFC: Ruby McPherson 800-699-2313

Montana
Iz: Joyce Burgett 406-444-0065
Hep B: Marci Eckerson 406-444-1805
VFC: Elizabeth LeLacheur 406-444-0277

Nebraska
Iz: T. Grey Bordon 402-471-6423
Hep B: Molly Uden 402-471-0301
VFC: Molly Uden 402-471-0301

Nevada
Iz: Robert Salcido 775-684-5939
Hep B: Robert Salcido 775-684-5939
VFC: Linda Platz, RN 775-684-5913

New Hampshire
Iz: Charles Haenal 603-271-4482
Hep B: Susan Bascom 603-271-8325
VFC: Sandra Kelsey 603-271-4634

New Jersey
Iz: Charles O'Donnell 609-588-7512
Hep B: Nancy Borsuk 609-588-7512
VFC: Barbara Giudici 609-588-7512

New Mexico
Iz: Melissa Moore 505-827-2463
Hep B: Reena Szczepanski 505-827-2507
VFC: Carly Christian 505-827-2898

New York
Iz: David Lynch 518-473-4437
Hep B: Betsy Herlihy 518-473-4437
VFC: Patricia O'Hanlon 518-473-4437

NY, NYC
Iz: Arsenia Delgato 212-676-2259
Hep B: Davis Thanjan 718-520-8245
VFC: Dileep Sarecha 212-676-2298

North Carolina
Iz: Beth Rowe-West 919-715-6768
Hep B: Patricia Poole 919-715-6777
VFC: Barbara Laymon 919-715-6764

North Dakota
Iz: Barbara Frohlich 701-328-2035
Hep B: Tracy Miller 701-328-2387
VFC: Patrick Flanagan 701-328-4556

Ohio
Iz: Leonard Payton 614-466-4643
Hep B: Joseph Bronowski 614-466-4643
VFC: Kent Ware 614-466-4643

Oklahoma
Iz: Don Blose 405-271-4073
Hep B: Leonard Lang 405-271-4073
VFC: Dorothy Cox 405-271-4073

Oregon
Iz: Lorraine Duncan 503-731-4135
Hep B: Hilary Gillette 503-731-4807
VFC: Mimi Luther 503-731-4267

Pennsylvania
Iz: Alice Gray 717-787-5681
Hep B: Phuoc Tran 717-787-5681
VFC: Vickie Petrina 717-787-5681

PA, Philadelphia
Iz: James Lutz 215-685-6854
Hep B: Barbara Watson 215-685-6842
VFC: Mary Mulholland 215-685-6853

Rhode Island
Iz: Susan Shepardson 401-222-4603
Hep B: Patricia Raymond, RN 401-222-5921
VFC: Mimi Larzelere 401-222-4605

South Carolina
Iz: Jesse Greene 803-898-0460
Hep B: Libby Greene 803-898-0792
VFC: Jesse Greene 803-898-0460

South Dakota
Iz: Michelle Hudecek 605-773-5323
Hep B: Michelle Hudecek 605-773-5323
VFC: Michelle Hudecek 605-773-5323

Tennessee
Iz: Jerry Narramore 615-741-7343
Hep B: Sally Somerfeldt 615-532-8508
VFC: Jonna Goosetree 615-741-7247

Texas
Iz: Jan Pelosi, MPH 512-458-7284
Hep B: Rita Espinoza 512-458-7284
VFC: Jack Sims 512-458-7284

TX, Houston
Iz: Brock Lamont 713-794-9267
Hep B: Toni Wafeeg 713-798-0812
VFC: Maureen Moore 713-558-3535

TX, San Antonio
Iz: Mark Ritter 210-207-8794
Hep B: Nancy Walea 210-207-2087
VFC: Vivian Flores 210-207-2868

Utah
Iz: Linda Abel 801-538-9450
Hep B: Martee Hawkins 801-538-9450
VFC: Jan Kilpack 801-538-9450

Vermont
Iz: Carolyn Greene 802-863-7638
Hep B: Marilyn Proulx 802-863-7245
VFC: Karen Halverson 802-863-7638

Virginia
Iz: James Farrell 804-786-6246
Hep B: Marie Krauss 804-786-6246
VFC: Shannon Leary 804-786-6246

Washington
Iz: Margaret Hansen 360-236-3595
Hep B: Trang Kuss 360-236-3555
VFC: Katherine Harris-Wollburg 360-236-3513

West Virginia
Iz: Herman DeBoard 304-558-2188
Hep B: Beverly Littman 304-558-6441
VFC: Jeff Neccuzi 304- 558-6437

Wisconsin
Iz: Dan Hopfensperger 608-266-1339
Hep B: Jerry Gabor 608-266-8621
VFC: Jaclyn Nelson 608-266-1506

Wyoming
Iz: James D. McKinna 307-777-6001
Hep B: James D. McKinna 307-777-6001
VFC: Robin Chandler (acting) 307-777-7466

Territories

American Samoa
Iz: Joseph Tufa 011-684-633-4606
Hep B: Sylvia Tauiliili 011-684-633-4606
VFC: Sylvia Tauiliili 011-684-633-4606

Federated States of Micronesia
Iz: Kidsen K. Iohp 011-691-320-2872
Hep B: Kidsen K. Iohp 011-691-320-2872

Guam
Iz: Ron Balajadia 671-735-7143
Hep B: Annie Lizama 671-735-7148
VFC: Michele Leon Guerrero 671-735-7143

Mariana Islands
Iz: Mariana Sablan 011-670-236-8733
VFC: Mariana Sablan 011-670-236-8733

Republic of the Marshall Islands
Iz: Donald Capelle 011-692-625-5660
Hep B: Kenner Brianb 011-692-625-3355

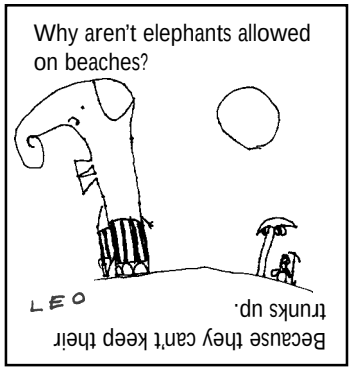
Puerto Rico
Iz: Esteban Calderon 787-274-5612
Hep B: Carmen Rodríguez 787-274-5525
VFC: Margarita Sabathie 787-274-3337

Republic of Palau
Iz: Rosemary Kiep 011-680-488-1757

Virgin Islands
Iz: Beverly Blackwell 340-776-8311 x2151
Hep B: C. Vanterpool 340-776-8311 x2152

Indian Health Service

National Indian Health Service
Iz: Amy V. Groom 505-248-4374
Hep B: Doug Thoroughman 505-248-4826



Coalition Catalog

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- **All our materials, reviewed by national experts, are camera-ready and copyright-free! You can order one of any item (including videos) and make as many copies as you need.**
- **A $60 membership contribution entitles you to a copy of all IAC print materials as well as our brightly colored mousepad!**
- **Most items cost $1 (unless otherwise noted).**
- **To order materials, see instructions on page 26.**
- **Date of latest revision indicated in parentheses.**

REMEMBER . . .

A $60 annual membership contribution brings you camera-ready copies of ALL of the Coalition's print materials. See the order form or the back page for information on how to join!

★ Starred items are available in languages other than English.

Key to Languages:
En: English
Sp: Spanish

Ab: Arabic
Am: Amharic
Ar: Armenian
Ca: Cambodian
Ch: Chinese
Far: Farsi
Hm: Hmong
Ja: Japanese
Ko: Korean
La: Laotian
Mi: Mien
Po: Portuguese
Ro: Romanian
Ru: Russian
Sa: Samoan
So: Somali
Ta: Tagalog
Ti: Tigrinya
Tu: Turkish
Vi: Vietnamese

Due to space limitations we cannot individually credit the new translations that appear in this catalog. We gratefully acknowledge all the translations provided by Dr. Mustafa Kozanoglu and Dr. Murat Serbest, Adana, Turkey (Turkish); Suffolk County Department of Health Services, New York (Spanish); State of New York (Chinese, Spanish); State of California (Spanish); St. Paul-Ramsey Co. Public Health (Hmong); and Centers for Disease Control and Prevention (Spanish).

Materials for your patients

★ ***Revised and new translations!*** **Immunizations for babies.** A picture of the shot schedule. En, Sp, Tu (7/01). *Item #P4010*

★ **After the shots . . . what to do if your child has discomfort.** En, Sp, Tu (8/99); Ca, Ch, Fa, Hm, Ko, La, Ru, Ta, Vi (10/97). *Item #P4015*

★ ***Revised and new translations!*** **Are you 11–19 years old? Then you need to be vaccinated!** Covers all vaccinations for teenagers. En, Sp, Tu (7/01). *Item #P4020*

Questions parents ask about baby shots. A brochure about childhood vaccinations. En (4/00). *Item #P4025*

Vaccinations for adults—you're never too old to get shots! A visual table covering all adult vaccinations. En (10/00). *Item #P4030*

★ **Immunizations . . . not just kids' stuff.** Adult immunization brochure. En, Sp (9/00). *Item #P4035*

New! **Do I need any vaccinations today?** A 2-page screening questionnaire for adult patients to find out about what shots they need. En (11/01). *Item #P4036*

Revised! **What would happen if we stopped vaccinations?** A CDC publication that discusses by disease the potential risks of stopping vaccinations. En (11/01). *Item #P4037*

Vaccine myths. A reprint of chapter 16 of the book *Vaccines: What Every Parent Should Know* (IDG Books Worldwide, 1999), written by P.A. Offit, MD, and L.M. Bell, MD. En (1/00). *Item #P4038*

Shots for adults with HIV. En (7/97). *Item #P4041*

Vaccinations for adults with hepatitis C. En (5/00). *Item #P4042*

★ **When do children and teens need vaccinations?** A picture of the shot schedule. En, Sp (9/00). *Item #P4050*

★ **All kids need hepatitis B shots!** A brochure that tells parents all children 0–18 years old need hepatitis B shots. En, Sp, Ar, Ca, Ch, Fa, Hm, Ja, Ko, La, Po, Ro, Ru, Sa, So, Ta, Tu, Vi (4/98). *Item #P4055*

★ **Chickenpox isn't just an itchy, contagious rash.** A brochure for all ages. En, Sp, Vi (1/96). *Item #P4070*

New! **Hepatitis A, B, and C: Learn the Differences.** En (11/01). *Item #P4075*

★ **Hepatitis A is a serious liver disease . . . should you be vaccinated?** A brochure for all ages. En, Sp, Vi (10/97). *Item #P4080*

★ **Questions frequently asked about hepatitis B.** Four pages of commonly asked questions. En, Sp (9/96). *Item #P4090*

★ **Every week hundreds of teens are infected with hepatitis B.** A brochure for teens and parents. En, Sp, Ca, Ch, Hm, Ko, La, Ru, Ta, Tu, Vi (6/97). *Item #P4100*

Revised! **Hepatitis B shots are recommended for all new babies.** A brochure for parents of newborns. En (9/01). *Item #P4110*

★ **Every week thousands of sexually active people are infected with hepatitis B.** En, Sp (4/98). *Item #P4112*

If you have sex, read this . . . and stop a killer STD from sneaking up on you! Use this article to help convince young women to get vaccinated against hepatitis B. Reprinted from *Mademoiselle.* En (2/99). *Item P4113*

★ ***Revised and new translation!*** **Hepatitis B . . . 100 times easier to catch than HIV.** A brochure for men who have sex with men. En, Tu (5/01). *Item #P4115*

You don't have to go all the way to get hepatitis A. A brochure for men who have sex with men. En (6/97). *Item #P4116*

FREE MATERIALS ONLINE! All of these items are available free on our website at www.immunize.org/free

You are not alone! Article for teens with chronic HBV infection. By S.J. Schwarzenberg, MD, Univ. of Minnesota; and K. Wainwright, RN, Alaska Area Native Health Service, Anchorage. En (2/01). *Item #P4118*

★ ***New translations!*** **Do you have chronic hepatitis B?** How to take care of yourself. En, Sp, Ch, Tu (1/01). *Item #P4120*

Revised! **Brief introduction to hepatitis B for parents of adopted children.** Thanks to S.J. Schwarzenberg, MD, for her article. En (10/01). *Item #P4150*

Revised! **Confused about the hepatitis B panel?** For adoptive parents to help them understand hepatitis B test results. En (9/01). *Item #P4151*

Revised! **Hepatitis B vaccine is imperative for families adopting from abroad.** Thanks to Dr. J. Aronson for her article. En (9/01). *Item #P4153*

★ **If you, your parents, or your children were born in any of these places . . .** Encourages testing and vaccination. En, Ab, Am, Ca, Ch, Fa, Hm, Ko, La, Ru, So, Ti, Vi (5/95) *Item #P4170*

Revised! **Hepatitis B information for Asian and Pacific Islander Americans.** En (4/01). *Item #P4190*

Materials for your clinic staff

★ **Summary of rules for childhood immunization.** This two-sided reference table discusses the appropriate use, scheduling, and contraindications of childhood vaccines. En, Tu (3/01). *Item #P2010*

★ ***Revised!*** **Summary of recommendations for adult immunization.** A two-sided reference table on appropriate use, scheduling, and contraindications of adult vaccines. En, Tu (11/01). *Item #P2011*

Give these people influenza vaccine! A one-page checklist to help you decide whom to vaccinate. En (12/00). *Item #P2013*

Pneumococcal vaccine: Who needs it and who needs it again? A one-page Q&A with a table about revaccination. En (1/01). *Item #P2015*

New! **Vaccine products licensed for use in the United States, 2001.** En (11/01). *Item #P2019*

Revised! **Ask the experts.** Compilation of hundreds of Q&As on routine childhood and adult immunization issues published in past issues of *NEEDLE TIPS.* Written by CDC experts. En (6/01). *Item #P2021 - $5*

Vaccine administration record for children and teens. Keep children's and teens' immunization records in the front of their medical charts on this handy, one-page sheet. En (12/00). *Item #P2022*

Vaccine administration record for adults. Keep adults' immunization records on this handy, one-page sheet. En (12/00). *Item #P2023*

Revised! **It's federal law! You must give your patients current Vaccine Information Statements (VISs).** By N.A. Halsey, MD, Institute for Vaccine Safety, Johns Hopkins School of Public Health. Everything you need to know about VISs. En (8/01). *Item #P2027*

Tips to improve your clinic's immunization rates. For use in both pediatric and adult health settings. En (2/97). *Item #P2045*

Vaccinate, don't vacillate! Varicella kills 100 people each year in the U.S. What are you waiting for? By W.A. Orenstein, MD, Asst. Surgeon General, Director, NIP, CDC. En (10/98). *Item #P2058*

Hospitals and doctors sued for failing to immunize. Seven lawsuits against physicians and hospitals. En (9/94). *Item #P2060*

Revised! **Hepatitis A and B vaccines . . . be sure your patient gets the correct dose!** En (7/01). *Item #P2081*

No risk?? No way!! Reviews unusual transmissions of hepatitis B in "low-risk" individuals. En (9/94). *Item #P2100*

Hepatitis B and the health care worker. Includes postexposure prophylaxis guidelines and new Q&As. En (3/01). *Item #P2109*

Hepatitis B facts: testing and vaccination. A list of high-risk groups, interpretation of the hepatitis B panel, and a glossary. En (4/01). *Item #P2110*

Be as sure as you can be! Give babies hepatitis B vaccine at birth. By H.S. Margolis, MD, Director, CDC's Division of Viral Hepatitis. En (7/00). *Item #P2125*

Labor & delivery unit and nursery unit guidelines to prevent HBV transmission. En (2/01). *Item #P2130*

Management of chronic hepatitis B in children and adults. Four liver experts share management guidelines. By H. Conjeevaram, MD, Univ. of Chicago (4/99); C. Smith, MD, Minnesota Gastroenterology, Minneapolis, MN (4/99); B.J. McMahon, MD, Alaska Area Native Health Service, Anchorage, AK (4/99); and S.J. Schwarzenberg, MD, Univ. of Minnesota. En (8/94). *Item #P2164 - $5*

Tracking hepatitis B patients and contacts. En (11/98). *Item #P2180*

★ ***New translations!*** **Are you at risk for hepatitis A?** Use this questionnaire to assess your patients' risk factors. En, Sp, Tu (4/01). *Item #P2190*

★ ***New translations!*** **Are you at risk for hepatitis B?** Use this questionnaire to assess your patients' risk factors. En, Sp, Tu (10/01). *Item #P2191*

★ ***New translations!*** **Are you at risk for hepatitis C?** Use this questionnaire to assess your patients' risk factors. En, Sp, Tu (3/01). *Item #P2192*

Coalition kid art. Immunization artwork (babies, bears, balloons) you can use in your own brochures. (4/98). *Item #P3015 - $5*

Revised! **Sample vaccination clinic notification letter.** En (8/01). *Item #P3060*

Revised! **Community-based immunization clinic supplies checklist.** En (10/01). *Item #P3046*

New! **Checklist for safe vaccine handling and storage.** En (11/01). *Item #P3035*

★ ***New translations!*** **Screening questionnaire for child and teen immunization.** A form for the patient's parent/guardian to fill out to help staff evaluate which vaccines can be given safely at that day's visit. En, Sp, Ch, Hm, Tu (3/01). *Item #P4060*

★ ***Revised and new translations!*** **Screening questionnaire for adult immunization.** A form for your adult patients to fill out to help you evaluate which vaccines can be given safely at that day's visit. En, Sp, Ch, Hm, Tu (6/01). *Item #P4065*

Patient notification letter regarding hepatitis B test results. Sample letter explaining test results to patients. En (10/97). *Item #P4140*

HELP YOURSELF! All our materials are copyright-free! You can order one of any item listed and make as many copies as you need. Use the order form on page 27.

Videos

How to Protect Your Vaccine Supply (**Ice, Champagne, and Roses**) (California Dept. of Health, Minnesota Dept. of Health, 1996, 15 min). Includes print materials. *Item #V2010 - $10*

New! **Immunization Techniques: Safe, Effective, Caring** (California Dept. of Health, 2001, 35 min). A refresher course on the correct techniques for administering vaccines. Includes print materials. *Item #V2020 - $15*

Immunization Day! (UCLA, 1997, 13 min). An attention-holding vaccination video for middle school students. *Item #V2050 - $5*

★ **Family Album** (UCLA, 1997, 15 min). A video to encourage S.E. Asian parents to vaccinate their children on time. En, Ca, Hm, La, Mi. *Item #V4000 - $10 ea.*

Our Family, Our Strength (ALF, 1986, 19 min). A doctor discusses hepatitis B with a pregnant Asian woman who is HBsAg-positive. En. *Item #V4001 - $10*

★ **Hepatitis B—A Family's Story** (1995, 15 min). A doctor discusses hepatitis B with a pregnant woman who is HBsAg-positive. Dubbed into Cambodian. Includes English script. Ca *Item #V4025 - $10*

★ **Benh viem gan B va gia dinh bac Tam - Hepatitis B and Uncle Tam's Family** (VCHP, 1995, 11 min). A top-notch Vietnamese-language hepatitis B video with English script. Vi *Item #V4030 - $10*

New! **Change the Legacy: Catching Up With Hepatitis B** (H.A.P.I. Kids Program, San Diego Co. Health Dept., 1997, 12 min). A video and resource manual on how to develop hepatitis B vaccination programs to "catch-up" Asian and Pacific Islander children. Designed for administrators, program planners, and coordinators. En. *Item #*R2052 - $10

Photos, slides, posters, and more

Teen poster! **Roll up your sleeves!** Full-color 11"x17" poster of kids showing off their hepatitis B shots! *Item #Q2010 - 10 posters for $1 (order in units of 10)*

IAC mousepad. This mousepad is wildly colorful and irresistible! Order this while supplies last. *Item #R2000 - $3*

Photo notebook of vaccine-preventable diseases. Includes 20 full-page color photos of children and adults with vaccine-preventable diseases, and simple text that describes the diseases. Perfect for taking out into the community to give presentations. Outreach workers love it! (9/00). *Item #R2053 - $75*

Revised! **Directory of National Immunization Resources.** Packed with over 49 pages of useful information on organizations, websites, and hotlines that offer a wide array of immunization resources. En (5/01). *Item #R2065 - $10 (Discounts for multiple copies: 2 copies–$13; 3 copies–$15; 4 copies–$17; 5 copies–$20; please call if ordering six or more)*

Vaccine-preventable diseases slide set and script. Includes 31 slides of children and adults with vaccine-preventable diseases. Suitable for use by public health departments, community outreach workers, nursing schools, and medical teaching programs. Every clinic should have a set of these slides. Comes with scripts in En and Sp (12/00). *Item #S3010 - $25*

Revised! **Unprotected people: Stories of people who died or suffered from vaccine-preventable diseases.** Compilation of personal stories and case reports. All stories illustrate tragedies that occurred because someone wasn't immunized. En (1/99–5/01). *Items #T2011, #T2012, #T2013 and #T2014 - $5 for all 4 volumes*

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Join the Coalition! With a $60 gift or more, we will send you a complete packet of all our print materials in the languages you specify as well as one of our brightly colored mousepads.

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- Minimum order/donation is $10, please.
- Please prepay by check or credit card. Purchase orders accepted.
- You may fax us your credit card order or your purchase order. Be sure to include the card's expiration date.
- Checks must be in U.S. dollars.
- Make sure the order form accompanies your order.
- Orders are shipped via fourth-class mail. No charge for shipping and handling within the U.S.
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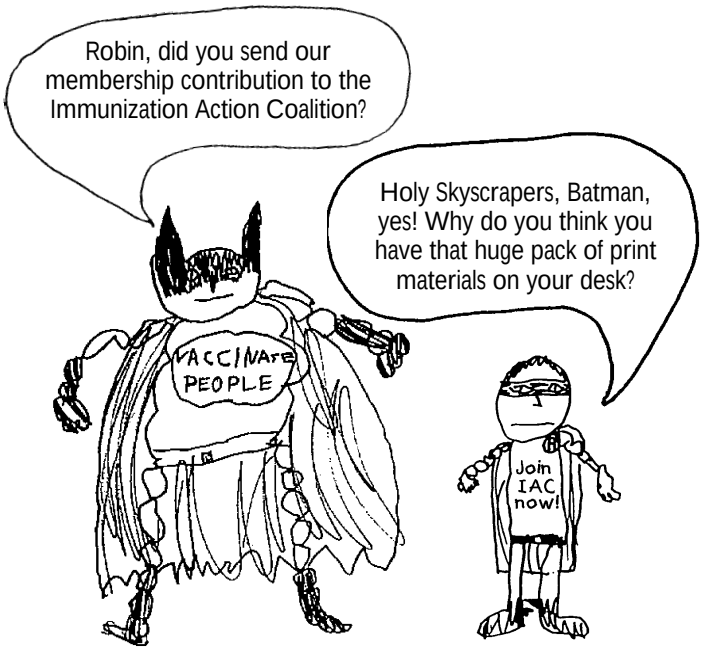

Coalition Order Form

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Immunization Action Coalition & Hepatitis B Coalition
1573 Selby Avenue, Suite 234, St. Paul, MN 55104
Phone (651) 647-9009 • Fax (651) 647-9131

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Languages:
En: English
Sp: Spanish
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Mi: Mien **Po:** Portuguese **Ro:** Romanian **Ru:** Russian **Sa:** Samoan
So: Somali **Ta:** Tagalog **Ti:** Tigrinya **Tu:** Turkish **Vi:** Vietnamese

Qty.		Materials for Your Patients	Amt.
___	P4010	Immunizations for babies: ☐En ☐Sp ☐Tu $1	_____
___	P4015	After the shots: What to do if your child has discomfort ☐En ☐Sp ☐Ca ☐Ch ☐Fa ☐Hm ☐Ko ☐La ☐Ru ☐Ta ☐Tu ☐Vi $1/ea	_____
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___	P4100	Every week hundreds of teens are infected with hep B: ☐En ☐Sp ☐Ca ☐Ch ☐Hm ☐Ko ☐La ☐Ru ☐Ta ☐Tu ☐Vi $1/ea	_____
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___	P4118	You are not alone: teens with hepatitis B $1	_____
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___	P4190	Hepatitis B info for Asian and Pacific Islander Americans $1	_____

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It's the Immunization Action Coalition's 11th anniversary!

Dear Colleagues:

This is our 31st issue of *NEEDLE TIPS and the Hepatitis B Coalition News,* and I think it might be the best issue ever! We've developed two new educational pieces for this issue—and two clinical "tools." We hope you'll use "Do I Need Any Vaccinations Today?" in your practice. This two-page questionnaire was designed to help adult patients self-assess their need for vaccinations. As you well know, taking an immunization history from a patient without an immunization record can be a time-consuming and daunting task. While your patient is in your office waiting, s/he can fill out this immunization history questionnaire. By the time you enter the exam room, the patient may be telling YOU which vaccinations s/he needs! Let us know what you think of it. The other new pieces are "Checklist for Safe Vaccine Handling and Storage," "Hepatitis A, B, and C: Learn the Differences," and "Vaccine Products Licensed for Use in the U.S., 2001." All these items are found inside between pages 7 and 11, but we've left off page numbers so your photocopies will be clean.

A reminder—IAC materials are camera-ready and copyright free. We invite you to make copies of any of our educational items and give them to your patients or staff members. You may place your clinic or practice name on our pieces and call them your own, but we'd appreciate your including the words "adapted from Immunization Action Coalition" on the item.

Of course, we need and appreciate financial contributions to IAC. We don't send out fundraising solicitations, but we know that many of you value IAC's work. When you send a contribution of $60 or more, you'll receive a complete packet of all our print materials, as well as one of our colorful mousepads. It's the end of the year and all contributions to IAC are tax deductible.

And don't forget to protect your patients during this influenza season by making sure that YOU are vaccinated against flu, too!

Deborah L. Wexler MD
Deborah L. Wexler, MD
Executive Director

Thank you, readers!
We appreciate your financial support.

Thank you to CDC!
CDC provides invaluable technical support as well as two federal grants.

Thank you for your educational grants to all the following:
- American Pharmaceutical Association
- Aventis Pasteur
- Bayer Biologicals
- Chiron Vaccines
- GlaxoSmithKline
- Medical Arts Press
- Merck & Co.
- Nabi
- Wyeth Lederle Vaccines

Welcome to American Nurses Credentialing Center family nurse practitioners.

IAC receives funding from a variety of sources, both public and private, and maintains strict editorial independence.

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