Ask the Experts

Editors’ note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH, Linda A. Moyer, RN, and Harold S. Margolis, MD, of the Centers for Disease Control and Prevention for answering the following questions for our readers. Dr. Atkinson, medical epidemiologist at the National Immunization Program, and Dr. Margolis, chief of the Hepatitis Branch, are CDC liaisons to the Coalition. Ms. Moyer is an epidemiologist at the Hepatitis Branch.

General vaccine questions

by William L. Atkinson, MD, MPH

Why do ACIP recommendations not always agree with package inserts?
There is usually very close agreement between vaccine package inserts and ACIP statements. The Food and Drug Administration (FDA) must approve the package insert, and requires documentation for all claims and recommendations made in the insert. Occasionally, ACIP may use different data to formulate its recommendations, or try to add flexibility to its recommendations, which results in wording different than on the insert.

Immunization questions?
• Call your state health department
• E-mail: nipinfo@cdc.gov
• Call CDC’s Immunization Information Hotline at 800-232-2522

What vaccines should be given to adults who have had bone marrow transplants?
ACIP is currently formulating recommendations for the vaccination of persons receiving bone marrow and other hematopoietic cell transplants. While not final, it appears that ACIP will recommend re-vaccination with most vaccines after transplant. Re-vaccination with inactivated vaccines (Td, hepatitis B, IPV, Hib, pneumococcal, and influenza) will probably be recommended at 12 months post-transplant. MMR will probably be recommended at 24 months or more post-transplant, but only for persons who are determined not to be immunosuppressed and not experiencing graft-versus-host disease. More definitive information will be available later this year after the guidelines are finalized.

After a blood transfusion, which vaccines are contraindicated and for how long?
Measles, mumps, and rubella vaccines should not be given for at least 6 months following a transfusion of whole blood. A table in the 1998 MMR ACIP statement (MMWR 1998;47[RR-8]) lists the recommended delay following other antibody-containing blood products. Varicella vaccine

Wait a minute! I'm not 65 yet! Why are you giving me a pneumococcal shot?

Grandpa! People under 65 with chronic cardiovascular, pulmonary, or liver disease, diabetes, alcoholism, cerebrospinal fluid leaks, functional or anatomic asplenia, and people who are immunocompromised need to be vaccinated against pneumococcal disease! And they’ll also need to get a second dose at a later date.

What's Inside?
U.S. Surgeon General’s warning ......................... 2
Letters to the editor ............................................. 3
Pneumococcal deaths ignite campaign .................. 5
If you have sex, read this ...................................... 6
Adult immunization resources and order form ...... 11
Join the Coalition! ................................................. 12

Sign up for IAC EXPRESS!
To subscribe, send an e-mail request to express@immunize.org and place the word SU BSC RIBE in the "Subject:" field. You will receive timely immunization and hepatitis news from us via e-mail.
VACCINATE ADULTS!

from the publishers of NEEDLE TIPS
Immunization Action Coalition
Hepatitis B Coalition
1573 Selby Avenue, Suite 234
St. Paul, MN 55104
phone: 651-647-9009
day: 651-647-9131
e-mail: admin@immunize.org
e-mail: medinfo@immunize.org
website: www.immunize.org

To All Immunization Action Coalition Members:

While childhood immunization rates in the United States are at an all-time high—with the most critical vaccine doses reflecting coverage rates of over 90 percent—the news is not as good among older adults, who are at increased risk for many vaccine-preventable diseases. Each year an estimated 45,000 adults die of infections related to influenza, pneumococcal disease, and hepatitis B despite the availability of safe and effective vaccines to prevent these conditions and their complications.

Approximately 90 percent of all influenza-associated deaths in the United States occur in people aged 65 years and older, the fastest growing age group of the population. Reduction of deaths in this age group has been hindered in part by relatively low vaccine utilization.

To All Immunization Action Coalition Members:

There is a disproportionate burden of these diseases in minority and underserved populations.

There is a disproportionate burden of these diseases in minority and underserved populations. Although vaccination levels against pneumococcal infections and influenza among people aged 65 years and older have increased slightly for Blacks and Hispanics, the coverage in both these groups remains substantially below the overall population.

People aged 65 years and older who reported receiving vaccines (by race/ethnicity)

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>White, non-Hispanic</th>
<th>Black, non-Hispanic</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccine</td>
<td>67.2%</td>
<td>50.2%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>47.3%</td>
<td>29.7%</td>
<td>34.1%</td>
</tr>
</tbody>
</table>


Join the Coalition!

I encourage you to vaccinate adults of all races and ethnic backgrounds.

As health professionals, you are on the front line in this effort, and play a critical part in achieving this goal. I encourage you to vaccinate adults of all races and ethnic backgrounds against the above-mentioned diseases. You should also be sure to vaccinate high-risk adults against hepatitis B virus infection, and make sure that all your adult patients are up to date on their Td vaccinations.

The reduction in incidence of vaccine-preventable diseases is one of the most significant public health achievements of the past 100 years. The major factor in this success is the development and widespread use of vaccines, which are among the safest and most effective preventive measures.

The reduction in incidence of vaccine-preventable diseases is one of the most significant public health achievements of the past 100 years.

Immunization is one of the most cost-effective strategies to prevent needless morbidity and mortality. In addition, the overall cost to society for vaccine-preventable diseases exceeds $10 billion each year.

With your help and your dedication, we can continue to build upon the impressive health achievements that vaccines already have made possible. Thank you for your efforts.

David Satcher, MD, PhD
Assistant Secretary for Health and U.S. Surgeon General

45,000 adults die each year in the U.S. from influenza, pneumococcal, and hepatitis B disease.
Don’t Hesitate, Vaccinate!

In the early 1980s, I was diagnosed with hepatitis B. It has never been determined where or how I contracted the virus. It may have been during a Congressional fact-finding trip to China at that time. That is one of the very frightening facts about hepatitis B. While risk factors have been identified that are associated with viral transmission, up to 40 percent of the cases of hepatitis B in adults have no known risk factors associated with them.

By 1995, I was told by my doctors that I had about two months to live. In my case, the hepatitis B virus had led to cirrhosis of the liver and this vital organ had deteriorated beyond function. I was terribly ill. I had no strength and I had become severely jaundiced. But I was lucky; a liver transplant saved my life. Today I am happy, healthy and so grateful that I have been able to celebrate 25 years in the United States Congress.

Unfortunately, more than one and a quarter million Americans have hepatitis B, and up to 6,000 Americans die every year from the complications associated with the hepatitis B virus. All of the horrors that I endured could have been avoided if I had had available to me the very safe and effective vaccine against hepatitis B that now exists. The three-shot series over a period of four to six months can protect most people from the agony of this disease.

I urge everyone to check with their providers about immunization against hepatitis B for themselves and for those they love.

There is no reason for anyone to suffer from this totally preventable disease.

—Joe Moakley
Member of United States Congress
House of Representatives
9th District, Massachusetts

First, Do No Harm

All of us who are health care providers have special responsibilities to our patients that begin with the timeless Hippocratic admonition: “First, do no harm.” I am sure that we all believe this in our hearts and minds. But I was lucky; a liver transplant saved my life. Today I am happy, healthy and so grateful that I have been able to celebrate 25 years in the United States Congress.

Unfortunately, more than one and a quarter million Americans have hepatitis B, and up to 6,000 Americans die every year from the complications associated with the hepatitis B virus. All of the horrors that I endured could have been avoided if I had had available to me the very safe and effective vaccine against hepatitis B that now exists. The three-shot series over a period of four to six months can protect most people from the agony of this disease.

I urge everyone to check with their providers about immunization against hepatitis B for themselves and for those they love.

There is no reason for anyone to suffer from this totally preventable disease.

—William Schaffner, MD
Professor and Chair
Department of Preventive Medicine
Vanderbilt University School of Medicine

Vaccine highlights

Latest recommendations and schedules

The next ACIP meetings...

Editors’ note: The information on this page is current as of March 17, 1999.

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 on June 16–17, 1999, and Oct. 20–21, 1999.

ACIP statement information

ACIP statements. No clinic should be without a set of these public health recommendations on vaccines which are published in the MMWR. Continuing education credits (CMEs, CEUs, CNEs) are available for reading and completing the brief tests found in the 1999 ACIP statements.

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

• Download individual statements from CDC’s website: www.cdc.gov/epo/mmwr/mmwr.html (You also can request a free electronic subscription to MMWR at this site.)
• E-mail your request to nipinfo@cdc.gov
• Call CDC’s Immunization Information Hotline: 800-232-2522.
• Call your state’s immunization program.
• Request them from your medical library.
• Call 781-893-3800 to subscribe to the MMWR.

The most recently published ACIP statements are as follows:

• Human Rabies Prevention – U.S. (1/8/99)
• Measles, Mumps, and Rubella – Vaccine Use and Strategies for Elimination of Measles, Rubella, and Congenital Rubella Syndrome and Control of Mumps (5/22/98)
• Prevention and Control of Influenza (5/1/98)

Lyme disease vaccine news

On Feb. 18, 1999, the ACIP voted to approve “Prevention of Lyme Disease through Active Vaccination,” the ACIP statement on Lyme disease. The statement will include ACIP recommendations on whom to vaccinate. The expected publication date is spring or summer 1999.

On Dec. 21, 1998, the FDA licensed LYMErix, a new Lyme disease vaccine manufactured by SmithKline Beecham. The vaccine is licensed for use in persons ages 15–70 years. It is given IM on a 0-, 1-, 12-month schedule.

Rabies news


VISs (vax info statements)

On Feb. 23, 1999, CDC published “Instructions for Use of Vaccine Information Materials (Vaccine Information Statements).” In these instructions CDC states that all health care providers in the U.S. who administer any vaccine containing diphtheria, tetanus, pertussis, measles, mumps, rubella, polio, hepatitis B, Haemophilus influenzae type b (Hib), or varicella (chickenpox) vaccine shall, prior to administration of each dose of the vaccine, provide a copy of the relevant vaccine information materials (also known as VISs) to the patient.

In Feb. 1999, CDC released five new Vaccine Information Statements (VISs) – varicella, MMR, Hib, hepatitis B, and polio.

You must give your patients the most current versions of the VISs (the date appears at the bottom of eachVIS). Note: VISs dated Dec. 16, 1998, must be in place no later than June 1, 1999, and the interim polio VIS, dated Feb. 1, 1999, must be used as soon as practicable. Following is a table of the most current VISs and the date that is at the bottom of each one. Use the current ones and throw away (recycle) your old ones.

Current VISs

DTaP/DT/DTaP ........ 8/15/97 MMR ............ 12/16/98
Td ....................... 6/10/94 varicella ........... 12/16/98
polio .................... 2/1/99 Hib .................... 12/16/98
hepatitis A .......... 8/25/98 hepatitis B .... 12/16/98
pneumococcal ...... 7/29/97 influenza ............ 7/1/98

VISs and the instructions on how to use them can be obtained from your state health department. The VISs and the new VIS instruction sheet are also on IAC’s website at: www.immunize.org/vis/

Why does a duck need some money come out of the water?

To make a run on the bank.

Vaccine Administration Quiz

Will you get an A+?

(True or False)

1. Subcutaneous injections are generally given perpendicular to the skin.
2. No vaccine should be injected unless epinephrine is immediately available.
3. The recommended needle size for an adult IM injection is 1-1½ inches.
4. Never recap or clip needles prior to disposal.
5. If both hepatitis A and B vaccines are indicated, it is okay to combine them in one syringe.
6. MMR and varicella vaccines are given subcutaneously.
7. A new needle and syringe must be used for each vaccination.
8. For SQ and IM injections, after you insert the needle into the limb, you should always pull back on the plunger before you inject the vaccine.
9. Intramuscular injections should be inserted at a 90° angle to the skin.

Test Answers:

6-T; 7-F; 8-T; 9-T; 1-F; 2-T; 3-F; 4-T; 5-F.

Did you get an A+?

If you missed any of these, you can find the answers in previous issues of “Ask the Experts” or ACIP statements.
VACCINATE ADULTS! • Spring/Summer 1999 (3/99) • 1573 Selby Avenue, St. Paul, MN 55104 • 651-647-9009 • www.immunize.org
If you have sex, read this ...  

And stop a killer STD from sneaking up on you!

This article, written by Lynda Liu, is reprinted from Mademoiselle, February 1999

Just a few months after she graduated from college, 22-year-old Wendy Marx began to feel so bone-tired that she could barely make it to her brand-new job as an office manager at a San Francisco marketing firm. She ate little or no food and became nauseated when she did force down a meal. Still, it wasn't until a coworker pointed out that her eyes were slightly yellowish that she finally saw a doctor. Blood tests revealed that she had hepatitis B, a potentially deadly liver infection.

Wendy was admitted to the hospital, but the virus was already out of control, attacking and killing her liver cells. As a last-ditch effort, doctors tried an experimental drug: it failed. Toxins in her bloodstream - which a normally functioning liver would filter out - caused her brain to swell, and four weeks after she was diagnosed, Wendy slipped into a coma. No one was even sure how she'd gotten sick.

Silent but Deadly
You may not think of hepatitis B as a sexually transmitted disease (STD), but it's 100 times more contagious than HIV, and about one in every 20 Americans will be infected at some point in their life. In most adults, the immune system springs into action at the first contact with the virus, killing it before it does any serious damage to the liver, and spurring the body to manufacture antibodies to ward off the disease in the future.

But in 5 to 10 percent of the people infected - more than a million Americans - the disease takes hold despite the immune system's best efforts. Those people, called chronic carriers, have the disease for life and are more prone to cirrhosis, a life-threatening disease that scars the liver. They also have a 200-times greater chance of liver cancer than people without the disease. A small number of them develop, as Wendy did, acute fulminating hepatitis, an overwhelming vicious version of the infection that can lead to liver failure and death in a matter of weeks.

Hepatitis B is especially dangerous because chronic carriers are likely to have no recognizable symptoms - and so they may never suspect that they're spreading the disease. And, unfortunately, though medication can help control hepatitis B in some patients, there is no cure.

A Disease That Can Live on a Doorknob
Hepatitis B is classified as an STD because, among adults who get it, it's transmitted through unprotected sex, says Deborah Wexler, MD, executive director of the Immunization Action Coalition in St. Paul, MN. But Wendy Marx was positive that this hadn't been her mistake; nor did she use intravenous drugs or work at a job where she was exposed to blood - other common ways to catch the disease.

Scarily, the answer to Wendy's mystery may lie in the fact that hepatitis B can survive for up to a month outside the body, on surfaces such as doorknobs and tabletops (and, yes, toilet seats). The virus is transmitted through body fluids like semen, vaginal secretions and blood, so it's extremely unlikely that a toilet seat poses any danger, says Dr. Wexler. But, theoretically, you could contract the disease by touching a doorknob that harbored the virus and then rubbing your eye with your hand. (She emphasizes that it's a remote possibility.) The far more dangerous culprits are personal items like toothbrushes and razors, which might come in contact with infected blood. For the same reason, unsterilized manicure instruments, body-piercing equipment and tattoo and electrolysis needles could be potential carriers.

Protection by Injection
There's reassuring news, however: “Hepatitis B is entirely preventable,” says Henry C. Bodenheimer, Jr., MD, medical director of liver diseases at the Recanati Miller Transplantation Institute at Mt. Sinai Medical Center in New York. An effective vaccine can be given in three shots over six months. Some insurance companies will cover the cost, around $200. Dr. Wexler says that, for sexually active young women, the vaccine “is an excellent insurance policy” against hepatitis B. (But it doesn't mean saying so long to safe-sex practices, both she and Dr. Bodenheimer point out; plenty of other STDs are lurking.)

For Wendy Marx, it was far too late for a vaccine. Her failed liver had to be replaced by a transplant. And since hepatitis B can't be cured, the virus was still in her system, causing damage. Two years later, the transplanted liver failed, too. Wendy, now 31, was lucky - she got a second transplant and now her life seems relatively normal. “I work long hours,” she says. “I go to the gym. I have a boyfriend.” But she also lives with the possibility that the hepatitis could flare up yet again.

“You don't want to go through what I've been through,” she says. “It's a hell of a lot easier to get the three shots. My life would be entirely different if I had.”

Have you seen these symptoms?
The symptoms that appear when you're first infected with hepatitis B are actually a sign that your immune system is fighting off the disease, says Paul Martin, MD, director of hepatology (liver studies) at the UCLA School of Medicine. See your doctor if you experience any of the following:

- flu-like symptoms such as loss of appetite, nausea, vomiting and fever
- feeling tired or weak for weeks or even months
- pain in the area of the liver (the right side of your abdomen)
- dark, tea-colored urine
- jaundice (yellowing of the skin or eyes)

If you have sex, read this... And stop a killer STD from sneaking up on you! This article, written by Lynda Liu, is reprinted from Mademoiselle, February 1999.

Silent but Deadly
You may not think of hepatitis B as a sexually transmitted disease (STD), but it's 100 times more contagious than HIV, and about one in every 20 Americans will be infected at some point in their life. In most adults, the immune system springs into action at the first contact with the virus, killing it before it does any serious damage to the liver, and spurring the body to manufacture antibodies to ward off the disease in the future.

But in 5 to 10 percent of the people infected - more than a million Americans - the disease takes hold despite the immune system's best efforts. Those people, called chronic carriers, have the disease for life and are more prone to cirrhosis, a life-threatening disease that scars the liver. They also have a 200-times greater chance of liver cancer than people without the disease. A small number of them develop, as Wendy did, acute fulminating hepatitis, an overwhelming vicious version of the infection that can lead to liver failure and death in a matter of weeks.

Hepatitis B is especially dangerous because chronic carriers are likely to have no recognizable symptoms - and so they may never suspect that they're spreading the disease. And, unfortunately, though medication can help control hepatitis B in some patients, there is no cure.

A Disease That Can Live on a Doorknob
Hepatitis B is classified as an STD because, among adults who get it, it's transmitted through unprotected sex, says Deborah Wexler, MD, executive director of the Immunization Action Coalition in St. Paul, MN. But Wendy Marx was positive that this hadn't been her mistake; nor did she use intravenous drugs or work at a job where she was exposed to blood - other common ways to catch the disease.

Scarily, the answer to Wendy's mystery may lie in the fact that hepatitis B can survive for up to a month outside the body, on surfaces such as doorknobs and tabletops (and, yes, toilet seats). The virus is transmitted through body fluids like semen, vaginal secretions and blood, so it's extremely unlikely that a toilet seat poses any danger, says Dr. Wexler. But, theoretically, you could contract the disease by touching a doorknob that harbored the virus and then rubbing your eye with your hand. (She emphasizes that it's a remote possibility.) The far more dangerous culprits are personal items like toothbrushes and razors, which might come in contact with infected blood. For the same reason, unsterilized manicure instruments, body-piercing equipment and tattoo and electrolysis needles could be potential carriers.

Protection by Injection
There's reassuring news, however: “Hepatitis B is entirely preventable,” says Henry C. Bodenheimer, Jr., MD, medical director of liver diseases at the Recanati Miller Transplantation Institute at Mt. Sinai Medical Center in New York. An effective vaccine can be given in three shots over six months. Some insurance companies will cover the cost, around $200. Dr. Wexler says that, for sexually active young women, the vaccine “is an excellent insurance policy” against hepatitis B. (But it doesn't mean saying so long to safe-sex practices, both she and Dr. Bodenheimer point out; plenty of other STDs are lurking.)

For Wendy Marx, it was far too late for a vaccine. Her failed liver had to be replaced by a transplant. And since hepatitis B can't be cured, the virus was still in her system, causing damage. Two years later, the transplanted liver failed, too. Wendy, now 31, was lucky - she got a second transplant and now her life seems relatively normal. “I work long hours,” she says. “I go to the gym. I have a boyfriend.” But she also lives with the possibility that the hepatitis could flare up yet again.

“You don't want to go through what I've been through,” she says. “It's a hell of a lot easier to get the three shots. My life would be entirely different if I had.”

Have you seen these symptoms?
The symptoms that appear when you're first infected with hepatitis B are actually a sign that your immune system is fighting off the disease, says Paul Martin, MD, director of hepatology (liver studies) at the UCLA School of Medicine. See your doctor if you experience any of the following:

- flu-like symptoms such as loss of appetite, nausea, vomiting and fever
- feeling tired or weak for weeks or even months
- pain in the area of the liver (the right side of your abdomen)
- dark, tea-colored urine
- jaundice (yellowing of the skin or eyes)
Do you spend too much time fishing for practical vaccine information?

IAC EXPRESS delivers vaccine information directly to your e-mail box

- ACIP statements
- MMWR vaccine articles
- FDA: new vaccines, treatments
- CDC: hot topics, vaccine safety
- vaccine news in the mainstream media
- calendar of vaccine events
- stories of people with vaccine-preventable diseases

SIGN UP!
Send an e-mail message to express@immunize.org
Enter the word SUBSCRIBE in the "Subject:" field.
To see what's already been published, visit www.immunize.org/express/
by William L. Atkinson, MD, MPH

**Hib**

**Does anyone 5 years of age or older need to receive Hib vaccine?**

There are few data on the efficacy of Hib vaccine in persons 5 years of age or older. ACIP recommends consideration of Hib vaccination for unvaccinated persons 5 years of age and older with anatomic or functional asplenia, sickle-cell anemia, or HIV infection (MMWR 1993;42[RR-4]:8; MMWR 1991;40[RR-12]:29). A single dose of any licensed conjugate vaccine is probably sufficient in most cases (using the dose recommended by the manufacturer for a child). The 1997 AAP Red Book suggests 2 doses separated by 1–2 months for persons with HIV infection or IgG2 immune deficiency.

by William L. Atkinson, MD, MPH

**Varicella**

**Can varicella vaccine be used postexposure to prevent disease?**

Several studies have shown that administration of varicella vaccine within 72 hours, and possibly up to 5 days after exposure to varicella, may prevent or significantly reduce the severity of varicella. ACIP is currently developing a revised statement on varicella that will recommend vaccination of susceptible persons following exposure to varicella. Vaccine should be administered as soon as possible after exposure, preferably within 72 hours. Limited data indicate that vaccination 5 days or more after exposure is less likely to prevent or modify the disease, however, it will provide future protection if the exposed person has not been infected.

**Can a pregnant health care worker with a history of varicella infection care for a patient with varicella? Is it possible for her to have a declining titer, thus making her susceptible to the virus again?**

Persons with a reliable history of varicella can be considered to be immune. Immunity following disease or vaccination is probably life-long. More than one primary infection with varicella is unusual.

**Under what circumstances would you obtain a varicella titer after vaccination?**

Postvaccination serologic testing is not recommended in any group, including vaccinated health care workers.

by William L. Atkinson, MD, MPH

**Lyme disease**

**How serious is Lyme disease?**

Lyme disease is the most common insect-transmitted disease in the United States. About 12,000 to 13,000 cases are reported to CDC each year, primarily from states in the northeast, mid-Atlantic, upper midwest, and from northern California. The disease is characterized by a rash, fever, fatigue, and muscle and joint pain. If not adequately treated with antibiotics, Lyme disease may progress to neurologic or rheumatic complications.

**Who should receive Lyme disease vaccine?**

LYMErix (SmithKline Beecham) is licensed for persons 15–70 years of age. It should not be given to children younger than 15 years of age until approved by the FDA for this age group. Safety and efficacy studies in children are in progress now. Lyme disease vaccine should be considered for persons who reside, work, or recreate in areas of high or moderate risk during Lyme disease transmission season, and who engage in activities that result in frequent or prolonged exposure to tick-infested habitat. The vaccine may be considered for persons in areas of high or moderate risk but whose exposure to tick-infested habitats is neither frequent nor prolonged. An upcoming ACIP statement will include a map to indicate moderate- and high-risk counties. The statement should be published sometime in mid-1999.

**What is the dosing schedule for Lyme disease vaccine?**

Optimum protection from the vaccine requires 3 doses. The first two doses are given a month apart, and dose #3 is given 12 months after dose #1. Ideally, all 3 doses should be completed one month prior to the anticipated tick-exposure. However, if your patient hasn’t planned a year in advance, dose #1 is recommended 2 months before the anticipated tick-exposure and dose #2 one month later. (Dose #3 should be given 11 months later.)

**How effective is Lyme disease vaccine?**

Vaccine efficacy of LYMErix against clinical Lyme disease in clinical trials was 49% after two doses and 76% after three doses.

**Are booster doses needed every year?**

The need for booster doses has not yet been determined. Studies are ongoing.

by William L. Atkinson, MD, MPH

**Rabies**

**An updated ACIP statement on rabies was released in January 1999. What’s new?**

“Human Rabies Prevention—United States, 1999,” Recommendations of the Advisory Committee on Immunization Practices, was published in the MMWR on January 8, 1999. The 1999 statement contains new information on the following topics: a human rabies vaccine that was FDA-approved for use in the U.S. in 1997; recommendations regarding exposure to bats; recommendations regarding an observation period for domestic ferrets; and changes in how to administer rabies immune globulin.

**Editors’ note: For information on how to obtain this ACIP statement, see page 4, column 1.**

**Who should be offered preexposure rabies vaccination?**

Preexposure vaccination should be offered to persons in high-risk groups, such as veterinarians, animal handlers, and certain laboratory workers. Preexposure vaccination also should be considered for other persons whose activities bring them into frequent contact with rabies vi-
Influenza

by William L. Atkinson, MD, MPH

Should household contacts of a patient with a chronic illness receive influenza vaccine even though the patient received the vaccine? Yes. All household contacts (6 months of age or older) of persons with “high-risk” conditions or persons 65 years of age or older should receive annual influenza vaccination.

In whom is influenza vaccine contraindicated? Persons who have experienced a severe allergic reaction to a prior dose of influenza vaccine, or who are known to have a severe allergy to a vaccine component (such as egg protein) should not be vaccinated. Vaccination should be deferred for a person with moderate or severe acute illness until his/her condition improves. It seems prudent to avoid subsequent influenza vaccine in persons known to have developed Guillain-Barré syndrome within 6 weeks of a previous influenza vaccination.

Pneumococcal

by William L. Atkinson, MD, MPH

How severe is pneumococcal disease? Pneumococcal infection is estimated to cause up to 40,000 deaths annually in the U.S., accounting for more deaths than any other vaccine-preventable bacterial disease. Approximately half of these deaths potentially could be prevented through the use of vaccine. Case-fatality rates are highest for meningitis and bacteremia, and the highest mortality occurs among the elderly and patients who have underlying medical conditions. Among children, death from pneumococcal infections is relatively uncommon except among those who have meningitis, are immunocompromised, or have undergone splenectomy. Despite appropriate antimicrobial therapy and intensive medical care, the overall case-fatality rate for pneumococcal bacteremia is 15–20% among adults. Among elderly patients, this rate is approximately 30–40%.

My in-laws received pneumococcal vaccine this year and they forgot they had received it last year. Have there been problems with repeating this vaccine dose? Two doses of pneumococcal vaccine close together could lead to an increase in local reactions, such as pain, redness, or swelling at the site of injection.

Hepatitis B

by Linda Moyer, RN, and Harold Margolis, MD

I work in a dialysis unit. Our lab reports anti-HBs results as adequate or inadequate, rather than providing a quantitative result. Is this acceptable? Reporting of adequate and inadequate is acceptable only if your lab is using mIU as the measurement for anti-HBs and the cutoff is below 10 for reporting inadequate anti-HBs and 10 or above for reporting adequate anti-HBs. You should check with your lab to be certain this is being done.

For a pre-employment physical, a health care worker states she received all three hepatitis B vaccine doses as an adolescent. Would you do a titer? This is a situation that will become more common in the future and for which there are no specific guidelines. A reasonable approach, however, can be developed from current recommendations. Currently, CDC recommends postvaccination testing for antibody to hepatitis B surface antigen (anti-HBs) 1–2 months after the last dose of hepatitis B vaccine for persons vaccinated as health care workers or in training. This employee was vaccinated as an adolescent, and postvaccination testing was not done since it was not indicated at the time of vaccination.

If the health care worker has written documentation of three doses of vaccine given as an adolescent, that should be sufficient to meet the needs of the employer and the requirements of OSHA guidelines. Another option would be to test the person for the presence of anti-HBs, since a person vaccinated as an adolescent is still likely to have detectable antibody. If the person, however, is anti-HBs negative on testing, that does not mean s/he was not immunized, since s/he could have lost detectable antibody over time and still be protected. If the person is found to be anti-HBs negative, that status should be recorded on her/his employee health record along with the vaccination history. If the health care worker subsequently has a blood exposure, s/he should follow the current guidelines for postexposure immunoprophylaxis. If the health care worker has no written documentation of vaccination as an adolescent, the person should receive the 3-dose vaccine series and anti-HBs testing 1–2 months after the full series.

Do you know which vaccines are recommended for health care workers?


If you need a copy, call your state or local health department.
more doses of vaccine according to the recommended schedule and test 1–2 months after the third dose of vaccine. If anti-HBs is adequate, they are protected; if inadequate, they are “non-responders” to the vaccine.

**How many days after a percutaneous exposure can HBIG be given? Our lab doesn’t provide blood results until 7 days after the blood is drawn. Should we wait to give HBIG, or should we go ahead with HBIG and hepatitis B vaccine?**

If you must wait on testing to determine the patient’s HBsAg status, vaccine should be started immediately while awaiting test results. HBIG can then be given within 7 days if the patient is HBsAg-positive. Considering the type of tests that are available today, laboratories should be capable of reporting results back to you within 7 days. We would not give HBIG farther out than 7 days from an exposure to HBsAg-positive blood. The hepatitis B vaccine series, however, should be completed and would alone offer good protection.

If the health care worker had been vaccinated and had developed adequate anti-HBs, this would not be an issue. If the exposure is to known HBsAg-positive blood and the health care worker was not vaccinated, a single dose of HBIG (0.06mL/kg) should be given as soon as possible after exposure (within 24 hours, if possible). The first dose of hepatitis B vaccine should be administered at a different site, but at the same time as the HBIG. The vaccine series should be completed according to current recommendations.

---

**HBV Clinical Trials**

The National Institute of Allergy and Infectious Diseases has information about adult HBV clinical trials being conducted in the U.S. for the treatment of chronic HBV infection.

For information, contact Lanette Sherrill, CRNP, MSN at 205-934-2424.

---

**Hepatitis A**

by Linda Moyer, RN, and Harold Margolis, MD

I have a patient on interferon for hepatitis C, but I want to give him hepatitis A and hepatitis B vaccines. Is it okay to vaccinate him against hepatitis A and B while he is on interferon?

Patients with chronic liver disease are at increased risk for adverse outcomes if they acquire hepatitis A virus (HAV) infection. Therefore, hepatitis A vaccine should be given to all susceptible patients with chronic liver disease. Hepatitis A vaccine is very immunogenic and the patient’s diminished immune status due to interferon should not affect the immunogenicity and effectiveness of the vaccine, although there are no data to support that statement. Studies still need to be done to address this issue. Current assays are generally not adequate for hepatitis A postvaccination testing as protective levels of antibody produced by vaccination may be at a level that the test cannot detect. Clearly, if antibody testing is done and the result is positive in a vaccinated patient, that patient is protected.

If the patient is in a group for whom hepatitis B vaccine is recommended, interferon treatment should not preclude hepatitis B vaccination. Post-vaccination testing, however, should be done 1–2 months after the last dose of hepatitis B vaccine to assure adequate protection.

---

**Where to get adult immunization resources**

Contact these organizations for immunization and/or hepatitis B resources:

- **Centers for Disease Control & Prevention**
  - Immunization Information Hotline: 800-232-2522
  - Immunization website: www.cdc.gov/nip
  - Hepatitis Information Hotline: 888-443-7232
  - Hepatitis website: www.cdc.gov/ncidod/diseases/hepatitis/index

- **Immunization Action Coalition**
  - Immunization and hepatitis B treatment information: 651-647-9009 • www.immunize.org

- **Hepatitis Foundation International**
  - 800-891-0707 • www.hepfi.org

- **Hepatitis B Foundation**
  - 215-489-4900 • www.hepb.org

- **National Coalition for Adult Immunization**
  - 301-656-0003
  - www.medscape.com/affiliates/ncai

- **Health Care Financing Administration**
  - 816-426-5233

- **Vaccine Adverse Event Reporting System**
  - 800-822-7967 • www.fda.gov/cber/vaers

---

**What kind of neckwear would a smart pig choose?**

-A pigsty!
## Adult Resources

**Brochures, videos, and more**

**STOP**

Before you order, REMEMBER...

All of our materials are camera ready, copyright free, and reviewed by national experts! Some are in other languages as well as in English. You can order one of any item and make as many copies as you need (including videos).

**Join the Coalition!** With a $40 or greater membership contribution for 1999 we'll send you all of the **print and video** materials listed on this page. Your contribution will keep you on our mailing list and help us produce future issues of **VACCINATE ADULTS!** Please join us today!

---

### Order Form

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Brochures for your patients</th>
<th>Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P4030 Vaccinations for adults</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4035 Immunizations...not just kids' stuff</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4041 Shots for adults with HIV</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4042 Vaccinations for adults with hepatitis C</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4070 Chickenpox isn't just an itchy, contagious rash</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4090 Questions frequently asked about hepatitis B</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4115 Hepatitis A is serious, should you be vaccinated?</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4116 You don't have to go all the way to get hepatitis A</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4080 Hepatitis B vaccines &amp; 100 times easier to catch than HIV (a brochure for men who have sex with men)</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4112 Every week 1000s of sexually active people get hep B</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4117 Hep B information for adults &amp; children from endemic areas</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4170 Hep B vaccination: Varicella kills</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2011 Summary of rules for adult immunization</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2015 Pneumococcal vaccine: who needs it?</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2020 Vaccine handling, storage, and transport</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2021 Ask the experts: compilation of past immunization Q &amp; A</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2023 Vaccine administration record for adults</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2027 NEW! It's federal law! You must give VISs</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2045 Tips to improve your clinic's immunization rates</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2058 NEW! Vaccinate! Varicella kills</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2060 Hospitals &amp; doctors sued for failing to immunize</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2081 Recommended dosages of hep A &amp; B vaccines</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2101 No risk?? No way!!</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2109 Hepatitis B and the health care worker</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2110 REVISED Basic knowledge about hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2112 REVISIONS Basic facts about adult hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2124 Hepatitis B vaccines: a basic fact sheet</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2128 Hepatitis B...100 times easier to catch than HIV (a brochure for men who have sex with men)</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2132 Management of chronic hepatitis B</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2180 Tracking hepatitis B patients and contacts</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4065 Screening questionnaire for adult immunization</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4140 Sample letter explaining hep B test results to patients</td>
<td>$1</td>
</tr>
</tbody>
</table>

### Materials for your clinic staff

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Brochures for your patients</th>
<th>Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P2100 Summary of rules for adult immunization</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2011 Pneumococcal vaccine: who needs it?</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2020 Vaccine handling, storage, and transport</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2021 Ask the experts: compilation of past immunization Q &amp; A</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2033 Vaccine administration record for adults</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2027 NEW! It's federal law! You must give VISs</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2045 Tips to improve your clinic's immunization rates</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2058 NEW! Vaccinate! Varicella kills</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2060 Hospitals &amp; doctors sued for failing to immunize</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2081 Recommended dosages of hep A &amp; B vaccines</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2101 No risk?? No way!!</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2109 Hepatitis B and the health care worker</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2110 REVISED Basic knowledge about hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2112 REVISIONS Basic facts about adult hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2124 Hepatitis B vaccines: a basic fact sheet</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2128 Hepatitis B...100 times easier to catch than HIV (a brochure for men who have sex with men)</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2132 Management of chronic hepatitis B</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2180 Tracking hepatitis B patients and contacts</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4065 Screening questionnaire for adult immunization</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4140 Sample letter explaining hep B test results to patients</td>
<td>$1</td>
</tr>
</tbody>
</table>

### Payment, shipping, and handling information

- Minimum order/donation $10.
- We request prepayment by check, credit card or purchase order.
- Checks must be in U.S. dollars.
- Order form must accompany check, P.O., or credit card order.
- Our Federal ID number is 41-1768237.
- Orders shipped via fourth-class mail. No charge for shipping or handling within the U.S.
- Expect delivery in approximately three weeks.

### Immunization Action Coalition

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

### Materials for your clinic staff

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Brochures for your patients</th>
<th>Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P2100 Summary of rules for adult immunization</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2011 Pneumococcal vaccine: who needs it?</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2020 Vaccine handling, storage, and transport</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2021 Ask the experts: compilation of past immunization Q &amp; A</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2033 Vaccine administration record for adults</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2027 NEW! It's federal law! You must give VISs</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2045 Tips to improve your clinic's immunization rates</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2058 NEW! Vaccinate! Varicella kills</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2060 Hospitals &amp; doctors sued for failing to immunize</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2081 Recommended dosages of hep A &amp; B vaccines</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2101 No risk?? No way!!</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2109 Hepatitis B and the health care worker</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2110 REVISED Basic knowledge about hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2112 REVISIONS Basic facts about adult hepatitis B</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2124 Hepatitis B vaccines: a basic fact sheet</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2128 Hepatitis B...100 times easier to catch than HIV (a brochure for men who have sex with men)</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P2132 Management of chronic hepatitis B</td>
<td>$5</td>
</tr>
<tr>
<td></td>
<td>P2180 Tracking hepatitis B patients and contacts</td>
<td>$1</td>
</tr>
<tr>
<td></td>
<td>P4065 Screening questionnaire for adult immunization</td>
<td>$1/ea</td>
</tr>
<tr>
<td></td>
<td>P4140 Sample letter explaining hep B test results to patients</td>
<td>$1</td>
</tr>
</tbody>
</table>

---

**Please Join the Coalition!**

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

I appreciate VACCINATE ADULTS! Here's my contribution to help defray costs ($25 suggested) $________

Here is my 1999 membership contribution

- $40
- $75
- $100
- $250
- Other $________

I'm joining the Coalition at a $40 level or higher. Please send me all of your listed print materials and videos in English.

I would like to receive whatever translations you have in:

- Spanish
- Cambodian
- Chinese
- Hmong
- Korean
- Laotian
- Russian
- Vietnamese

Grand Total $________

**Method of payment:**

- [ ] Check enclosed
- [ ] Credit card
- [ ] Visa
- [ ] Mastercard
- [ ] Am. Express
- [ ] Discover
- Exp. Date __________

**Signature**

______________________________

Card # ____________

Sign me up for “IAC Express”

- [ ] Sign me up for IAC Express (the Coalition’s free e-mail news service).

My e-mail address is ________________________________

(Write your e-mail address VERY LEGIBLY so that you can be added to our list!)

**Mailcode (copy the code that appears above your name on the mailing label)**
Dear Colleague:

Please make sure you check your patient’s immunization status at every visit. Whether it’s an acute care visit, a chronic disease check, a physical, or a hospital visit, every visit, any visit, is an excellent (and often missed) opportunity to vaccinate.

Adult immunization rates are not good. A CDC survey published in October 1998 indicated that in 1997 only 65.5% of adults 65 years of age and older had received a dose of influenza vaccine during the previous year and, worse, only 45.4% of these same adults had ever received a dose of pneumococcal vaccine.

Children’s vaccination rates are soaring, and we need to work harder to achieve the same vaccination rates in adults. Two-year olds, who need many more doses of vaccines, are approaching a 90% vaccination rate. There is no reason we can’t achieve the same rate for adults. If we roll up our adult patients’ sleeves whenever the opportunity arises, we could make the rates soar and, even more importantly, make the number of vaccine-preventable deaths in adults (~45,000/year) plummet.

Remember… many of your patients also need to be vaccinated against hepatitis B. If you need a reminder about who needs hepatitis B vaccine, see “Ask the Experts” on page 10.

Let’s redouble our efforts to make each office and hospital visit an opportunity to vaccinate. Our patients are counting on us.

Deborah L. Wexler, MD
Executive Director

Vaccinate grown-ups… it’s the adult thing to do!

Immunization Action Coalition
Publishers of VACCINATE ADULTS!
1573 Selby Avenue, Suite 234
Saint Paul, MN 55104

Method of payment:
☐ Check enclosed
☐ Credit card

Card # __________________________
Exp. Date _______________________

Thank you for your support!
The Coalition receives tremendous support from our readers. Thank you so much.

Thank you to CDC!
CDC provides invaluable technical support to us as well as a substantial federal grant.

Thank you for your educational grants!
• American Pharmaceutical Association
• Aviron
• Chiron Corporation
• Glaxo Wellcome
• Medical Arts Press
• Merck & Co.
• North American Vaccine
• Pasteur Mérieux Connaught
• SmithKline Beecham
• Wyeth-Lederle Vaccines

The IAC receives funding from a variety of sources but has strict editorial independence.

Did you receive more than one copy?
Please fax or mail us copies of your mailing labels and we’ll try to rectify the problem.
And for now, please pass extra copies along to people who can use them.