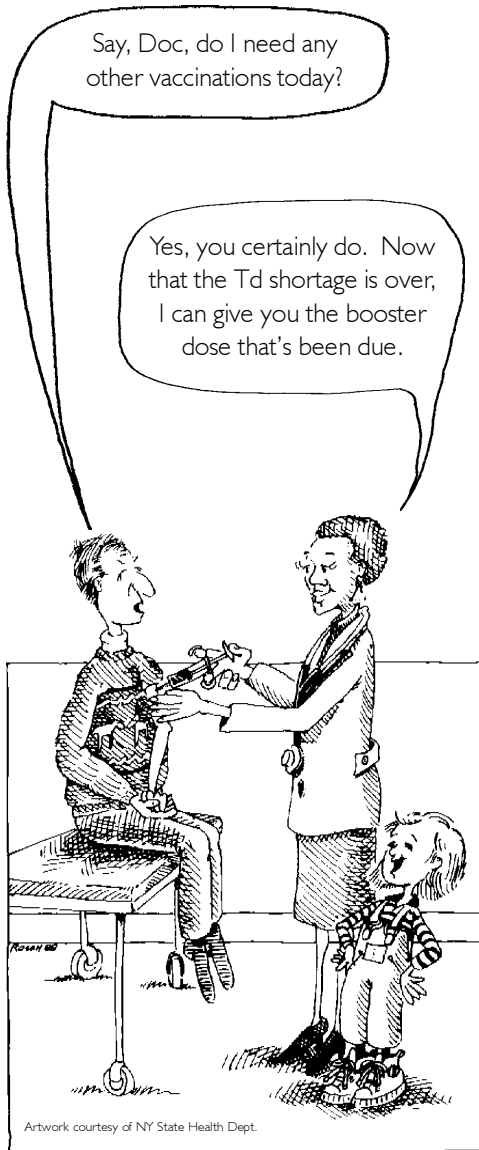


VACCINATE ADULTS!

A bulletin for adult medicine specialists from the Immunization Action Coalition

Highlighting the latest developments in routine adult immunization and chronic hepatitis B virus infection.



Artwork courtesy of NY State Health Dept.

Ask the Experts

Editor's note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH; Stephen C. Hadler, 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, serves as CDC liaison to the Coalition. Dr. Hadler has been acting director of the Division of Viral Hepatitis during Dr. Margolis' special assignment. Ms. Moyer is an epidemiologist at the Division of Viral Hepatitis.

General vaccine questions

by William L. Atkinson, MD, MPH

Where can I find the most up-to-date information about vaccine shortages?

The vaccine shortage/supply situation changes frequently. The most current information can be found on CDC's National Immunization Program website at www.cdc.gov/nip/news/shortages

Immunization questions?

- E-mail nipinfo@cdc.gov
- Call CDC's Immunization Information Hotline at (800) 232-2522

What's new in the Advisory Committee on Immunization Practices (ACIP) statement "General Recommendations on Immunization" and how do I obtain a copy?

New or revised material in the 2002 revision of the *General Recommendations on Immunization* includes an expansion of the discussion of vaccine spacing and timing; recommendations for vaccines administered by an incorrect route or site; an expanded discussion of contraindications and precautions; and recommendations for vaccination of internationally adopted children and stem cell transplant recipients. Other new sections include a discussion of latex allergy, prevention of adverse events, immunization registries, and risk communication. The document can be downloaded from the *MMWR* website at www.cdc.gov/mmwr or a paper copy can be ordered using the National Immunization Program online system at www.cdc.gov/nip/publications or by calling CDC's Immunization Information Hotline at (800) 232-2522.

How often should temperatures be recorded for refrigerator and freezer compartments where vaccines are stored?

Temperatures should be recorded for refrigerator and freezer compartments used to store vaccine at

least twice a day. Immediate action must be taken if the temperature falls outside the recommended range for either compartment. This is particularly important for refrigerator temperatures $\leq 32^{\circ}\text{F}$.

Editor's note: See IAC's new temperature logs on pages 8-9.

When is a "dormitory style" refrigerator not adequate for storing vaccines?

This type of unit is not acceptable for storing varicella vaccine because the freezer compartment cannot maintain 5°F consistently. A dormitory refrigerator may be used for storing small amounts of vaccines that require only refrigeration if the unit can maintain a consistent temperature of $35-46^{\circ}\text{F}$.

At our clinic we've been giving some of our vaccines by the wrong route, e.g., MMR vaccine IM instead of SC. Do these doses need to be repeated?

ACIP addresses the issue of vaccines given by an incorrect route in the 2002 revision of the *General Recommendations on Immunization*. ACIP recommends that vaccines always be administered by the route recommended by the manufacturer. However, only hepatitis B vaccine should be repeated if given by an incorrect route. MMR and varicella vaccines should be administered by the SC route, but do not need to be repeated if given IM. The Division of Viral Hepatitis at CDC recommends that all doses of hepatitis A vaccine given by a route other than intramuscular, be repeated using the IM route.

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2002
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VACCINATE ADULTS!

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VACCINATE ADULTS! is a semiannual publication of the Immunization Action Coalition (IAC) written for health professionals. All information in **VACCINATE ADULTS!** is reviewed by the Centers for Disease Control and Prevention (CDC) for technical accuracy, with the exception of opinion pieces written by non-CDC authors. Circulation is now approximately 155,000. ISSN 1526-1824.

This publication is supported by CDC Grant Nos. U66/CCU518372-02 and U50/CCU518789-02. The contents of the publication are solely the responsibility of IAC and do not necessarily represent the official views of CDC.

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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 highlights

Latest recommendations and schedules

Editor's note: The information on these pages is current as of July 19, 2002.

The next ACIP meetings

The Advisory Committee on Immunization Practices (ACIP) is a committee of 15 national experts that provides advice and guidance to CDC regarding the most appropriate use of vaccines. ACIP meetings are held three times a year in Atlanta, Ga., and are open to the public. The next meetings will be held Oct. 16-17 and Feb. 26-27, 2003.

ACIP statements

All practices should have a set of these recommendations on vaccines, which are published in the *Morbidity and Mortality Weekly Report (MMWR)*. Continuing education credits are available for reading the statement and completing the brief test at the end of the statement.

To obtain ACIP statements:

- 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 Information Hotline at (800) 232-2522.

Recently published ACIP statements:

- "Draft Supplemental Recommendations of ACIP on the Use of Smallpox (Vaccinia) Vaccine" (6/20/02)
- "Prevention & Control of Influenza" (4/12/02)
- "General Recommendations on Immunization" (2/8/02)

Vaccine supply news

On June 21, 2002, "Resumption of Routine Schedule for Tetanus and Diphtheria Toxoids" was published in *MMWR*. The notice reinstated the routine schedule for Td boosters for adolescents and adults.

On Feb. 25, 2002, GlaxoSmithKline (GSK) discontinued the manufacturing of Lymerix, the Lyme disease vaccine, and requested that practices return any remaining vaccine. For more information, call GSK at (866) 475-8222.

General vaccine news

On Feb. 8, 2002, the ACIP statement "General Recommendations on Immunization" was published in *MMWR* (Vol. 51, No. RR-2).

This statement was previously published in 1994. Some of the principal changes include expansion of the discussion of vaccination spacing and timing, recommendations for vaccinations administered by an incorrect route, timing of live-virus vaccination and tuberculosis screening, expansion of the discussion and tables of contraindications and precautions regarding vaccinations, and the addition of a directory of immunization resources. To obtain a copy of this statement, call CDC's Immunization Information Hotline at (800) 232-2522 or visit www.cdc.gov/mmwr/pdf/rr/rr5102.pdf

Editor's note: IAC strongly recommends that all health care settings with vaccination services keep a copy of the "General Recommendations" with their other essential immunization reference materials.

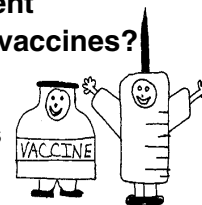
Influenza vaccine news

On April 12, 2002, the ACIP statement "Prevention and Control of Influenza" was published in *MMWR* (Vol. 51, No. RR-3). The primary adult target groups recommended for vaccination beginning in October (highest priority) are 1) groups who are at increased risk for influenza-related complications (e.g., all persons aged ≥ 65 years and persons aged 6 months to 64 years of any age with certain chronic medical conditions); 2) residents of nursing homes; 3) women who will be in their second or third trimester of pregnancy during the influenza season; and 4) household contacts of high-risk persons (including contacts of

(continued on page 14)

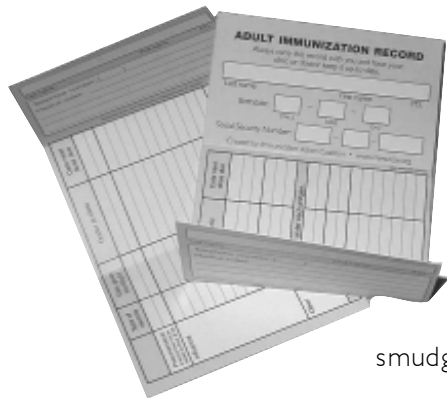
Looking for excellent information about vaccines?

www.cdc.gov/nip
www.cdc.gov/hepatitis
www.immunize.org
www.immunize.org/express



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Immunization record card for adults!



Give all your adult patients a permanent vaccination record card from IAC. With this card, they'll always know their vaccination status—and next-dose due dates.

The bright canary yellow card comes pre-folded to fit in a wallet alongside other important cards. Printed on rip-proof, smudge-proof, water-proof paper, it's meant to last.

Finally, a high-quality vaccination record card for adults.

To view a full-color version of both sides of this card visit:
www.immunize.org/adultzcards/pictures.htm

How to Order

Adult Immunization Record Cards are available by the box, 250 cards/box.
 (Includes a 30-day money back guarantee for your first order of a 250-card box)

There are three ways to order:

1. Order online at <https://www.immunize.org/adultzcards>
2. Complete this form and fax your order to (651) 647-9131.
3. Complete this form and mail to: **Immunization Action Coalition, 1573 Selby Ave., Suite 234, St. Paul, MN 55104**

Circle the quantity you wish to order.

1 box (250 cards)—\$25	2 boxes (500 cards)—\$45	3 boxes (750 cards)—\$60	4 boxes (1000 cards)—\$70
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Make checks or money orders payable to: **Immunization Action Coalition**

Method of payment: Check enclosed Purchase order # _____

Exp. date _____ Visa Mastercard Am. Express Discover

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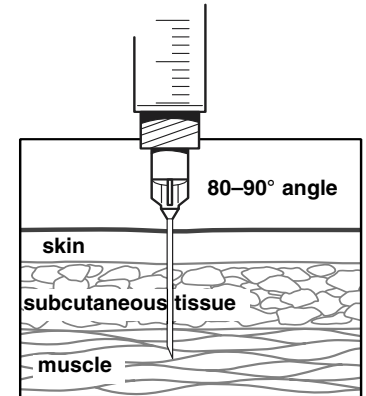
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How to Administer Intramuscular (IM) Injections

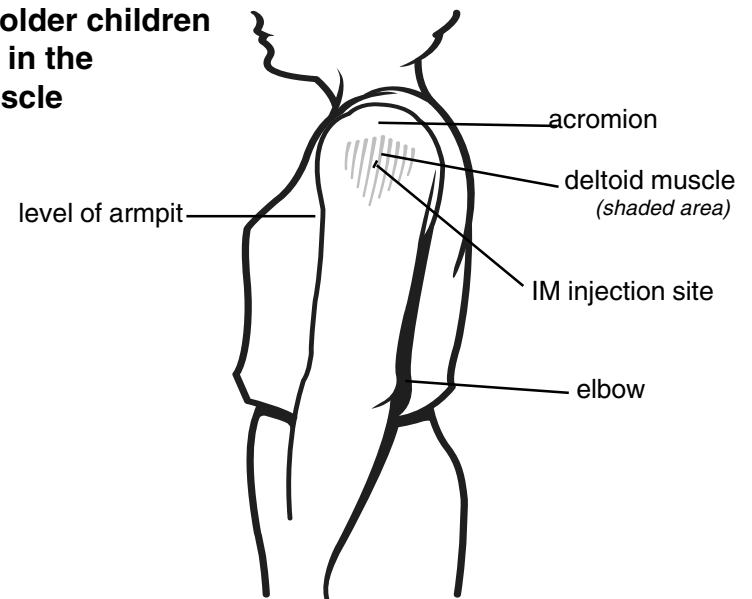
Administer these vaccines via intramuscular (IM) route: DTaP, DT, Td, Hib, hepatitis A, hepatitis B, influenza, PCV7. Administer IPV and PPV23 either IM or SC.

Patient age	Site	Needle size	Needle insertion
Infants (birth to 12 mos. of age)	Vastus lateralis muscle in anterolateral aspect of middle or upper thigh	7/8" to 1" needle, 23–25 gauge	<p>Use a needle long enough to reach deep into the muscle.</p> <p>Insert needle at an 80–90° angle to the skin with a quick thrust.</p> <p>There are no data to document the necessity of aspiration.*</p> <p>Multiple injections given in the same extremity should be separated by a minimum of 1".</p> <p><small>*American Academy of Pediatrics. 2000 Red Book: Report of the Committee on Infectious Diseases: p.18.</small></p>
Young children (12 to 36 mos. of age)	Vastus lateralis muscle preferred until deltoid muscle has developed adequate mass	7/8" to 1" needle, 23–25 gauge	
Older children (>36 mos. of age) and adults	Thickest portion of deltoid muscle—above level of armpit and below acromion	1" to 2" needle, 23–25 gauge	



IM site for infants and young children in the anterolateral thigh

Insert needle at an 80–90° angle into vastus lateralis muscle in the anterolateral aspect of middle or upper thigh.



IM site for older children and adults in the deltoid muscle

Insert needle at an 80–90° angle into densest portion of deltoid muscle—above the level of armpit and below the acromion.

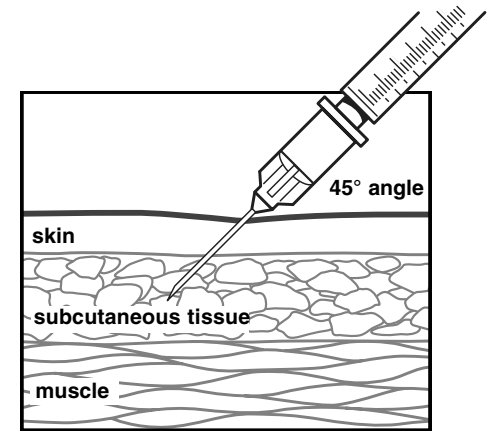
Adapted by the Immunization Action Coalition courtesy of the Minnesota Department of Health

www.immunize.org/catg.d/p2020.pdf • Item #P2020 (07/02)

How to Administer Subcutaneous (SC) Injections

Administer these vaccines via subcutaneous (SC) route: MMR, varicella, meningococcal. Administer IPV and PPV23 either SC or IM.

Patient age	Site	Needle size	Needle insertion
Infants (birth to 12 mos. of age)	Fatty area of the thigh	5/8" to 3/4" needle, 23–25 gauge	<p>Pinch up on SC tissue to prevent injection into muscle.</p> <p>Insert needle at 45° angle to the skin.</p> <p>There are no data to document the necessity of aspiration.*</p> <p>Multiple injections given in the same extremity should be separated by a minimum of 1".</p> <p><small>*American Academy of Pediatrics. 2000 Red Book: Report of the Committee on Infectious Diseases: p.18.</small></p>
Young children (12 to 36 mos. of age)	Fatty area of the thigh or outer aspect of upper arm (see both illustrations below)	5/8" to 3/4" needle, 23–25 gauge	
Older children (>36 mos. of age) and adults	Outer aspect of upper arm	5/8" to 3/4" needle, 23–25 gauge	

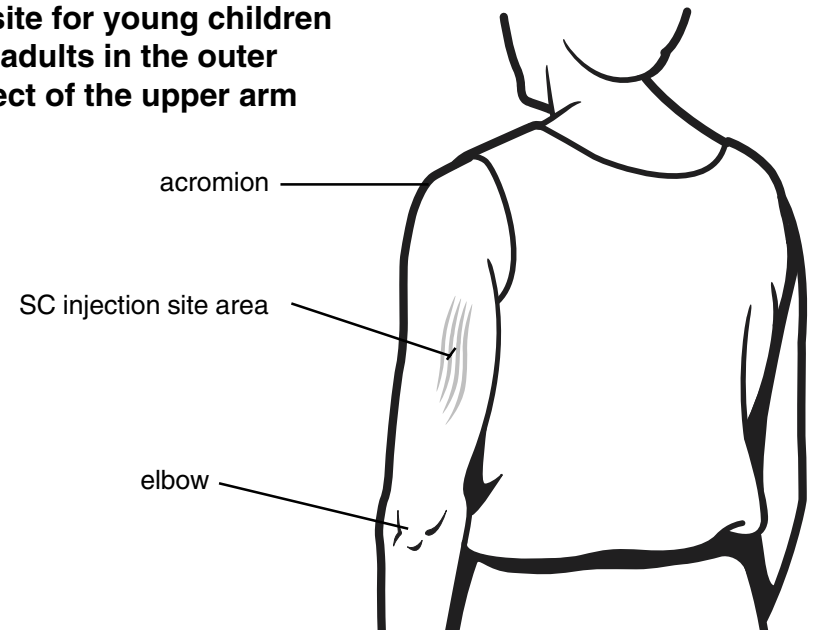


SC site for infants and young children in the anterolateral thigh

SC injection site area

Insert needle at a 45° angle into fatty area of anterolateral thigh. Make sure you pinch up on SC tissue to prevent injection into the muscle.

SC site for young children and adults in the outer aspect of the upper arm



Insert needle at a 45° angle into outer aspect of upper arm. Make sure you pinch up on the SC tissue to prevent injection into the muscle.

Adapted by the Immunization Action Coalition courtesy of the Minnesota Department of Health

www.immunize.org/catg.d/p2020.pdf • Item #P2020 (07/02)

Hepatitis B Facts: Testing and Vaccination

— Who needs hepatitis B vaccine? —

People in the groups listed below are at moderate or high risk for hepatitis B virus (HBV) infection and should be vaccinated.

- Immigrants/refugees from areas of high HBV endemicity (Asia, Sub-Saharan Africa, Amazon Basin, Eastern Europe, Middle East) as well as children born in the United States to persons from these areas.
- Alaska Natives and Pacific Islanders
- Household contacts and sex partners of people with chronic HBV infection
- People who have had a sexually transmitted disease
- People with more than one sex partner in six months
- Men who have sex with men
- Users of illicit injectable drugs and their sex partners
- Health care workers and public safety workers who have contact with blood
- Adopted children from countries where HBV is endemic
- Hemodialysis patients
- Recipients of certain blood products
- Clients and staff of institutions for the developmentally disabled
- Inmates in long-term correctional facilities
- Certain international travelers

Hepatitis B vaccination is recommended for all children 0–18 years of age.

— Hepatitis B lab nomenclature —

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

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

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

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

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

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

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

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

— Who needs serologic testing? —

Prior serologic testing may be recommended depending on the specific level of risk and/or likelihood of previous exposure. If you decide to test, draw the blood first, and then give the first dose of vaccine at the same office visit. Vaccination can then be continued, if needed, based on the results of the tests. If you are not sure who needs screening, call your liver disease consultant or your state or local health department for details. It is especially important to screen individuals who have emigrated from endemic areas.

When people with chronic HBV infection are identified, offer them appropriate disease management. In addition, their household members and intimate contacts should be screened and, if found susceptible, vaccinated. General guidelines on hepatitis B risk groups, testing, and vaccination can be found in the ACIP statement “Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States through Universal Childhood Vaccination: Recommendation of the ACIP.” You can get a copy of the ACIP statement by calling CDC’s Immunization Information Hotline at (800) 232-2522 or by visiting IAC’s website at: www.immunize.org/acip A revised ACIP statement on hepatitis B vaccine, expected to be published in early 2003, will contain more information on this subject.

— Interpreting the hepatitis B panel —

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

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

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

www.immunize.org/catg.d/p2110.pdf • Item # P2110 (7/02)

Unprotected people . . .

Young doctor learns he has liver cancer too late

By Joel P. Engardio

A lack of information about how to appropriately screen patients with chronic hepatitis B for liver cancer puts many lives in jeopardy. The following story about a young doctor's death from hepatitis B-related liver cancer is a tragic example of the consequence of inadequate medical attention to people with chronic hepatitis B. For information about the management of patients with hepatitis B, consult a liver specialist experienced in the treatment of viral hepatitis.

From our table at a sidewalk cafe in August 2000, my partner Mark and I took turns pointing out things that made us smile: a young couple pushing a baby stroller, a rambunctious puppy tugging at his leash, an elderly couple holding hands. Our mood was sublime, like the day, as we headed to an open-air jazz festival near San Francisco with a blanket for napping on a grassy slope.

Until a sharp stomach pain made Mark wince and double over. Was it the ulcer he feared? At 30, Mark was a young doctor saddled with debt and the challenge of building a career after eight sleepless years of medical school and training. A life with dogs and kids was only a wistful thought. He crawled into the back seat of the car, cursing and writhing, as I sped him to the emergency room where he worked.

Mark didn't have an ulcer. An ultrasound of his abdomen showed an ominously patchy liver. A biopsy confirmed the worst: cancer. His liver was riddled with so many out-of-control cancerous lesions that neither surgery nor transplant was possible. Chemotherapy would only slow his inevitable, insufferable demise 14 months later. But the question remained, how did such an otherwise perfectly healthy young man, who had a gym-toned body and never drank, end up with the organ of a hard-living alcoholic twice his age? The answer was chronic hepatitis B, a virus that can silently harbor in a healthy liver for decades before unleashing its destructive power.

Mark knew about his hepatitis. He discovered it from blood tests required by his medical internship. But experts at the prestigious Midwestern hospital where Mark did his residency told the 26-year-old not to worry. He was a "healthy" carrier, they said. His symptom-free, nonactive kind of hepatitis wouldn't have to be monitored for liver cancer until he was in his 50s or 60s. Good advice, if Mark were not an Asian man. (*Editor's note: No hepatitis B carrier, regardless of ethnicity, should wait until age 50 or 60 for liver cancer screening. Screening people with chronic hepatitis B infection for liver cancer should generally be done every 6–12 months and should start at the time of hepatitis B diagnosis. Consult a liver specialist experienced in the treatment of viral hepatitis for appropriate monitoring guidelines.*) Had he or his doctors been trained to know that Asians are at ac-

celerated risk because they are typically infected as children, he would have immediately gotten regular ultrasounds and blood tests to catch the cancer that killed him at 31.



Dr. Mark Lim (right) pictured with the author.

Soon after his diagnosis, Mark was shocked to see a sign on a city bus advertising Stanford University's "Jade Ribbon Campaign," a program to raise awareness of his disease. Was there really a chronic hepatitis B-fueled epidemic of liver cancer among young Asian-Americans? Are Asians

Up to 10 percent of adult Asian-Americans have chronic hepatitis B and do not know it. Of those, a quarter will die from liver cancer or failure.

really 10 times more likely to die from liver cancer than a white person? How come he hadn't heard this before? He was, after all, an Asian doctor practicing in a region with a population that is nearly one-third Asian. But as a victim among healers, what happened to Mark precisely illustrates the problem, says Dr. Samuel So, director of Stanford's Asian Liver Center. "Only in a medical world that relies almost entirely on a Caucasian model for diagnosis and treatment could such a great health disparity exist," says So, who lectures on ethnicity and medicine at Stanford in addition to his surgical and research duties.

Liver cancer is rampant in Asia. The main culprit is chronic hepatitis B, a virus transmitted by blood or semen. Exposure to it at childbirth is the real problem, because that's when the risk of

chronic or lifelong infection is greatest.

Unsanitary living and medical conditions throughout Asia have fueled hepatitis B infection rates there, as large percentages of mothers unknowingly pass the virus to their kids. Since it can take 30 years to manifest, all adult children of Asian immigrants—even those born in the United States—are at risk. Especially sons. The virus may infect the sexes equally, but it triggers deadly cancer more often in men.

Mark was born and raised in suburban Chicago by Chinese parents who had lived in the Philippines. While many newborns are vaccinated for viruses such as hepatitis in the U.S. today, an entire generation now entering adulthood was not. Stanford's Dr. So estimates that up to 10 percent of adult Asian-Americans have chronic hepatitis B and do not know it. Of those, a quarter will die from liver cancer or failure. That is an alarming number, since the Asian-American population is one of the country's fastest-growing minority groups. In California, 30 percent of San Francisco and 12 percent of Los Angeles is Asian. How many unaware young Asian men will double over in pain one day like Mark did?

Before Mark died last October, he became a spokesperson for the Jade Ribbon Campaign (<http://liver.stanford.edu>), urging all Asians to check their hepatitis status. Confronting his own mortality wasn't easy for him. "It's scary to think of your life in months, instead of years," he told me as his death approached, our dreams of that day at the sidewalk cafe shattered. I am still feeling the anger and despair that can engulf you when the person you love is taken away. It hurts most because Mark Steven Lim was such a vibrant and vital force to his family, friends, and patients. As a talented doctor and consummate human being, he had so much potential to do good. Yet his life was so short, and his death so horrible. In the end, the most he could do was hope his words might inspire his medical colleagues to offer—and his Asian peers to seek—the information that can save thousands like him from his fate. If only they listen. ♦

This article originally appeared in the May 1, 2002, issue of SF Weekly, a San Francisco newspaper. It is reprinted in VACCINATE ADULTS! by permission of the author.

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and case reports about
unprotected people,
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www.immunize.org/stories**

Protect Your Vaccines: Check Temperatures Twice a Day!

Mo./Yr.: _____ Days 1–15

Instructions: Place an “X” in the box that corresponds with the temperature. The hatched zones represent unacceptable temperature ranges. If the temperature recorded is in the hatched zone: 1. **Store the vaccine** under proper conditions as quickly as possible, 2. **Call the vaccine manufacturer(s)** to determine whether the potency of the vaccine(s) has been affected, 3. **Call the immunization program at your local health department** for further assistance: (____) _____, and 4. **Document the action taken** on the reverse side of this log.

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exact Time															
°F Temp	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm
≥49°															
48°															
47°															
46°															
45°															
44°															
Refrigerator temperature	43°														
	42°														
	41°														
	40°														
	39°														
	38°														
	37°														
	36°														
	35°														
	34°														
	33°														
	32°														
	31°														
	30°														
29°															
≤28°															
Freezer temp	≥8°														
	7°														
	6°														
	5°														
	4°														
	≤3°														
Room temp															
Staff Initials															

Adapted by the Immunization Action Coalition courtesy of the Michigan Department of Community Health

www.immunize.org/catg.d/p3039.pdf • Item #P3039 (7/02)

Protect Your Vaccines: Check Temperatures Twice a Day! Mo./Yr.: _____ Days 16–31

Instructions: Place an “X” in the box that corresponds with the temperature. The hatched zones represent unacceptable temperature ranges. If the temperature recorded is in the hatched zone: 1. **Store the vaccine** under proper conditions as quickly as possible, 2. **Call the vaccine manufacturer(s)** to determine whether the potency of the vaccine(s) has been affected, 3. **Call the immunization program at your local health department** for further assistance: (_____) _____, and 4. **Document the action taken** on the reverse side of this log.

Day of Month	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Exact Time																	
°F Temp	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	am pm	
≥49°																	
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≤3°																	
Room temp																	
Staff Initials																	

Adapted by the Immunization Action Coalition courtesy of the Michigan Department of Community Health

The Truth about Using VISs

Many health care providers have heard misconceptions about the use of Vaccine Information Statements (VISs). A VIS is a two-sided information sheet developed by the Centers for Disease Control and Prevention (CDC) informing vaccine recipients (or, if a minor, the parents or legal representatives), of the benefits and risks of a vaccine. The National Childhood Vaccine Injury Act of 1986, a federal law, requires VISs be given out whenever certain vaccines are given. Here are true statements about VISs to counter the most common myths.

Myth: VISs are only required when vaccinating children.

Truth: Federal law requires that VISs be used when vaccinating patients of all ages, not just children.

Myth: You must provide a VIS when giving the first dose of a vaccine series, but it's optional for subsequent doses.

Truth: The most current VIS must be provided before each dose of vaccine is given, including those given in a series. If three doses are required, then three VISs must be given. (A child or adult's medical history may have changed between doses and the information read earlier may no longer apply.)

Myth: VISs must be used for vaccines supplied via the public sector (e.g., VFC); they're optional for vaccines purchased privately.

Truth: VISs are required when certain vaccines are administered, regardless of their source. These vaccines include DTaP, Td, MMR, polio, hepatitis B, Hib, pneumococcal conjugate, and varicella.

Myth: VISs for influenza, hepatitis A, pneumococcal polysaccharide, meningococcal, and anthrax are completely optional.

Truth: While VISs for these diseases are available, they are not required by the federal law but are required if a provider is administering vaccine purchased through a CDC contract. For example, if a clinic gets flu vaccine from the state health department for VFC-eligible children, they must use the most current VIS for influenza.

Myth: If there isn't enough time to have the patient read the VIS before the shots are given, you can give him or her a copy to read at home.

Truth: The idea of a VIS is to provide information about the vaccine and the disease just before the patient will receive the vaccine. It is acceptable, however, to supplement the usual process by giving out VISs at additional times (e.g., pre-natal visits or at birth).

Myth: Federal law requires a signature of the patient (parent/legal representative) that he or she received the appropriate VIS.

Truth: Signatures are no longer required by federal law (although some states may have a separate requirement). To verify that a VIS was given, providers must record in the patient's chart (or permanent office log or file) the following information:

- Which VIS was given (that is, for which vaccine)
- Publication date on the VIS (must be the current version)
- Date the VIS was given

Myth: Providers can modify a VIS to better suit their practices.

Truth: Providers should not change a VIS or write their own VISs. It is permissible to add a practice's name, address, or phone number to an existing VIS. Providers are encouraged to supplement the VIS with other educational materials.

Myth: It's too complicated to use the VISs with patients who don't read or speak English so it's okay to omit their use.

Truth: The law requires that providers ensure all patients (parents/legal representatives) receive the appropriate VIS, regardless of their ability to read English. You may also choose to read them aloud or play one of the videotapes that are available. VISs are also available in 27 languages from IAC's website at www.immunize.org/vis

Myth: Since there aren't VISs for combination vaccines, a VIS can't be given when using these vaccines.

Truth: When giving combination vaccines for which no VIS exists (e.g., Comvax), give out all relevant single VISs. In the case of Comvax, give both Hepatitis B and Hib VISs.

Myth: Merely giving the patient or parent a laminated copy of the VIS to read prior to immunization is adequate under the law.

Truth: If you do this, you must also give the patient or parent a copy of the VIS to take home.

Myth: VISs are merely a bureaucratic hassle and complicate the provider's job in vaccinating his/her patients.

Truth: Providing VISs does take some work, but patients and providers both benefit. The patient/parent who is provided with a VIS feels he or she has a part in the decision-making process. The patient may also identify a valid personal contraindication to immunization after reading the VIS. Finally, the VIS provides many answers to patients' questions about common and uncommon side effects of each vaccine, thereby saving staff time.

Myth: It's too difficult to know the most current VIS information and requirements and it's not all that important anyway.

Truth: The federal law requires that you give the patient the most current version. All current VISs are available from CDC's National Immunization Program (www.cdc.gov/nip), the CDC's Immunization Information Hotline at (800) 232-2522, and your state health department. And, of course, you can always find the most up-to-date information on VISs by visiting the IAC website: www.immunize.org/vis

The biggest myth about VISs is that they are just "busy work" and don't have any real benefit. The truth is, by using the VISs with your patients, you are helping to foster **a better educated patient population** and you're doing the right thing.

INFLUENZA VACCINE

WHAT YOU NEED TO KNOW

2002-2003

1 Why get vaccinated?

Influenza (“flu”) is a serious disease.

It is caused by a virus that spreads from infected persons to the nose or throat of others.

Influenza can cause:

- fever
- sore throat
- chills
- cough
- headache
- muscle aches

Anyone can get influenza. Most people are ill with influenza for only a few days, but some get much sicker and may need to be hospitalized. Influenza causes thousands of deaths each year, mostly among the elderly.

Influenza vaccine can prevent influenza.

2 Influenza vaccine

Influenza viruses change often. Therefore, influenza vaccine is updated each year.

Protection develops about 2 weeks after getting the shot and may last up to a year.

Some people who get flu vaccine may still get flu, but they will usually get a milder case than those who did not get the shot.

Flu vaccine may be given at the same time as other vaccines, including pneumococcal vaccine.

3 Who should get influenza vaccine?

People 6 months of age and older at risk for getting a serious case of influenza or influenza complications, and people in close contact with them (including all household members) should get the vaccine.

An annual flu shot is *recommended* for:

- Everyone **50 years of age or older**.
- Residents of **long-term care facilities** housing persons with chronic medical conditions.
- Anyone who has a **long-term health problem** with:
 - heart disease
 - kidney disease
 - lung disease
 - metabolic disease, such as diabetes
 - asthma
 - anemia, and other blood disorders
- Anyone with a **weakened immune system** due to:
 - HIV/AIDS or another disease that affects the immune system
 - long-term treatment with drugs such as steroids
 - cancer treatment with x-rays or drugs
- Anyone 6 months to 18 years of age on **long-term aspirin treatment** (who could develop Reye Syndrome if they catch influenza).
- **Pregnant women** who will be past the 3rd month of pregnancy during the flu season (usually November - March, but past March in some years).
- Physicians, nurses, family members, or anyone else coming in **close contact with people at risk** of serious influenza

An annual flu shot is also *encouraged* for:

- **Healthy children** 6-23 months of age, and their household contacts and out-of-home caretakers
- **Household contacts and out-of-home caretakers** of infants less than 6 months of age
- People who provide **essential community services**
- People at high risk for flu complications who **travel** to the Southern hemisphere between April and September, or who travel to the tropics or in organized tourist groups at any time
- People living in **dormitories** or under other crowded conditions, to prevent outbreaks
- Anyone who wants to **reduce their chance of catching influenza**

4

When should I get influenza vaccine?

Most people need only one flu shot each year to prevent influenza. Children under 9 years old getting flu vaccine *for the first time* should get 2 shots, one month apart.

The best time to get a flu shot is in October or November. But because the flu season typically peaks between January and March, vaccination in December, or even later can be beneficial in most years.

Some people should be vaccinated beginning in September or October: people **65 years of age and older**, people at **high risk** from flu and its complications, **household contacts** of these groups, **health care workers**, and **children under 9** getting the flu shot for the first time. To make sure these people have access to available vaccine, others should wait until November.

5

Some people should talk with a doctor before getting influenza vaccine.

Talk with a doctor before getting a flu shot if you:

- 1) ever had a serious allergic reaction to **eggs** or to a **previous dose of influenza vaccine**
or
- 2) have a history of **Guillain-Barré Syndrome (GBS)**.

If you have a fever or are severely ill at the time the shot is scheduled, you should probably wait until you recover before getting influenza vaccine. Talk to your doctor or nurse about whether to reschedule the vaccination.

6

What are the risks from influenza vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of a vaccine causing serious harm, or death, is extremely small. Serious problems from flu vaccine are very rare. *The viruses in the vaccine have been killed, so you cannot get influenza from the vaccine.*

Mild problems:

- soreness, redness, or swelling where the shot was given
- fever
- aches

If these problems occur, they usually begin soon after the shot and last 1-2 days.

Severe problems:

- Life-threatening allergic reactions are very rare. If they do occur, it is within a few minutes to a few hours after the shot.
- In 1976, swine flu vaccine was associated with a severe paralytic illness called Guillain-Barré Syndrome (GBS). Influenza vaccines since then have not been clearly linked to GBS. However, if there *is* a risk of GBS from current influenza vaccines, it is estimated at 1 or 2 cases per million persons vaccinated . . . much less than the risk of severe influenza, which can be prevented by vaccination.

7

What if there is a moderate or severe reaction?

What should I look for?

- Any unusual condition, such as a high fever or behavior changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

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 doctor, nurse, or health department to report the reaction by filing an Vaccine Adverse Event Reporting System (VAERS) form. Or call VAERS yourself at **1-800-822-7967**, or visit their website at <http://www.vaers.org>.

8

How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- 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

If MMR and varicella vaccines are not given on the same day and are mistakenly given less than the 28-day minimum interval apart, what should be done?

The 2002 *General Recommendations on Immunization* says that if MMR and varicella vaccines are administered not on the same day and less than 28 days apart, the vaccine given second is invalid and should be repeated ≥ 4 weeks after it was initially given. This conservative approach helps assure that an adequate response to both vaccines will be obtained.

Some influenza vaccine comes with a 5/8" needle attached. I thought we were supposed to use a 1-1/2" needle for this IM vaccine in adults.

You're right. For intramuscular injection ACIP recommends the use of a 7/8-1/4" needle for children 12 months to 18 years of age, and a 1-1/2" needle for persons 18 years of age and older. ACIP does not recommend a 5/8" needle for intramuscular injection.

Is influenza vaccine recommended for pregnant women?

The ACIP recommends that because of the increased risk for influenza-related complications, women who will be beyond the first trimester of pregnancy (>14 weeks of gestation) during the influenza season should be vaccinated. Certain providers prefer to administer influenza vaccine during the second trimester (rather than the first) to avoid a coincidental association with spontaneous abortion, which is common in the first trimester, and because exposures to vaccines traditionally have been avoided during the first trimester. Pregnant women who have medical conditions that increase their risk for complications from influenza should be vaccinated before the influenza season, regardless of the stage of pregnancy.

VACCINATE ADULTS! 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 **VACCINATE ADULTS!** 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.

Immunization Action Coalition recommends. . .

"Increasing Adult Immunization Rates: WhatWorks"

More than 30,000 adults die every year from vaccine-preventable diseases!

This interactive CD-ROM program will increase your knowledge about effective ways to provide your adult patients with the vaccines they need.

Developed by the Association of Teachers of Preventive Medicine (ATPM) and CDC, this program is free for the asking and will provide you with continuing education credits (2 CME, 2.3 CNE, and .2 CEU).

To order, visit ATPM at www.atpm.org, call (800) 789-6737, or send an e-mail request to whatworks@atpm.org

Can influenza vaccine be given to people who are receiving chemotherapy?

Yes. Influenza vaccine is inactivated, so it does not pose a risk to immunosuppressed persons, including those receiving cancer chemotherapy. Persons who are immunosuppressed for any reason should receive annual influenza vaccination.

If I give a pneumococcal polysaccharide vaccine to my patient now, how long must I wait before giving the influenza or Td vaccine?

Influenza vaccine and Td may be given at the same time or any time before or after a dose of pneumococcal polysaccharide vaccine. There are no minimum interval requirements between the doses of any inactivated vaccines.

With the recent concerns about bioterrorism, are there data on the duration of immunity from previous smallpox vaccination?

Smallpox vaccine provides nearly 100% protection against smallpox for at least 3 years, and substantial but waning immunity for more than 10 years. The protection provided by smallpox vaccine received 30 or more years ago is uncertain.

Hepatitis A and B

by Linda Moyer, RN, and Stephen Hadler, MD

Are hepatitis A vaccine brands interchangeable?

Yes, a number of studies indicate that the two brands of hepatitis A vaccine are interchangeable.

Will one dose of hepatitis A vaccine protect a person who is unable to receive dose #2 prior to travel to a hepatitis A-endemic country?

The immunogenicity of one dose of hepatitis A vaccine is 94-100%. Immunogenicity is consid-

ered to be equal to efficacy. As long as dose #1 is given at least 4 weeks prior to travel, the person should be protected. The second dose is necessary to assure long-term protection. For both adult formulations, the second dose should be administered 6-12 months after dose #1. If the second dose is delayed, do not start the series over again.

Does being chronically infected with HBV preclude one from becoming a health professional?

No. All health professionals should practice standard precautions! However, there is one caveat concerning HBV-infected health professionals. Those who are HBsAg-positive and HBeAg-positive should not perform exposure-prone procedures (e.g., gynecologic, cardiothoracic surgery) unless they have sought counsel from an expert review panel and been advised under what circumstances, if any, they may continue to perform these procedures. Such circumstances might include notifying prospective patients of the health professional's seropositivity before they undergo exposure-prone invasive procedures. For more information on this issue, see the *MMWR Recommendations and Report* "Recommendations for Preventing Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Patients During Exposure-Prone Invasive Procedures." This document is available at www.cdc.gov/mmwr/preview/mmwrhtml/00014845.htm.

Does giving hepatitis B vaccine to a chronically infected person cause any harm?

No, it will neither harm nor help the person. ♦

Do you have patients who are HBsAg-positive?

They need medical monitoring, including liver cancer screening, 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.

Vaccine Highlights (cont. from p. 2)

infants <6 months who are not eligible for vaccine). Vaccination of all other groups, including all persons aged 50-64, may begin in November (www.cdc.gov/mmwr/pdf/rr5103.pdf). A new influenza Vaccine Information Statement (VIS), dated June 26, 2002, has also been issued and is on IAC's website at www.immunize.org/vis/2flu.pdf. It is also included in this issue of **VACCINATE ADULTS!** on page 10.

Hep A & B vaccine news

On May 10, 2002, CDC published "Sexually Transmitted Diseases Treatment Guidelines 2002" in *MMWR*. The statement includes sections on hepatitis A and B, both of which can be transmitted sexually. CDC recommends that every person seeking treatment for an STD should be considered a candidate for hepatitis B vaccination, and some persons should also be considered for hepatitis A vaccination. To obtain a copy, visit www.cdc.gov/mmwr/pdf/rr5106.pdf

Rubella

On Dec. 14, 2001, "Revised ACIP Recommendation for Avoiding Pregnancy After Receiving a Rubella-Containing Vaccine" was published in *MMWR*. ACIP has now shortened its recommended waiting period in which to avoid pregnancy after receipt of rubella-containing vaccine from 3 months to 28 days. In a review of data on 680 live births from several sources, no cases of congenital rubella syndrome (CRS) were identified among infants born to women who were vaccinated inadvertently against rubella within 3 months of pregnancy or early in pregnancy.

Vaccine safety

On May 30, 2002, the IOM Immunization Safety Committee released its report titled "Immunization Safety Review: Hepatitis B Vaccine and Demyelinating Neurological Disorders." The report concludes that the hepatitis B vaccine does not cause or trigger multiple sclerosis in adults. For a copy of this and other IOM reports, visit www.iom.edu/iom/iomhome.nsf/pages/immunization+safety+review ♦

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. The video comes with presenter's notes, including a skills checklist to help assure that your staff vaccinate correctly.

Order online at www.immunize.org/iztech

Ordering Information

There are three ways to order:

1. Order online at www.immunize.org/iztech
2. Complete this form and fax your order to (651) 647-9131.
3. Complete this form and mail to: **Immunization Action Coalition, 1573 Selby Ave., Ste. 234, St. Paul, MN 55104**

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

(Please minimize use of abbreviations and print clearly.)

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 Organization: _____ Dept: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Telephone: (____) _____ E-mail: _____

Make checks or money orders payable to: **Immunization Action Coalition**

Method of payment: Check enclosed Purchase order # _____

Exp. date _____ Visa Mastercard Am. Express Discover

Card #

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

Immunization Action Coalition Needs Your Support!



Deborah L. Wexler, MD
IAC Executive Director

Dear Friends,

This is an unusual time for IAC. During 2002 we experienced significant cutbacks from two of our industry partners due to their companies' new restrictions on how funds are allocated externally. As a result of these cutbacks, the circulation of this issue of *VACCINATE ADULTS!* has been reduced.

For more than a decade, IAC has been producing, and distributing free of charge, quality publications such as *VACCINATE ADULTS!*, *NEEDLE TIPS*, *VACCINATE WOMEN*, *IAC EXPRESS* (our email news service), brochures, and information sheets, all of which we also make available for download-

ing over the Web. We are determined to continue this record of creating free, widely distributed, practical immunization materials.

Up until this time we have been fortunate enough to operate on the principle that if we do excellent and needed work, there will be support for our projects. And for 10 years we have received generous support from individuals, corporations, charitable foundations, and government agencies. We continue to be deeply grateful to all of you for your role in what we do.

But now we must seek out new and increased areas of support. And we are asking for your special help. Here are some ways you may be able to assist us:

- **Send us a contribution.** All donations to IAC are tax-deductible. Donations of any amount are welcome, but with a donation of \$60 or more, you'll receive all our camera-ready, copyright-free print materials.
- **Order from our catalog (page 15).** Some of our most popular items include the video *Immunization Techniques: Safe, Effective, Caring* for \$15; a box of our new Adult Immunization Record Cards for \$25; and our *Photo Notebook of Vaccine Preventable Diseases* for \$75.
- **Make a pledge to CFC.** If you are a federal employee, in the fall you can donate to IAC through the Combined Federal Campaign (CFC). **IAC's CFC number is 9887.** Please write it down now and remember us this autumn when it's time to designate charities of your choice.

- **Send us a corporate contribution.** If your company or workplace can make a direct contribution to IAC, please ask the person in charge of corporate giving to contact me directly. IAC is a well-run organization that spends its funds efficiently. Our IRS Form 990 is available online at www.guidestar.org for those who are interested.
- **Partner with us.** Recently United Health Foundation (UHF) partnered with IAC to send individual copies of IAC's "Summaries of Recommendations for Immunization" and "Screening Questionnaires for Contraindications to Vaccination" to approximately 150,000 physicians throughout the nation. We are grateful to UHF for their generous help in making our materials available to such a wide audience. If your company or organization might be capable of supporting a project like this, please let me know.
- **Order bulk copies.** Corporations and health plans can benefit from distributing IAC materials directly to their customers or clinicians. A copy of the video *Immunization Techniques: Safe, Effective, Caring* should be available in every medical office's teaching materials library to train and update staff on vaccine administration techniques. Please contact me to discuss special materials such as padded forms, adult record cards, videos, slide sets, photo notebooks, and posters that we could make available to you for bulk distribution.
- **Tell us about available grants.** If your organization, whether private or government, has a grant program that could support our work, please let me know whom I should contact in order to apply.

Finally, I want to express the heartfelt appreciation of all of us here at the Coalition for the long-standing and generous support that we have received from you. We look forward in the days ahead to doing even more together to increase immunization rates and prevent disease.

Sincerely,

Deborah L. Wexler, M.D.

Executive Director

Phone: (651) 647-9009

Email: deborah@immunize.org



**To contribute
to IAC, use
the enclosed
envelope.**

Thank you to CDC!

CDC provides invaluable technical support as well as two federal grants.

Thank you to our partners for their educational grants:

- American Pharmaceutical Association
- Aventis Pasteur
- Bayer Biologicals

- Chiron Vaccines
- GlaxoSmithKline
- Mark & Muriel Wexler Foundation
- Medical Arts Press
- Merck & Co.
- Wyeth Lederle Vaccines

Thank you, readers!

We appreciate your financial support.

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

Immunization Action Coalition *VACCINATE ADULTS!*

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