Viral Hepatitis.

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

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

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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To subscribe, send an e-mail message to express@immunize.org and place the word SU BSC RIBE in the “Subject:” field. You will receive timely immunization and hepatitis news via e-mail.

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

Needle Tips and the Hepatitis B Coalition News

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

V olume 11 - Number 2 Fall/Winter 2001–2002

• Call CDC’s Immunization Information
• Call your state health department
• E-mail nipinfo@cdc.gov

Immunization questions?

NEEDLE TIPS

Unprotected Babies: Babies are precious! Babies are precious! Babies are precious! Babies are precious! Babies are precious! HBsAg? Don’t let that baby—or ANY baby—leave the hospital without a birth dose of hepatitis B vaccine! See page 6.

Babies are precious!

Quick, Batman! To the Batmobile! Don’t let that baby—or ANY baby—leave the hospital without a birth dose of hepatitis B vaccine! See page 6.

The Immunization Action Coalition

Letterhead: The Immunization Action Coalition

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Babies are precious!
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 your video and other products will help fill this recognized training gap.

—Sandra Jo Hammer, PHN, MSN, MPH

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.

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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

What is harder than cutting school?

What is harder than cutting school?

What is harder than cutting school?

What is harder than cutting school?
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

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty.</th>
<th>Unit Price</th>
<th>Total</th>
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<tr>
<td>Immunization Techniques: 1-10 copies @ $15 ea</td>
<td></td>
<td>$15 each</td>
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<tr>
<td>Immunization Techniques: 11-100 copies @ $12 ea</td>
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<tr>
<td>Immunization Techniques: 101-500 copies @ $9 ea</td>
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<td>$ 9 each</td>
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<tr>
<td>For quantities over 500, please call (651) 647-9009.</td>
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(Please minimize use of abbreviations and print clearly.)

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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)
• “Vaccinia (Smallpox) Vaccine” (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 Prenvax 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.

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, 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.

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. 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 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.

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

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

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.

To read more articles and case reports about unprotected people of all ages, visit IAC’s website: www.immunize.org/stories
# 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.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1. We have a designated person in charge of the handling and storage of our vaccines.</td>
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<tr>
<td>2. We have a back-up person in charge of the handling and storage of our vaccines.</td>
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<tr>
<td>3. A vaccine inventory log is maintained that documents:</td>
<td></td>
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<tr>
<td>Vaccine name and number of doses received</td>
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<tr>
<td>Date the vaccine was received</td>
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<tr>
<td>Arrival condition of vaccine</td>
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<tr>
<td>Vaccine manufacturer and lot number</td>
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<tr>
<td>Vaccine expiration date</td>
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<tr>
<td>4. Our refrigerator for vaccines is either household-style or commercial-style, NOT dormitory-style. The freezer compartment has a separate door.</td>
<td></td>
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<tr>
<td>5. We do NOT store any food or drink in the refrigerator or freezer.</td>
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<tr>
<td>6. We store vaccines in the middle of the refrigerator or freezer, and NOT in the door.</td>
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<tr>
<td>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.</td>
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<tr>
<td>8. We check vaccine expiration dates and we first use those that will expire soonest.</td>
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<tr>
<td>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.</td>
<td></td>
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<tr>
<td>10. We always keep a thermometer in the refrigerator.</td>
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<tr>
<td>11. The temperature in the refrigerator is maintained at 35–46ºF (2–8ºC).</td>
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</tr>
<tr>
<td>12. We keep extra containers of water in the refrigerator to help maintain cold temperatures.</td>
<td></td>
</tr>
<tr>
<td>13. We always keep a thermometer in the freezer.</td>
<td></td>
</tr>
<tr>
<td>14. The temperature in the freezer is maintained at +5ºF (-15ºC) or colder.</td>
<td></td>
</tr>
<tr>
<td>15. We keep ice packs and other ice-filled containers in the freezer to help maintain cold temperatures.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>17. We have a “Do Not Unplug” sign next to the refrigerator’s electrical outlet.</td>
<td></td>
</tr>
<tr>
<td>18. In the event of a refrigerator failure, we take the following steps:</td>
<td></td>
</tr>
<tr>
<td>We assure that the vaccines are placed in a location with adequate refrigeration.</td>
<td></td>
</tr>
<tr>
<td>We mark exposed vaccines and separate them from undamaged vaccines.</td>
<td></td>
</tr>
<tr>
<td>We note the refrigerator or freezer temperature and contact the manufacturer or state health department to determine how to handle the affected vaccines.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>19. We have obtained a detailed written policy for general and emergency vaccine management from our local or state health department.</td>
<td></td>
</tr>
<tr>
<td>20. If all above answers are “yes,” we are patting ourselves on the back. If not, we have assigned someone to implement needed changes!</td>
<td></td>
</tr>
</tbody>
</table>
**Hepatitis A, B, and C: Learn the Differences**

<table>
<thead>
<tr>
<th>Hepatitis A caused by the hepatitis A virus (HAV)</th>
<th>Hepatitis B caused by the hepatitis B virus (HBV)</th>
<th>Hepatitis C caused by the hepatitis C virus (HCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How is it spread?</strong></td>
<td>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 &quot;works&quot; when &quot;shooting&quot; 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.</td>
<td>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 &quot;works&quot; when &quot;shooting&quot; 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.</td>
</tr>
</tbody>
</table>
| **Who is at risk?** | • Injecting and non-injecting drug users  
• Men who have sex with men  
• 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 | • 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 1982  
• 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  
| **Viral hepatitis symptoms** | 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:** 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. | 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:** 14 to 180 days, average 45 days  
Chronic infection occurs in 75–85% of infected persons  
Chronic liver disease: 70% of chronically infected persons. 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 if you are infected?** | • Hepatitis A: Incubation period: 2 weeks, average 5 days  
• Symptoms: fatigue, loss of appetite, nausea, diarrhea, abdominal pain, fever, joint pain.  
• There is no specific treatment, but patients can expect to recover after 2 to 6 weeks.  
• Chronic hepatitis A occurs in about 15% of cases.  
• People with chronic hepatitis A infection have a much higher risk of liver failure (cirrhosis) and liver cancer. | • Hepatitis C: Incubation period: 14 to 180 days, average 45 days  
Chronic infection occurs in 75–85% of infected persons  
Chronic liver disease: 70% of chronically infected persons. 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?** | • 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 patients 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 years or 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.  
• 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 use 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.  
• Don’t share personal care items that might have blood on them, such as razors, toothbrushes, and washcloths.  
• 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 use 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. | 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. |

Disease rates are available from your state or local health department.
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 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
  - kidney disease
  - diabetes mellitus
  - liver disease
  - alcoholism
- 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
  - leukemia
  - lymphoma
  - had my spleen removed
  - on medication or receiving x-ray treatment that affects my immune system
  - HIV/AIDS
  - multiple myeloma
  - generalized malignancy
  - organ or bone marrow transplant
- I am a health care worker.
- I provide essential community services.
- I have no idea if I ever received pneumococcal vaccine 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.

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 that I last had pneumococcal vaccine: _______________________

- 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.
**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 liver disease.

**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 | Atenuvax | 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) | AcHIB | 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-immune | Wyeth Lederle | Inactivated | single-dose syringe and 5-dose vial
Pneumococcal polysaccharide, 23-valent | PNEUMOVAX 23 | Merck | Inactivated | single-dose 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 | VivIt 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

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aventis Pasteur, Inc.</td>
<td>(800) 822-2463</td>
</tr>
<tr>
<td>Berna Products Corp.</td>
<td>(800) 533-5899</td>
</tr>
<tr>
<td>BioPort Corp.</td>
<td>(517) 327-1500</td>
</tr>
<tr>
<td>Chiron Corp.</td>
<td>(800) 244-7688</td>
</tr>
<tr>
<td>Evans Vaccines</td>
<td>(800) 200-4278</td>
</tr>
<tr>
<td>GlaxoSmithKline</td>
<td>(888) 825-5249</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>(800) 672-6372</td>
</tr>
<tr>
<td>Wyeth Lederle Vaccines</td>
<td>(800) 358-7443</td>
</tr>
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</table>

**Item # P2019 (11/01)**
# How’s your state doing?

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

<table>
<thead>
<tr>
<th>State</th>
<th>% adults ≥65 who had influenza vaccine in past year*</th>
<th>% adults ≥65 who had pneumococcal vaccine during lifetime*</th>
<th>% of children with 4:3:1:3:3 series complete†</th>
<th>% of children with ≥3 doses of hepatitis B vaccine†</th>
<th>% of children given ≥1 dose of varicella vaccine†</th>
<th>Hepatitis B childhood vaccination mandates, with year implemented**</th>
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§ 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

*Needle Tips* • Fall/Winter 2001–2002 (printed 11/01) • 1573 Selby Avenue, St. Paul, MN 55104 • (651) 647-9009 • www.immunize.org
### Summary of Recommendations for Adult Immunization

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

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>For whom it is recommended</th>
<th>Schedule for routine and “catch-up” administration</th>
<th>Contraindications (mild illness is not a contraindication)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza</strong>&lt;br&gt;Give IM</td>
<td>• Adults who are 50yrs of age or older.&lt;br&gt;• 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.&lt;br&gt;• People (≥6m of age) working or living with at-risk people.&lt;br&gt;• Pregnant women who have underlying medical conditions should be vaccinated before influenza season, regardless of the stage of pregnancy.&lt;br&gt;• Healthy pregnant women who will be in their 2nd or 3rd trimesters during influenza season.&lt;br&gt;• All health care workers and those who provide key community services.&lt;br&gt;• 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).&lt;br&gt;• Anyone who wishes to reduce the likelihood of becoming ill with influenza.</td>
<td>• Given every year.&lt;br&gt;• October through November is the optimal time to receive an annual flu shot to maximize protection.&lt;br&gt;• 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.&lt;br&gt;• May give with all other vaccines but as a separate injection.</td>
<td>• Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.&lt;br&gt;• Moderate or severe acute illness. <strong>Note:</strong> Pregnancy and breastfeeding are not contraindications to the use of this vaccine.</td>
</tr>
</tbody>
</table>

| **Pneumococcal polysaccharide (PPV23)**<br>Give IM or SC | • Adults who are 65yrs of age or older.<br>• 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 anaoptic 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.<br>• 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.<br>• May give with all other vaccines but as a separate injection. | • Previous anaphylactic reaction to this vaccine or to any of its components.<br>• Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine. |

| **Hepatitis B (Hep-B)**<br>Give IM | • All adolescents.<br>• 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.<br>• Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m.<br>• 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.<br>• 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.<br>• May give with all other vaccines but as a separate injection. | • Previous anaphylactic reaction to this vaccine or to any of its components.<br>• Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine. |

| **Hepatitis A (Hep-A)**<br>Give IM | • People who travel outside of the U.S. (except for Western Europe, New Zealand, Australia, Canada, and Japan).<br>• 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. | 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.<br>• Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications 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.*

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**For Twinrix™ (hepatitis A and B combination vaccine [GSK]) three doses are needed on a 0, 1, 6m schedule.**

For the full ACIP statement, visit the CDC website: www.cdc.gov/vaccines/acip-recs/sr-rv.html. **Note:** twins will not achieve their full height.

**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.*

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*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*
## Summary of Recommendations for Adult Immunization - side 2

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>For whom it is recommended</th>
<th>Schedule for routine and “catch-up” administration</th>
<th>Contraindications (mild illness is not a contraindication)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Td</strong> (Tetanus, diphtheria) Give IM</td>
<td>• 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.</td>
<td>• 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.</td>
<td>• 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.</td>
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<tr>
<td><strong>MMR</strong> (Measles, mumps, rubella) Give SC</td>
<td>• 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.</td>
<td>• 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.</td>
<td>• 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.</td>
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<tr>
<td><strong>Varicella</strong> (Var) (Chickenpox) Give SC</td>
<td>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.</td>
<td>• 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.</td>
<td>• 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.</td>
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<tr>
<td><strong>Polio</strong> (IPV) Give IM or SC</td>
<td>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.</td>
<td>• Refer to ACIP recommendations regarding unique situations, schedules, and dosing information. • May be given with all other vaccines as a separate injection.</td>
<td>• Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. • Pregnancy. • Moderate or severe acute illness. Note: Pregnancy and breastfeeding are not contraindications to the use of this vaccine.</td>
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<tr>
<td><strong>Lyme disease</strong> Give IM</td>
<td>• 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.</td>
<td>• 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.</td>
<td>• 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.</td>
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<td>Mening.</td>
<td>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.</td>
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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.

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.

The routine schedule for pneumococcal conjugate vaccine is 4 doses, one dose at each of these ages:
- 2 months
- 6 months
- 4 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.

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.
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.

What if there is a moderate or severe reaction?

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.

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.

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

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 Information Statement
Pneumococcal Conjugate Vaccine (7/9/01) 42 U.S.C. § 300aa-26
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 TrHIBit (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?

TrHIBit 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 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 pneumococci 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 vacci-
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.

**Ask the Experts . . . continued from page 18**

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 vaccine 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 HBlg 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-HBs testing.

(continued on page 20)
HBsAg 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.

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<tr>
<th>Tests</th>
<th>Results</th>
<th>Interpretation</th>
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</tr>
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<td>HBsAg</td>
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<tr>
<td>anti-HBc</td>
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</table>

*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- month schedule. Choice of schedule should be used to facilitate the highest rate of vaccine 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:
1. Health care workers who are at risk of exposure to blood or body fluids in the workplace
2. Infants born to HBsAg-positive mothers
3. Immunocompromised persons, e.g., dialysis patients, AIDS patients
4. 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.

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. However, HBsAg testing needs to be performed if anti-HBs declines below 10 mIU/mL. A booster dose of hepatitis B vaccine should be given and 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 (<10 mIU/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.

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 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.

Ask the Experts . . . continued from page 20

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.

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### Organizations with immunization and hepatitis information

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<td>All Kids Count</td>
<td>(404) 687-5615</td>
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<td>American Academy of Pediatrics</td>
<td>(800) 433-9016</td>
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<td>Association of Teachers of Preventive Medicine</td>
<td>(800) 789-6737</td>
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<td>CDC’s Immunization Information Hotline</td>
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<td>CDC’s Voice &amp; Fax Immunization Resource Request Line</td>
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<td>CDC’s Travel Website &amp; Info Line</td>
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<td>Every Child by Two (<a href="http://www.ecbt.org">www.ecbt.org</a>)</td>
<td>(202) 783-7034</td>
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<td>Immunization Action Coalition</td>
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<td>Institute for Vaccine Safety</td>
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<tr>
<td></td>
<td>Nat’l Alliance for Hispanic Health</td>
<td>(202) 387-5000</td>
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<td>Nat’l Coalition for Adult Immunization</td>
<td>(301) 656-0003</td>
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<td>Nat’l Network for Immunization Information (<a href="http://www.immunizationinfo.org">www.immunizationinfo.org</a>)</td>
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<td>Nat’l Partnership for Immunization (<a href="http://www.partnersforimmunization.org">www.partnersforimmunization.org</a>)</td>
<td>(301) 656-0003</td>
</tr>
<tr>
<td></td>
<td>Nat’l Vaccine Injury Compensation Program</td>
<td>(800) 338-2382</td>
</tr>
<tr>
<td></td>
<td>100% Immunization Campaign</td>
<td>(703) 739-1300</td>
</tr>
<tr>
<td></td>
<td>Vaccine Adverse Events Reporting System</td>
<td>(800) 822-7967</td>
</tr>
<tr>
<td></td>
<td>Vaccine Education Center</td>
<td>(215) 590-9990</td>
</tr>
<tr>
<td></td>
<td>Your health department’s immunization program manager</td>
<td>(see page 23)</td>
</tr>
<tr>
<td><strong>Hepatitis Information</strong></td>
<td>American Liver Foundation</td>
<td>(800) 223-0179</td>
</tr>
<tr>
<td></td>
<td>CDC’s Hepatitis Information Line</td>
<td>(888) 443-7232</td>
</tr>
<tr>
<td></td>
<td>CDC’s Hepatitis Division of Viral Hepatitis website</td>
<td><a href="http://www.cdc.gov/hepatitis">www.cdc.gov/hepatitis</a></td>
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<tr>
<td></td>
<td>CDC’s National STD/AIDS Hotline</td>
<td>(800) 227-8922</td>
</tr>
<tr>
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<td>Hepatitis B Coalition (<a href="http://www.immunize.org">www.immunize.org</a>)</td>
<td>(651) 647-9009</td>
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<td>Hepatitis B Foundation (<a href="http://www.hepb.org">www.hepb.org</a>)</td>
<td>(215) 489-4900</td>
</tr>
<tr>
<td></td>
<td>Hepatitis B Online Support Group</td>
<td>send a blank e-mail to: <a href="mailto:hepatitis-b-on@mail-list.com">hepatitis-b-on@mail-list.com</a></td>
</tr>
<tr>
<td></td>
<td>Hepatitis Control Report</td>
<td>(610) 647-2793</td>
</tr>
<tr>
<td></td>
<td>Hepatitis Foundation International (<a href="http://www.hepfi.org">www.hepfi.org</a>)</td>
<td>(800) 891-0707</td>
</tr>
<tr>
<td></td>
<td>Nat’l Hepatitis B Task Force: Focus on API (<a href="http://www.aaphp.com/hepbtf">www.aaphp.com/hepbtf</a>)</td>
<td>(614) 766-5219</td>
</tr>
<tr>
<td></td>
<td>Parents of Kids with Infectious Diseases (<a href="http://www.pkids.org">www.pkids.org</a>)</td>
<td>(877) 557-5437</td>
</tr>
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<td></td>
<td>PEPLine: 24-hr hotline to advise clinicians re: occupational blood exposures</td>
<td>(888) 448-4911</td>
</tr>
<tr>
<td></td>
<td>Your health department’s hepatitis coordinator</td>
<td>(see page 23)</td>
</tr>
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</table>

### Pharmaceutical Companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aventis Pasteur, Inc.</td>
<td>(800) 822-2463</td>
</tr>
<tr>
<td>Bayer Biologicals</td>
<td>(800) 468-0894</td>
</tr>
<tr>
<td>Chiron Corporation</td>
<td>(800) 244-7668</td>
</tr>
<tr>
<td>GlaxoSmithKline</td>
<td>(888) 825-5249</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>(800) 672-6372</td>
</tr>
<tr>
<td>Nabi</td>
<td>(800) 458-4244</td>
</tr>
<tr>
<td>Wyeth Lederle Vaccines</td>
<td>(800) 358-7443</td>
</tr>
</tbody>
</table>

* 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 rates or develop immunization tracking systems.

State and Project Coordinators

**Alaska**
- Hep B: Maribel Chavez-Torres 312-746-6050
- VFC: Juanita Mitchell 312-442-2370

**Arizona**
- Hep B: Karen McMahon 217-785-1455
- VFC: Bob Salisbury 208-334-4949

**Arkansas**
- Hep B: Sherry Ahring 501-255-7019
- VFC: Ruby Jones 501-255-7019

**California**
- Hep B: Susan Williams 217-785-7756
- VFC: Barbara Giudici 609-785-7756

**Connecticut**
- Hep B: Amy Warner 303-692-2673
- VFC: Martin Luta 302-739-4746

**Colorado**
- Hep B: Melissa Delgado 212-676-3269
- VFC: Tracy Miller 501-255-7756

**District of Columbia**
- Hep B: Barbara Giudici 609-785-7756
- VFC: Martin Luta 302-739-7019

**Delaware**
- Hep B: Faith Lister 208-342-4914
- VFC: DeWanda Eaton 208-342-7130

**Florida**
- Hep B: Ethel Holland 202-442-9141
- VFC: Diane Beecham 202-442-9141

**Georgia**
- Hep B: Stephanie Frank 612-676-5237
- VFC: Barbara Ottis 612-676-5237

**Hawaii**
- Hep B: Karen McMahon 217-785-1455
- VFC: Mark Amerson 217-785-1455

**Idaho**
- Hep B: Molly Oden 402-471-0301
- VFC: Maribel Chavez-Torres 312-746-6050

**Illinois**
- Hep B: Ken Doming 907-269-8000
- VFC: Betty Finch 602-230-5832

**Indiana**
- Hep B: Michael Runau 313-876-4601
- VFC: Stella Bayless 313-876-4335

**Iowa**
- Hep B: Carolyn Jacobson 515-281-4938
- VFC: Tom Callahan 515-281-3701

**Kansas**
- Hep B: Victor Negron 502-564-4478
- VFC: Gena Gilbert 502-564-4478

**Louisiana**
- Hep B: Robert Tapia 504-483-1900
- VFC: Patricia Simon 504-483-1900

**Maine**
- Hep B: Lisa Tuttle 207-287-5716
- VFC: Patrick Flanagan 212-320-4556

**Maryland**
- Hep B: Gregory Reed 410-767-6679
- VFC: Ed Heshorin 410-767-6679

**Massachusetts**
- Hep B: Maryann Harder 410-767-5716
- VFC: Ed Heshorin 410-767-6679

**Michigan**
- Hep B: Gena Gilbert 502-564-4478
- VFC: Paula Walea 210-207-8087

**Minnesota**
- Hep B: Jennifer Hill 785-296-8156
- VFC: Terry Adams 317-233-7704

**Mississippi**
- Hep B: Jeffrey Booth 601-576-7751
- VFC: Regina Irvin 601-576-7751

**Missouri**
- Hep B: Sam Barlow 775-684-5939
- VFC: Linda Platzz, RN 775-684-5913

**Montana**
- Hep B: Rupert McPherson 800-699-2313
- VFC: Ruby McPherson 800-699-2313

**Nebraska**
- Hep B: Robert Salcido 775-684-5939
- VFC: Linda Platzz, RN 775-684-5913

**New Hampshire**
- Hep B: Charles Haenel 603-271-4482
- VFC: Susan Bascom 603-271-8325

**New Jersey**
- Hep B: Thomas Saucenstop 502-827-2507
- VFC: Carly Christian 502-827-2898

**New Mexico**
- Hep B: Melissa Moore 505-827-2463
- VFC: Warren Leach 404-444-0277

**New York**
- Hep B: David Chaney 502-827-2463
- VFC: Wendy Higginbotham 502-827-2463

**NY, NYC**
- Hep B: Enesia Delgato 212-676-2259
- VFC: Desiree Satre 212-676-2259

**North Carolina**
- Hep B: David Atkinson 715-917-6768
- VFC: Patricia Poole 715-917-6767

**North Dakota**
- Hep B: Barbara Frohlich 701-328-2035
- VFC: Tracy Miller 501-255-7756

**Ohio**
- Hep B: Leonard Payton 614-466-4643
- VFC: Keith Haines-Wolf 360-236-3591

**Oklahoma**
- Hep B: Gary Rentfro 313-876-4601
- VFC: David Beecham 313-876-4335

**Oregon**
- Hep B: Blanche Wims 503-577-7756
- VFC: Marcia Hagan 503-577-7756

**Pennsylvania**
- Hep B: Paul Moffat 207-287-8150
- VFC: Lisa Tuttle 207-287-5716

**South Dakota**
- Hep B: David Atkinson 715-917-6768
- VFC: Patricia Poole 715-917-6767

**South Carolina**
- Hep B: Michelle Hudecek 605-773-5323
- VFC: Michelle Hudecek 605-773-5323

**Texas**
- Hep B: Rita Espinoza 512-458-7284
- VFC: Vivian Flores 210-207-2688

**Utah**
- Hep B: Mary Abel 505-248-4826
- VFC: Janet Kilpack 505-248-4826
Coalition Catalog
Publications and resources

- 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
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); Cu, 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


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
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 #P4150


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


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

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


★ 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


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

Ordering Information

- All of our materials are camera-ready, copyright-free, and reviewed by national experts!
- You can order just one of any item, including videos, and make as many copies as you need.
- 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.
- Delivery in 3 weeks or less.

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.

Robin, did you send our membership contribution to the Immunization Action Coalition?

Holy Skyscrapers, Batman, yes! Why do you think you have that huge pack of print materials on your desk?
**Coalition Order Form**

**Payment, Shipping, and Handling Information**

Minimum order/donation is $10. Please pay by check or credit card. Purchase orders accepted. Checks in U.S. dollars only. Order form must accompany check or P.O. Minimum order/donation is $10. Please prepay by check or credit card. Purchase or

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**NEEDLE TIPS**

___ P4151 Confused about the hep B panel ..................................................... $1

___ P4118 You are not alone: teens with hepatitis B ....................................... $1

___ P4116 You don’t have to go all the way to get hepatitis A ........................ $1

___ P4115 Hepatitis B . . . 100 times easier to catch than HIV

___ P4075 Hep A, B, C: Learn the differences ................................................... $ ______

___ P4070 Chickenpox isn’t just a rash:

___ P4055 All kids need hepatitis B shots! $1

___ P4050 When children and teens need vaccinations? $1

___ P4051 Immunizations for babies: $1

___ P4041 Shots for adults with HIV $1

___ P4042 Vaccinations for adults with hepatitis C

___ P4040 Vaccinations for adults with hepatitis C

___ P4040 When do children and teens need vaccinations? $1

___ P4005 All kids need hepatitis B shots! $1

___ R2065 Directory of National Immunization Resources ............................. $10

___ R2053 Photo notebook of vaccine-preventable diseases ......................... $75

___ R2000 IAC mousepad ................................................................................ $3

___ R2052 Change the Legacy: Catching Up with Hepatitis B ...................... $10

___ Q2010 "Roll up your sleeves!" teen hep B poster ................................. $10

___ V2010 How to Protect Your Vaccine Supply ........................................... $10

___ Q2010 I want to receive whatever translations you have in: English

___ Q2010 I want to join the Immunization Action Coalition!

___ Q2010 I am a new member

___ Q2010 I am a renewing member

___ Q2010 Here is my membership contribution

___ Q2010 Here is my membership contribution

___ Q2010 I also would $1

___ Q2010 I am a new member

___ Q2010 I am a renewing member

___ Q2010 Here is my membership contribution

___ Q2010 I also would $1

___ Q2010 I am a new member

___ Q2010 I am a renewing member

___ Q2010 Here is my membership contribution

___ Q2010 I also would $1

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**Materials for Your Patients**

___ P4010 Immunizations for babies: $1

___ P4105 After the shots: What to do if your child has discomfort

___ P4020 Are you 11-19? You need to be vaccinated $1

___ P4025 Questions parents ask about baby shots $1

___ P4030 Vaccinations for adults $1

___ P4035 Immunizations . . . not just kids’ stuff! $1

___ P4036 Do I need any vaccinations today? $1

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**Language Selection**

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<tr>
<th>Languages</th>
<th>Ab: Arabic</th>
<th>En: English</th>
<th>Sp: Spanish</th>
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<td>Mi: Mien</td>
<td>So: Somali</td>
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<td>Hm: Hmong</td>
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<td>Ja: Japanese</td>
<td>Ru: Russian</td>
<td>Ti: Tigrinya</td>
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<td>Ka: Korean</td>
<td>Sa: Samoan</td>
<td>Tu: Turkish</td>
</tr>
<tr>
<td>Co: Indonesian</td>
<td>La: Laotian</td>
<td>Vi: Vietnamese</td>
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</tbody>
</table>

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**Materials for Your Clinics**

___ R2010 Summary of recommendations for adult immunization

___ R2010 Screening questionnaire for child and teen immunization

___ R2065 Screening questionnaire for adult immunization

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**Videos**

___ V2010 How to Protect Your Vaccine Supply ........................................... $10

---

**Please Join the Coalition!**

This is the total amount for the materials I’m ordering ................. $ 

Here’s my extra contribution to help defray costs of NEEDLE TIPS $ 

I want to join the Immunization Action Coalition!

I am a new member

I am a renewing member

Here is my membership contribution

$60 $40 $75 $100 other $ 

I’m joining the Coalition at a $60 level or higher, so please send me all of your print materials in English. I also would like to receive whatever translations you have in:

- Sp
- Ab
- Am
- Ar
- Ca
- Ch
- Fa
- Hm
- j
- Ko
- La
- Po
- Ro
- Ru
- Sa
- So
- Ta
- Ti
- Tu
- Vi

---

**Method of payment:**

- Check enclosed
- Purchase order # 

Exp. date 

Visa

Mastercard

Am. Express

Discover

Card #
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
Executive Director

Join the Coalition!

☐ Here’s my membership contribution to the Immunization Action Coalition!

Name/Title: ________________________________________________________________

Organization: ____________________________________________________________

Address: ________________________________________________________________

City/State/Zip: ____________________________________________________________

Phone and E-mail: _________________________________________________________

☐ $60 ☐ $40 ☐ $75 ☐ $100 ☐ $250 ☐ other

☐ I’m joining at a $60 or higher level so please send me your print materials in:

☐ Eng ☐ Spa ☐ Amha ☐ Arabic ☐ Armen ☐ Camb ☐ Chin ☐ Farsi ☐ Hmong ☐ Jap ☐ Korean

☐ Lao ☐ Portug ☐ Rom ☐ Russ ☐ Samoa ☐ Somal ☐ Taga ☐ Tigri ☐ Turk ☐ Viet ☐ All languages

Method of payment: 

☐ Visa ☐ Mastercard ☐ Am. Express ☐ Discover ☐ Exp. Date ____________

☐ Check enclosed ☐ Credit card

☐ P.O. # ______________

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.

Immunization Action Coalition
NEEDLE TIPS and the Hepatitis B Coalition News
1573 Selby Avenue, Suite 234
Saint Paul, MN 55104

Deborah L. Wexler, MD
Executive Director