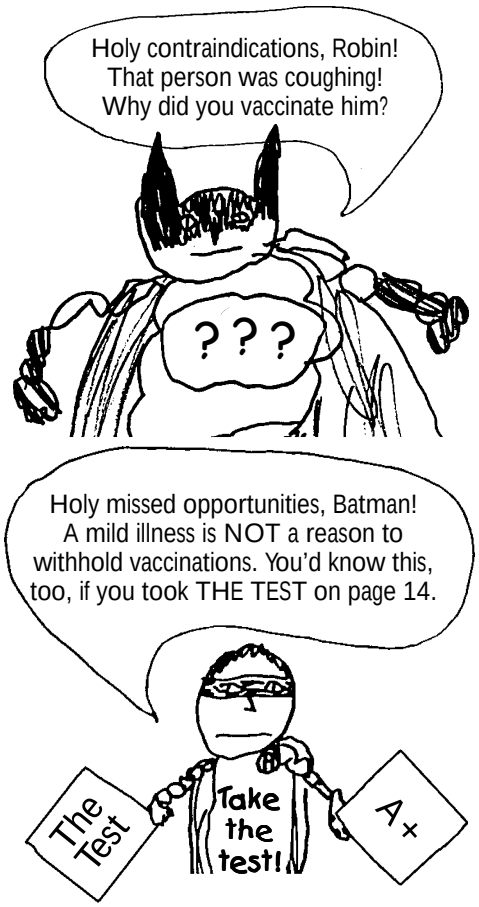
Volume 8 - Number 2 Fall/Winter 1998-1999

NEEDLE TIPS

& the Hepatitis B Coalition News

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



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A $50 annual membership will help support the Coalition plus we'll send you a huge packet of all our printed materials, too! 28

Ask the Experts

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

Questions for the experts?

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

General vaccine questions

by William L. Atkinson, MD, MPH

When the expiration date of a vaccine indicates a month and year, does the vaccine expire on the first or last day of the month?
Vaccine may be used through the last day of the month indicated on the expiration date.

Should multidose vials of vaccine (DTaP, Td, Hib, etc.) be disposed of after they have been opened for 30 days?
No. These vaccines contain a bacteriostatic agent and may be used until the expiration date unless they become contaminated.

Is it "legal" to draw up vaccines at the beginning of the shift? If it isn't, how much in advance can this be done?
The Advisory Committee on Immunization Practices (ACIP) recommends against pre-drawing vaccine into syringes, primarily because of the increased possibility of administration and dosing errors. Many vaccines look alike after drawing into a syringe. In addition, some vaccines have a very limited shelf life after reconstitution. In particular, varicella vaccine must be administered within 30 minutes of reconstitution, and MMR must be administered within 8 hours.

If you decide to pre-draw syringes, I would strongly suggest that you draw up only inactivated vaccines (hepatitis B, DTaP, IPV, Hib), and only enough for a single day's use. Make sure the syringes are clearly marked to avoid administration errors. Pre-drawn doses should be kept refrigerated. Live injected vaccines (MMR and varicella) should not be pre-drawn.

When giving two IM injections in the same limb, what is the minimum spacing between the two injection sites?
The vaccines should be separated by at least one inch in the body of the muscle so that any local reactions are unlikely to overlap.

(continued on page 14)

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NEEDLE TIPS

"To keep at your fingertips"

Immunization Action Coalition
Hepatitis B Coalition

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NEEDLE TIPS is a semi-annual publication of the Immunization Action Coalition. Everything herein is reviewed by the Centers for Disease Control and Prevention for technical accuracy (unless it is an opinion piece written by a non-CDC author). *NEEDLE TIPS* is written for physicians, nurses, and other health professionals in the public and private sectors. Circulation is now 200,000.

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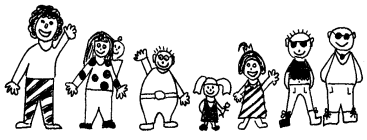
The Immunization Action Coalition (IAC), a 501(c)3 nonprofit organization, works to boost immunization rates. IAC promotes physician, community, and family awareness of, and responsibility for, appropriate immunization of all people of all ages against all vaccine-preventable diseases.

The Hepatitis B Coalition, a program of the Immunization Action Coalition, 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 who are chronically infected with hepatitis B.

Join the Coalition!

Please become a member for 1999. Your membership contribution will be used to continue providing you with *NEEDLE TIPS,* a publication full of excellent information and resources. See the back page for details about how to join.



Letters to the Editor ...

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

Senator Wellstone wishes IAC well

I want to take this opportunity to let you know that I think the Immunization Action Coalition is doing a wonderful job. *NEEDLE TIPS* is such a great publication. I think it is a valuable resource for those who care about vaccine-preventable diseases. I especially enjoy the artwork. You have very talented artists.

I wish the Immunization Action Coalition continued success. You should be very proud of your accomplishments. My best to everyone at the Immunization Action Coalition.

—Paul Wellstone
United States Senator, Minnesota

Doctor discusses deadly diseases

The new vaccine against varicella is an important adjunct to our preventive medicine armamentarium and merits complete implementation. However, a statement in the *MMWR* (5/15/98) – "Varicella is the leading cause of vaccine-preventable deaths in children in the United States" – needs qualification. I am sure that the authors of that statement were referring to "routinely recommended childhood vaccinations" and were not considering vaccines which are routinely recommended for high-risk children. In fact, more children die of influenza and/or pneumococcal disease each year than varicella disease.

This fact reveals a disconnect in programs for "routine childhood" immunization and "adult" immunization that I hope will disappear. I think that these are artificial distinctions that do not enhance coverage overall. Both influenza and pneumococcal vaccines are presently covered by the Vaccines For Children program for use in eligible high-risk children; however, immunization rates are low as they also are for high-risk adults <65 years of age.

Programs for delivery of vaccines need to be integrated to improve delivery to all segments of the population. Vaccine registries in place for many of the vaccines administered to young children should have use extended to high-risk persons of all ages. These registries can be used to send yearly notices and reminders for influenza vaccine to all high-risk patients and to improve pneumococcal vaccine coverage as recommended.

Influenza has not gone away! In fact, the pneumonia and influenza mortality from the 122 cities indicates that last year was one of the worst epidemics in recent years (*Influenza summary update,* US,1998, for week ending 4/25/98). We need to double efforts to distribute influenza vaccine to all high-risk groups.

Dr. Greg Poland, chief of Mayo Clinic Vaccine Research Group, reminded your readers last year (*NEEDLE TIPS,* fall/winter 1997–98) of some of the groups often overlooked. As the influenza season approaches, we should note these again:

"The ACIP now recommends that pregnant women who will be beyond the first trimester of pregnancy (14 weeks) during influenza season should receive influenza vaccine. The recommendation also states that pregnant women who have medical conditions that increase their risk of complications from influenza should be vaccinated before the influenza season regardless of their stage of pregnancy.

"Children with asthma also need to be vaccinated against influenza and are often overlooked. Respiratory illnesses in asthmatic children can trigger prolonged asthmatic illnesses, steroid use, hospital stays, loss of the parents' time from work, and loss of the child's school time. Please remind parents to bring children in for vaccination, and, as recommended, vaccinate all of the child's family members as well."

—W. Paul Glezen, MD
Professor and Head, Preventive Medicine Section
Baylor College of Medicine

Writer says website wonderful

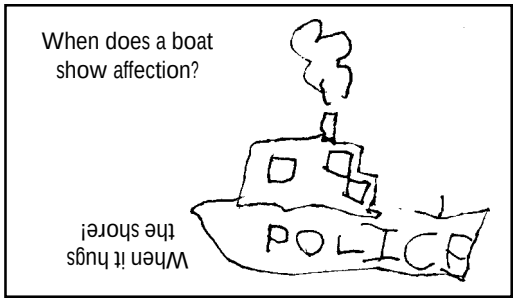
Just a quick note to let you know how terrific your website is! Your site provides a tremendous amount of information, and is very well laid out. For your information, I heard about your website at a CDC satellite broadcast on immunization. I have spread the good word about your site to our public health clients, as I am sure that they will find it a wonderful resource. Thanks so much for your hard work.

—Susan Cumming
Provincial Laboratory of Public Health
Edmonton, Alberta, Canada

Ed. note: Visit IAC's website at www.immunize.org

Welcome new board member!

Stanley A. Gall, MD, obstetrician-gynecologist, is Donald E. Baxter Professor and Chairman, Department of Obstetrics/Gynecology, School of Medicine, at the University of Louisville. Dr. Gall, president of the Infectious Disease Society for Obstetrics/Gynecology, is also a member of the Residency Review Committee for Obstetrics/Gynecology and serves as American College of Obstetrics/Gynecology's liaison to the Advisory Committee on Immunization Practices. Dr. Gall, a prolific author on infectious diseases in pregnant women, reviews national vaccine recommendations for pregnant women. Dr. Gall received his medical degree from the University of Minnesota. ♦

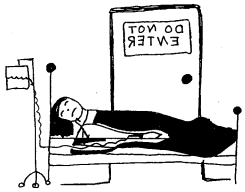


Vaccinate, don't vacillate!

Varicella kills 100 people each year in the U.S. What are you waiting for?

By Walter A. Orenstein, MD, Assistant Surgeon General, Director, National Immunization Program, Centers for Disease Control and Prevention

Each year in the United States almost 4 million persons suffer from varicella, more than 10 thousand are hospitalized, and approximately 100 die. While the risks of complications from varicella are highest in adolescents and young adults, the burden of disease is greatest among children who suffer 90 percent of the cases, two-thirds of the hospitalizations, and almost half of the deaths that occur each year in the United States. On average, one child dies each week from this disease and most of those children are healthy at the time they contract varicella. Additionally, children are the group that serve as the primary source of transmission of varicella to groups at higher risk for severe disease, including adults and persons who are not eligible for vaccination. Complications from varicella include soft tissue infections, necrotizing fasciitis, pneumonia, cerebellar ataxia, and encephalitis. The licensure of varicella vaccine in 1995 offered the opportunity to prevent this substantial health burden.



Every year in the United States more than 10,000 people are hospitalized due to varicella infection.

Varicella vaccine is 70 to 90 percent effective against typical varicella disease and more than 95 percent effective against severe disease. Most persons who develop varicella who have previously been vaccinated tend to have very mild illness with fewer than 50 skin lesions compared to 200–500 skin lesions in a typical unvaccinated case. Despite the proven efficacy of varicella vaccine, vaccination rates have been low. In 1997, only 26 percent of 19- through 35-month-old children (median age 27 months) had received a dose of varicella vaccine. This compares with rates of over 90 percent for most of the vaccines routinely recommended for children. What are the reasons that rates are low?

First, persons have been concerned about the duration of immunity. Available evidence indicates immunity to varicella should be long term, probably life long. There is no evidence of increasing rates of break-through infections over time and no evidence of break-through infections becoming more severe with increasing time since vaccination. The great majority of persons who develop illness with a past history of vaccination tend to have very mild disease. Ongoing studies are monitoring vaccine-induced immunity as disease incidence declines to determine the need for an additional dose in the future.

Second, concerns have been raised that varicella vaccine might cause herpes zoster (shingles) in the future. Current data show the rate of zoster after vaccination is lower than expected after natural infection. While vaccine virus has been cultured from persons with shingles, wild virus appears to be much more likely to cause shingles. Thus, vaccine will probably reduce the incidence of shingles.

Third, there has been concern that vaccine virus may be transmitted to other individuals who might come down with serious varicella illness. Transmission of vaccine virus from healthy vaccinees has been documented only very rarely, and only when a rash occurs post-vaccination (one published case in 11 million doses distributed). Three to five percent of persons develop rashes, although these data are from non-placebo controlled trials. The risk of transmission is more than outweighed by the great benefits provided by vaccine. The best way to protect persons at high risk for severe disease (especially those not eligible for vaccine) is to vaccinate their close contacts.

Fourth, questions have been raised regarding whether the disease is serious enough to warrant prevention. As detailed above, the health burden of varicella is significant. In addition, there are substantial costs related to caring for children with varicella, both in terms of direct medical care costs as well as indirect costs associated with missing work. A cost-benefit analysis of varicella vaccine has indicated that the vaccine saves society more than five dollars for every dollar spent on a varicella vaccination program.

What are the risks of not vaccinating? Taking this risk allows a child to grow up in a partially vaccinated population with less chance of exposure to varicella during childhood. As an adult, the risks of complications from varicella in an unvaccinated person are much greater than the risks in childhood. A uniformly high vaccination rate will assure both adults and children are protected from varicella and its complications. Varicella vaccine is strongly recommended by the Advisory Committee on Immunization Practices, the American Academy of Pediatrics, and the American Academy of Family Physicians. The Centers for Disease Control and Prevention (CDC) urges you to provide varicella vaccine to your susceptible children, adolescents, and adults to reduce the needless health burden of chickenpox.

For detailed information on varicella and varicella vaccine from the National Immunization Program, CDC, go to www.cdc.gov/nip/clinqa/var.htm ♦

Vaccine highlights

Latest recommendations and schedules

The next ACIP meetings...

Editors' note: The information on this page is current as of October 1, 1998.

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 February 17–18, 1999, and June 16–17, 1999.

The latest ACIP statements

ACIP statements. No clinic should be without a set of these public health recommendations on vaccines, which are published in the *MMWR*. 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 (phone numbers on page 23).
- Request them from your medical library.
- Call 617/893-3800 to subscribe to the *MMWR*.

Following are the ACIP statements released in 1998:

- *Prevention and Control of Influenza (5/1/98)*
- *Measles, Mumps, and Rubella – Vaccine Use and Strategies for Elimination of Measles, Rubella, and Congenital Rubella Syndrome and Control of Mumps (5/22/98)*

Influenza news

On May 1, 1998, *MMWR* published ACIP's updated statement, "Prevention and Control of Influenza," for the 1998–99 influenza season. This statement, published every spring, reviews recommendations for the use of influenza vaccine such as which children and adults should be given influenza vaccine, when it should be administered, who needs more than one dose, vaccine side effects, antiviral treatment for influenza, etc.

The 1998–99 Vaccine Information Statement (VIS) for influenza vaccine can be downloaded from the National Immunization Program's website: www.cdc.gov/nip/pdf/2flu.pdf or obtained by calling your state immunization program manager (phone numbers are on page 23).

Measles, mumps, rubella news

On May 22, 1998, *MMWR* published "Measles, Mumps, and Rubella–Vaccine Use and Strategies for Elimination of Measles, Rubella, and Congenital Rubella Syndrome and Control of Mumps," in *Recommendations and Reports.* This statement supersedes previous ACIP recommendations on this topic published in 1989 and 1990. Some of the specific new recommendations in this statement include the following: elimination of egg allergy as a contraindication to administering MMR vaccine; change in the recommended timing of the two doses of MMR to 12–15 months for the first dose and 4–6 years of age for the second dose; a recommendation that all persons who work in health care facilities have acceptable evidence of measles and rubella immunity; clarification of the role of serologic screening to determine immunity; modification of the definition of rubella immunity; and much more.

Hepatitis B news

On Sept. 4, 1998, the *MMWR* published an article entitled, "Effectiveness of a Seventh Grade School Entry Vaccination Requirement – Statewide and Orange County, Florida, 1997–1998." One of the findings in this report indicates that a middle school vaccination entry requirement in Florida was effective in ensuring that most seventh grade students were appropriately vaccinated after the law was enacted. Also included in the editorial note to the article is the *MMWR's* first published reference to the 1997 ACIP expanded hepatitis B vaccination recommendation. The *MMWR* states: "In 1997, ACIP revised its recommendations to include all persons 0–18 years of age."

On August 27, 1998, Merck Vaccine Division discontinued the production and distribution of its 2.5mcg pediatric dose of Recombivax HB. Children who were initiated with the 2.5mcg dose do not need to be revaccinated and may complete the vaccine series with either the 2.5mcg or 5mcg Recombivax HB dose.

On August 13, 1998, the FDA approved a supplemental product license application of SmithKline Beecham's Engerix-B vaccine for use in patients with hepatitis C virus infection. Engerix-B is one of two hepatitis B vaccines licensed for use in the United States. The other is Recombivax HB, which is manufactured by Merck & Co. Either vaccine is appropriate for preventing hepatitis B virus infection in groups at risk, including patients with HCV infection who have risk factors for hepatitis B virus infection. Clinicians should evaluate their patients to determine their need for hepatitis B vaccine.

On August 18, 1998, Intron A, interferon alfa-2b, recombinant, was approved by the FDA for use in children one year of age or older for the treatment of chronic hepatitis B virus infection. Intron A is manufactured by Schering-Plough Corporation.

Hepatitis A news

On September 4, 1998, the *MMWR* published an article entitled, "Hepatitis A Vaccination of Men Who Have Sex with Men – Atlanta, GA, 1996–1997." This report summarizes the investigation of an ongoing outbreak of hepatitis A in men who have sex with men (MSM) in Atlanta, GA, and discusses the public health campaign implemented to respond to the outbreak. If you are planning a hepatitis A education and vaccination program for MSM, this is an important and helpful article for you to read. (In 1995, the ACIP recommended hepatitis A vaccine for all MSM.)

(continued on page 5)

DTaP news

On August 12, 1998, the U.S. Public Health Service and the Food and Drug Administration issued a joint statement reminding health professionals that DTaP/Hib combined vaccines are not licensed for the primary series (first 3 doses). In the event that an infant has received an unlicensed DTaP/Hib combination product, the health professional should call CDC's Immunization Hotline at 800/232-2522 as to what further immunization actions may be required. *(Ed. note: see page 15, under Hib for more details.)*

On July 29, 1998, FDA approved North American Vaccine's product license application for Certiva, a DTaP vaccine. Certiva is indicated for the immunization of children 6 weeks through 6 years of age.

Tetanus news

On July 3, 1998, the *MMWR* published "Tetanus Surveillance - United States, 1995–1997" in *Surveillance Summaries*. Included in this report was the following information: "From 1995–1997, a total of 124 cases of tetanus were reported from 33 states and the District of Columbia, accounting for an average annual incidence of 0.15 cases per 1,000,000 population. Sixty percent of patients were aged 20–59 years; 35 percent were ≥ 60 years; and 5 percent were aged less than 20 years, including one case of neonatal tetanus. For adults aged ≥60 years, the increased risk for tetanus was nearly sevenfold that for persons aged 5–19 years and twofold that for persons aged 20–59 years."

Varicella news

On May 15, 1998, the *MMWR* published an article on three fatal cases of varicella (chickenpox) that occurred in children during 1997. Also discussed in this article are the national coverage levels for varicella vaccination among children aged 19–35 months (26% during Jan.–Dec. 1997); barriers to the use of varicella vaccine; the importance of varicella surveillance; and information to encourage health professionals to increase their efforts to routinely vaccinate and "catch-up" children who need to be protected against varicella.

Ed. note: These three case histories as well as two others reported by the Michigan Department of Community Health in 1997 are reprinted on page 13 of this issue of NEEDLE TIPS.

How does the man in the moon cut his hair?

Eclipse it!

Rotavirus vaccine news

On August 31, 1998, the FDA approved a license application for RotaShield, a live, oral, tetravalent rotavirus vaccine manufactured by Wyeth Laboratories. RotaShield is indicated for the prevention of gastroenteritis caused by those rotavirus serotypes contained in the vaccine. The recommended dosing schedule for oral immunization with RotaShield is 2, 4, and 6 months of age. Initiation of vaccination after 6 months of age is currently not recommended.

1999 Childhood IZ schedule

The "1999 Childhood Immunization Schedule" is expected to be released and published by ACIP, AAP, and AAFP in January 1999 in their official publications. Make sure you have a copy. After Jan 1, 1999, you can obtain a copy from the National Immunization Program at www.cdc.gov/nip/ or by calling CDC's Immunization Hotline 800/232-2522.

VFC coverage expands for '99

In 1999, children 1 through 16 years of age will be eligible to receive varicella vaccine. (In 1998, VFC covered children 1 through 15 years of age.)

The children's age ranges for some of the other VFC vaccines remain the same and are as follows:

- Children 1 through 18 years of age are eligible to receive two doses of MMR vaccine.
- Children 0 through 18 years of age are eligible to receive three doses of hepatitis B vaccine.
- Children 11 through 18 years of age are eligible to receive a Td vaccine booster if at least 5 years have elapsed since the previous dose.

NOTE: Some states have used state funding to expand these age limits. Check with your state immunization program (phone numbers on page 23).

Vaccine safety news

On August 21, 1998, the National Multiple Sclerosis Society released its official position paper on hepatitis B vaccine. The paper entitled, "Hepatitis B Vaccine and Multiple Sclerosis," states, "There is no evidence of a link between hepatitis B vaccination and MS." The paper was written in response to the media attention that has been drawn to anecdotal reports suggesting that vaccination against hepatitis B virus may increase the risk for developing multiple sclerosis. For a complete copy of the report, visit: www.nmss.org or call 800/344-4867 and press #1 to reach your local MS Society.

Two separate panels of experts were convened to address allegations that certain childhood vaccines administered in the currently recommended schedule might increase the risk of Type 1 diabetes. One panel was convened on March 20, 1998, by the Institute for Vaccine Safety, Johns Hopkins School of Public Health, and the other was convened on May 14-15, 1998, by the National Institute of Allergy and Infectious Diseases. Both panels of experts concluded that there is no evidence for any increased risk of diabetes associated with childhood vaccines.

On April 27, 1998, ABC News affiliates in several U.S. cities aired a story that raised concerns about hepatitis B vaccine causing chronic illnesses (such as multiple sclerosis, autoimmune disorders). As a result, CDC has developed a fact sheet called "Hepatitis B vaccine: what you may have heard... and what you should know." You may obtain a copy at www.cdc.gov/nip/hepb43098.htm In addition, "Hepatitis B vaccine questions and answers" provides more extensive information about hepatitis B vaccine. You may obtain a copy at: www.cdc.gov/ncidod/diseases/hepatitis/b/hebqafn.htm

Reminder/recall news

On September 4, 1998, the *MMWR* published a *Notice to Readers* entitled, "Recommendations of the ACIP, the American Academy of Pediatrics, and the American Academy of Family Physicians: Use of Reminder and Recall by Vaccination Providers to Increase Vaccination Rates." This statement presents and recommends the use of a reminder and/or recall system by vaccination providers to increase vaccination rates. ♦

CDC presents via satellite:

"Surveillance of Vaccine-Preventable Diseases"

With William L. Atkinson, MD, MPH, and Melinda Wharton, MD, MPH

Thurs., Dec. 3, 1998, 12 noon–3:30pm EST

- Designed to provide guidelines for VPD surveillance, case investigation and outbreak control.
- Physicians, infection control practitioners, nurses, epidemiologists, laboratorians, sanitarians, disease reporters.

For more information, call your state immunization program (see phone numbers on page 23).

It's federal law!!

You must give your patients current Vaccine Information Statements (VISs)

A recent vaccine complication *in Florida highlights the importance of distributing the most recent VIS to your patients. In 1997, a 3-month-old boy developed vaccine-associated paralytic poliomyelitis (VAPP) following a first dose of OPV. The boy's parents report that their physician furnished them with the 1994 polio VIS at the time of vaccination. The polio VIS had been revised in 1997 to reflect the ACIP preference for sequential use of inactivated polio vaccine (IPV) followed by live polio vaccine (OPV) which made the 1994 polio statement that was given to the parent outdated.*

This article was written by Neal A. Halsey, MD, Director, Institute for Vaccine Safety, Johns Hopkins School of Public Health.

As readers of *NEEDLE TIPS* understand, the risks of serious consequences following vaccines are many hundreds or thousands of times less likely than the risks following the diseases that the vaccines protect against. Most adverse reactions from vaccines are mild and self-limited. Serious complications such as the one in the Florida case, are rare, but they can have a devastating effect on the recipient, family members, and the providers involved with the care of the patient. We must continue the efforts to make vaccines as safe as possible.

Equally important is the need to furnish vaccinees (or the parents/legal guardians of minors) with objective information on vaccine safety and the diseases that the vaccines protect against so that they are active participants in decisions affecting their health or the health of their children. When people are not informed about vaccine adverse events, even common, mild events, they can lose their trust in health care providers and vaccines. Vaccine Information Statements (VISs) provide a standardized way to provide objective information about vaccine benefits and adverse events.

What are VISs?

VISs are developed by the staff of the Centers for Disease Control and Prevention (CDC) and undergo intense scrutiny by panels of experts for accuracy. Each VIS provides information to properly inform the adult vaccinee or, in the case of a minor, the child's parent or legal representative about the risks and benefits of each vaccine.

"We have an obligation to provide patients and/or parents with information that includes both the benefits and the risks of vaccines. This can be done with the Vaccine Information Statements that physicians are required by law to provide prior to the administration of vaccines."

Walter A. Orenstein, MD, Director
National Immunization Program,CDC

The VISs are not meant to replace interactions with health care providers who should answer questions and address concerns that the vaccinee or the parent/guardian may have.

Use of the VIS is mandatory!

Before a health care provider vaccinates a child or an adult with a dose of DTaP, DTP, Td, MMR, varicella, polio, Hib, or hepatitis B vaccine, the provider is required by the National Childhood Vaccine Injury Act to provide a copy of the VIS to either the adult vaccinee or to the child's parent/legal guardian. The use of the VIS has been required since 1994.

VISs are also available for influenza, pneumococcal, and hepatitis A vaccines, and their use is recommended but not required by federal law. They are not required because these additional vaccines are not routinely recommended for children and therefore are not covered by the National Childhood Vaccine Injury Act.

State or local health departments or individual providers may place identifiers on the VISs but any other changes must be approved by the Director of CDC's National Immunization Program.

What to do with the VISs

Some of the legal requirements concerning the use of VIS are as follows:

1. Before a routine childhood vaccine is administered to anyone (this includes adults!) you must give the patient or the parent/guardian a copy of the most current Vaccine Information Statement (VIS) available for that vaccine. Make sure you give your patient time to read the VIS prior to the administration of the vaccine.
2. You must record in your patient's chart the date that the VIS was given.
3. You must also record on the patient's chart the publication date of the VIS, a date which appears on the bottom of the VIS. As the Florida case above illustrates, it is imperative that you have the most current VIS.

Institute for Vaccine Safetv

Johns Hopkins University

The Institute for Vaccine Safety is committed to investigating vaccine safety issues and providing timely and objective information on vaccine safety to health care providers, journalists, and parents. Visit their website at www.vaccinesafety.edu

Most current versions of VISs

As of October 1998, the most recent versions of the VISs are as follows:

DTaP/DT/DTP	8/15/97	MMR	6/10/94*
Td	6/10/94	varicella	2/1/96*
polio	2/6/97	Hib	5/1/96*
hepatitis A	8/25/98	hepatitis B	5/1/96*
pneumococcal	7/29/97	influenza	7/1/98

* revision expected November/December 1998.

How to get VISs

VISs are available from state and local health departments or can be downloaded from CDC's website: www.cdc.gov/nip/vistable.htm You can also order a set of VISs or individual VISs by calling CDC's Immunization Hotline at 800/232-2522, but it takes 4–6 weeks to process your order.

Foreign language versions of VISs are not officially available from the CDC. However, several states make VISs available in non-English versions. These versions do not require approval from CDC.

Looking for translations? Call your state health department before you do any of the following:

- California's Immunization Branch distributes VISs (except influenza and pneumococcal) in 14 different languages. Call Maria Clarke at 510/849-5042 to order them. You can also download California's Spanish language VISs from the Immunization Action Coalition's website at www.immunize.org
- The Minnesota Department of Health distributes influenza and pneumococcal VISs in Spanish, Cambodian, Hmong, Vietnamese, Laotian, Russian, and Somali. You can download them at www.health.state.mn.us/divs/dpc/adps/adps.htm or call 612/676-5237. ♦

The most current version of the polio VIS is on pages 7–8. Copy and use it. It's the law!

POLIO VACCINES

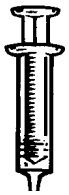
WHAT YOU NEED TO KNOW

1 Why get vaccinated?

Polio is a disease. It can paralyze (make arms and legs unable to move) or even cause death.

Polio vaccine prevents polio. Before polio vaccine, thousands of our children got polio every year. Polio vaccine is helping to rid the world of polio. When that happens, no one will ever get polio again, and we will not need polio vaccine.

2 There are 2 kinds of polio vaccine.



IPV
Inactivated Polio Vaccine
A shot

OPV
Oral Polio Vaccine
Drops by mouth

Both vaccines work well.

3 Which vaccines should my child get and when?

Most children should get 4 doses of polio vaccine at these ages:

- 2 months
- 4 months
- 12- 18 months
- 4-6 years

You can choose to get any of these 3 acceptable schedules:

★ 2 shots of IPV, then 2 doses of OPV drops
OR
★ 4 shots of IPV
OR
★ 4 doses of OPV drops (the 3rd dose can be given as early as 6 months of age)

The Centers for Disease Control and Prevention (CDC) recommends 2 shots of IPV, then 2 doses of OPV drops for most children because this has the advantages of both vaccines.

4 What are the risks and advantages of each choice?

Almost all children who complete any of the 3 schedules will be protected from polio.

As with any medicine, vaccines carry a small risk of serious harm, such as a severe allergic reaction (hives, difficulty breathing, shock) or even death.

On rare occasions, OPV can cause polio because it contains live, but weakened, virus. IPV cannot cause polio because it does not contain live virus.

Most people have no problems from either IPV or OPV.

2 Shots/2 Drops (2 IPV, then 2 OPV)

Risks and Advantages

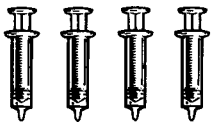
For most children, the choice using both shots and drops gives the benefits of both vaccines:

risk of getting polio than from all OPV

• Only 2 shots

* Protects the community from polio outbreaks better than all IPV

All Shots (4 IPV)



Risks

* Mild soreness of arm or leg

Other Disadvantages

*Not as good as OPV for protecting the community from polio outbreaks

Advantages

*Does not cause polio

All Drops (4 OPV)

Risks

- Causes about 8 cases of polio each year. (At least 15 million doses have been given each year in the U.S.) This can happen to children who get OPV or people who are in close contact with them. The risk of polio is higher with the first dose than with later doses.

Advantages

* No shots

• Can best protect the community from polio outbreaks

5 Some children should get only shots. And some should get only drops.

Do NOT use OPV drops, if your child, you, *or* anyone who *takes care of your child*

- Can't fight infections
- Is taking long term steroids
- Has cancer
- Has AIDS or HIV infection

Do NOT use OPV drops, if you *or anyone who takes cure of your* child never had polio vaccine.

Do NOT use IPV shots, if your child is allergic to the drugs neomycin, streptomycin, or polymyxin B.

6 Some children should not get these vaccines or should wait.

Tell your doctor or nurse if your child:

- Ever had a serious reaction after getting polio vaccine
- Now has a moderate or severe illness

7 What if there is a serious reaction?

What should I look for?

- See item 4, on the other side, for some possible risks.

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 file a Vaccine Adverse Event Report (VAERS) form, or call VAERS yourself at: l-800-822-7967

8 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program is a federal program that gives payment for serious vaccine injuries.

For details call l-800-338-2382

9 How can I learn more?

- Ask your doctor or nurse. She/he 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 l-800-232-7468 (English)
  OR
  Call l-800-232-0233 (Spanish)
  OR
  Visit the CDC website at **http://www.cdc.gov/nip**

2 Months

4 Months

12-18 Months

4-6 Years

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

What's your state doing?

An empty box in this table indicates that the state answered this question with a "NO."

Here is some current U.S. immunization information

State	% of ≥65 y/o who report receiving influenza vaccine in the past year. (BRFSS* '97)	% of ≥65 y/o who report ever having received pneumo-coccal vaccine. (BRFSS* '97)	Do you have a hepatitis B prenatal screening law?	Do you have any hepatitis B childhood vaccination mandate?	Is there a hepatitis B daycare law? Who is covered &/or what is date of implementation?	Is there a hep B kindergarten &/or 1st grade law? Date of implementation?	Is there a hepatitis B middle school law? Date of implementation?	Are pharmacists authorized to vaccinate?
AL	62.6	47.5						yes
AK	58.3	39.2						yes
AZ	72.9	59.4		yes	yes 97	yes 9/97		
AR	61.1	39.1	yes	yes	yes/born ≥12/91	yes 9/98	yes 9/98	yes
CA	65.5	49.8	yes	yes	yes 97	yes 97	yes 9/99	yes
CO	74.4	53.3		yes	yes 97	yes 97	yes 97	
CT	67.2	43.0		yes	yes/born ≥1/94	yes 9/96		
DE	68.6	52.6		yes		yes 9/99	yes 9/99	yes
DC	54.3	32.3		yes	yes 97	yes 97	yes 97	
FL	62.3	45.5	yes	yes		yes 9/98	yes 97	
GA	58.5	48.5		yes	yes/born ≥1/92	yes 9/97		yes
HI	71.1	51.7	yes	yes	yes 1/98	yes 1/98		
ID	66.4	50.2		yes	yes/born ≥12/91	yes 97		yes
IL	67.8	44.7	yes	yes	yes 10/98		yes 10/98	yes
IN	62.5	38.0		yes		yes 7/99		yes
IA	69.7	51.5		yes		yes 1/99		yes
KS	61.5	43.7	yes	yes		yes 9/99		yes
KY	61.2	38.6	yes	yes	yes/born ≥10/92	yes 8/98		yes
LA	58.4	32.2	yes	yes	yes 98	yes 98		
ME	72.1	50.0						
MD	63.4	41.0		yes	yes 01	yes 01	yes 9/06	
MA	66.0	52.7	yes	yes	yes 96	yes 96	yes 9/99	
MI	63.6	45.6	yes	yes	yes 97	yes 9/00	yes 00	yes
MN	69.0	48.3		yes		yes 9/00	yes 9/01	
MS	61.1	45.9						yes
MO	70.3	44.3	yes	yes	yes/born ≥1/90	yes 9/97	yes 9/99	yes
MT	68.4	50.8						
NE	65.8	49.8						yes
NV	56.5	53.5	yes					
NH	64.6	49.6		yes	yes/born ≥1/93	yes 10/96		
NJ	60.7	33.9						
NM	72.8	50.1		yes	yes 9/00	yes 9/02	yes 9/99	yes
NY	64.5	38.9	yes	yes	yes/born ≥1/95	yes 9/98		
NC	64.6	50.6	yes	yes	yes/born ≥7/94	yes 9/98		
ND	64.8	40.8						
OH	65.4	38.5		yes	yes 8/99	yes 8/99		yes
OK	69.3	40.4		yes		yes 9/97	yes 9/97	yes
OR	69.8	55.9		yes	yes 9/98	yes 9/98	yes 9/00	
PA	65.8	47.1		yes		yes 9/97		
RI	67.7	43.0						
SC	74.3	41.6		yes	yes/born ≥1/92	yes 9/98	yes 9/98	yes
SD	65.6	40.6						yes
TN	69.1	45.0	yes	yes	yes/born ≥9/97	yes 7/99		yes
TX	68.0	44.4		yes	yes/born ≥9/92	yes 9/98		yes
UT	66.1	48.5		yes	yes 7/99	yes 7/99		
VT	69.5	51.6		yes			yes 9/99	
VA	67.7	53.6		yes	yes/born ≥1/94	yes 9/99		yes
WA	70.3	51.6		yes	yes 9/97	yes 9/97		yes
WV	58.2	41.3						
WI	66.1	42.6		yes	yes 97	yes 97	yes 97	yes
WY	72.4	50.9		yes	yes/born ≥1/96	yes 9/99	yes 9/98	

* BRFSS = Behavioral Risk Factor Surveillance System which uses random-digit-dialed telephone survey of U.S. adults to gather data. *(MMWR* 10/2/98)
NOTE: If you find an error or have an update, please contact *NEEDLE TIPS & the Hepatitis B Coalition News* at 651/647-9009.

Vaccinations for Adults with Hepatitis C Virus Infection

Adults who are infected with hepatitis C virus (HCV) need to make sure they're fully vaccinated. Seventy percent of people who are infected with HCV have chronic liver disease. People with chronic liver disease have special vaccination needs including pneumococcal vaccine and hepatitis A vaccine. Getting immunized is a lifelong, life-protecting job. Make sure you and your health care professional keep your shots up-to-date! Don't leave your clinic without making sure that you've had all the shots you need.

Hepatitis A*	Hepatitis A vaccine is recommended for people with chronic liver disease. It is also recommended before travel to certain countries. Some of the ways you can get hepatitis A are from contaminated food or water, or illegal drug use. The best way to protect yourself from hepatitis A is by vaccination. Talk to your doctor.			
	first dose now		second dose 6-12 months later	
Hepatitis B*	A person who has hepatitis C can still get hepatitis B. Forty percent of people who contract hepatitis B do not know how they contracted the disease. Some of the risk factors include sex, sharing needles, sharing toothbrushes, being a health care worker. The best way to protect yourself from hepatitis B is through vaccination. Talk to your doctor.			
	first dose now	second dose one month later	third dose is usually given five months after the second dose	
Pneumococcal	The pneumococcal vaccine is recommended for all people ages 2 and older who have chronic liver disease or certain other chronic illnesses. It is also recommended for all persons who are age 65 or older. Some individuals with particular health risks will need a one-time revaccination dose 5 years later or at age 65. Consult your doctor.			
Influenza "flu shot"	Influenza can result in serious illness or complications. The "flu shot" is recommended every fall for people age 65 or older. While the vaccine is not specifically recommended for persons with chronic liver disease, it can be given to any person (regardless of age) who wishes to reduce the likelihood of becoming ill with influenza. Influenza vaccine is also recommended for women who will be in their 2nd or 3rd trimester of pregnancy during "flu" season; residents of long-term care facilities; and anyone who has a medical problem such as heart or lung disease (including asthma), diabetes, kidney disease, or an immune system weakened by disease or medication; and for those who work with or live with any of these individuals.			
Tetanus, **diphtheria** (Td) often referred to as "tetanus shot"	If you haven't had at least 3 basic tetanus-diphtheria shots in your lifetime, you need to complete the series listed below:			All adults need a booster dose every 10 years
	first dose now	second dose 4 weeks later	third dose 6-12 months after the second dose	
Measles, mumps, rubella	One dose of MMR is recommended for people born in 1957 or later if they have not been previously vaccinated. (A second dose of MMR may be required in some work or school settings, or recommended for international travel.) People born before 1957 are usually considered immune.			
Varicella for those who have never had chickenpox	first dose now		second dose 4-8 weeks later	

* In 1997, the NIH Consensus Development Conference recommended that hepatitis A and B vaccines be given to all persons who are infected with hepatitis C virus. To obtain a copy of the NIH Consensus Statement, "Management of Hepatitis C," call 888/644-2667.

** For more information about hepatitis C, call CDC's toll-free hotline at 888/443-7232, the American Liver Foundation at 800/223-0179, or the Hepatitis Foundation International at 800/891-0707.

Item #P4042 (10/98)

Summary of Recommendations for Adult Immunization - side 1

Adapted from the Advisory Committee on Immunization Practices (ACIP) by the Immunization Action Coalition with review by ad hoc team - October 1998

Vaccine name and route	For whom it is recommended	What is the usual schedule?	Schedule for those who have fallen behind	Contraindications and precautions*	Rules of simultaneous administration
Influenza *"flu shot"* Give IM	• People who are 65 years of age or older. • People under 65 with medical problems such as heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathies, immunosuppression, and/or those living in chronic care facilities. People (≥6mo of age) working or living with these people should be vaccinated as well. • All health care workers. • Healthy pregnant women who will be in their 2rd or 3rd trimesters during the influenza season. Pregnant women who have underlying medical conditions should be vaccinated before the flu season, regardless of the stage of pregnancy. • Anyone who wishes to reduce the likelihood of becoming ill with influenza.	• October through November is the optimal time to receive a flu shot to maximize protection, but the vaccine may be given at any time during the influenza season (typically December through March).	May be given anytime during the influenza season.	• Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. • Moderate or severe acute illness.	Can give with all others but at a separate site.
Pneumococcal Give IM or SQ	• All adults 65 years of age and older. • People under 65 who have chronic illness or other risk factors including chronic cardiac and pulmonary diseases, anatomic or functional asplenia (including sickle cell disease), chronic liver disease, alcoholism, diabetes mellitus, CSF leaks, as well as persons living in special environments or social settings (including Alaska natives and certain American Indian populations). Others at high risk include immunocompromised persons including those with HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome, those receiving immunosuppressive chemotherapy (including corticosteroids), and those who received an organ or bone marrow transplant.	• Routinely given as a one-time dose. • One-time revaccination is recommended 5 years later for people at highest risk of fatal pneumococcal infection, or if the 1st dose was given prior to age 65 and ≥5 years have elapsed since previous dose.	Give as soon as need is recognized.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness.	Can give with all others but at a separate site.
Hepatitis B (Hep-B) Give IM Brands may be used interchangeably.	• Many high-risk adults need vaccination including household contacts and sex partners of HBsAg-positive persons; users of illicit injectable drugs; heterosexuals with more than one sex partner in 6 months; men who have sex with men; people with recently diagnosed STDs; patients in hemodialysis units and patients with renal disease that may result in dialysis; recipients of certain blood products; health care workers and public safety workers who are exposed to blood; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities, and certain international travelers. • All adolescents. Note: In 1997, the NIH Consensus Development Conference, a panel of national experts, recommended that hepatitis B vaccination be given to all persons infected with hepatitis C virus. Note: Prior serologic testing may be recommended depending on the specific level of risk and/or likelihood of previous exposure. *Ed. note: Do serologic screening for people who have emigrated from endemic areas. When HBsAg-positive persons are identified, offer them appropriate disease management. In addition, screen their household members and intimate contacts and, if found susceptible, vaccinate.*	• Three doses are needed. • Commonly used timing options for vaccination: 0, 1, 6 months 0, 2, 4 months 0, 1, 4 months • There must be 4 wks between doses #1 and #2, and 8 wks between doses #2 and #3. Overall there must be at least 4 months between doses #1 and #3.	• If the series is delayed between doses, do not start the series over. Continue from where you left off.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness.	Can give with all others but at a separate site.
Hepatitis A (Hep-A) Give IM Brands may be used interchangeably.	• Adults who travel outside of the U.S. (except for Northern and Western Europe, New Zealand, Australia, Canada, and Japan). • People with chronic liver disease; all people with hepatitis C virus infection; people with hepatitis B who have chronic liver disease; illicit drug users; men who have sex with men; people with clotting disorders; people who work with hepatitis A virus in experimental lab settings (this does not refer to routine medical laboratories); and food handlers where health authorities or private employers determine vaccination to be cost-effective. Note: Prevaccination testing is likely to be cost effective for persons >40 years of age as well as for younger persons in certain groups with a high prevalence of HAV infection.	• Two doses are needed. • The minimum interval between dose #1 and #2 is 6 months.	If dose #2 is delayed, do not repeat dose #1. Just give dose #2.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness. •Safety during pregnancy has not been determined, so benefits must be weighed against potential risk.	Can give with all others but at a separate site.

For specific ACIP immunization recommendations refer to the full statements which are published in the *MMWR*. To obtain a complete set of ACIP statements, contact your state health department, or call 800/232-2522. The references most frequently used in creating this table include recent ACIP statements, *General Recommendations on Immunization, MMWR,* 1/28/94, and *Update on Adult Immunization, MMWR,* 11/15/91.

* Note: While moderate or severe acute illness is reason to postpone vaccination, mild acute illness is not.

This two-sided table was developed to combine adult immunization recommendations onto one page to assist health care workers in determining appropriate use and scheduling of vaccines. It can be posted in immunization clinics or clinicians' offices. The table will be revised approximately once a year because of the changing nature of national immunization recommendations. Check our website <www.immunize.org> to make sure you have the most current copy.

Item #P2011 (10/98)

Summary of Recommendations for Adult Immunization - side 2

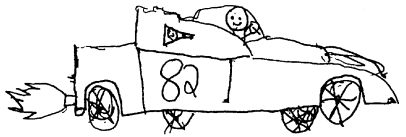
Vaccine name and route	For whom it is recommended	What is the usual schedule?	Schedule for those who have fallen behind	Contraindications and precautions*	Rules of simultaneous administration
Td (Tetanus, diphtheria) Give IM	After the primary series has been completed, a booster dose is recommended every 10 years. Make sure your patients have received a primary series of 3 doses. A booster dose after just 5 years may be needed for wound management, so consult ACIP recommendations.	Booster dose every 10 years after completion of the primary series of 3 doses.	The primary series is 3 doses: • Give dose #2 four wks after #1. • #3 is given 6-12 months after #2.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness.	Can give with all others but at a separate site.
MMR (Measles, Mumps, Rubella) Give SQ	• Adults born in 1957 or later who are ≥18 yrs of age (including those born outside the U.S.) should receive at least one dose of MMR if there is no serologic proof of immunity or documentation of a dose given on or after 1st birthday. • Adults in high-risk groups, such as health care workers, students entering colleges and other post high school educational institutions, and international travelers should receive a second dose. • All women of childbearing age (i.e., adolescent girls and premenopausal adult women) who do not have acceptable evidence of rubella immunity or vaccination. Note: Adults born before 1957 are usually considered immune but proof of immunity may be desirable for health care workers.	Dose #2, if recommended, is given no sooner than 4 wks after dose #1.	#2 may be given as early as 4wks after dose #1.	• Previous anaphylactic reaction to this vaccine, or to any of its components. (Anaphylactic reaction to eggs is no longer a contraindication to MMR, and skin testing isn't needed prior to vaccination.) • Pregnancy or possibility of pregnancy within 3 months. • HIV positivity is NOT a contraindication to MMR except for those who are severely immunocompromised. • Immunocompromised persons due to cancer, leukemia, lymphoma, immunosuppressive drug therapy, including high-dose steroids or radiation therapy. • If blood products or immune globulin have been administered during the past 11 months, consult the ACIP recommendations regarding time to wait before vaccinating. • Moderate or severe acute illness. Note: MMR is NOT contraindicated if a PPD test was done recently. PPD should be delayed for 4-6 weeks after an MMR has been given.	Can give with all others but at a separate site. If varicella is not given at the same time, space varicella and MMR at least 4 wks apart.
Varicella (Var) *"Chickenpox shot"* Give SQ	• All susceptible adults should be vaccinated. Special efforts should be made to vaccinate: susceptible persons who have close contact with persons at high risk for serious complications (e.g., health care workers and family contacts of immunocompromised persons) and susceptible persons who are at high risk of exposure (e.g., teachers of young children, day care employees, residents and staff in institutional settings such as colleges and correctional institutions, as well as non-pregnant women of childbearing age, and international travelers who do not have evidence of immunity). Note: Adults with reliable histories of chickenpox (such as self or parental report of disease) can be assumed to be immune. For adults who have no reliable history, serologic testing may be cost effective since most adults with a negative or uncertain history of varicella are immune.	Two doses are needed. Give dose #2 4-8 weeks after dose #1.	Give dose #2 no sooner than 4 wks after #1.	• Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy, or possibility of pregnancy within 1 month. • Immunocompromised persons due to malignancies and primary or acquired immunodeficiency including HIV/AIDS. Note: For those on high dose immunosuppressive therapy, consult ACIP recommendations regarding delay time. • If blood products or immune globulin have been administered during the past 5 months, consult the ACIP recommendations regarding time to wait before vaccinating. • Moderate or severe acute illness. Note: Manufacturer recommends that salicylates be avoided for 6 weeks after receiving varicella vaccine.	Can give with all others but at a separate site. If MMR is not given on the same day, space MMR and varicella at least 4 wks apart.
Polio vaccine IPV Give IM or SQ	Not routinely recommended for adults 18 years of age and older. Note: Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults should receive one booster dose if traveling to polio endemic areas.	Refer to ACIP recommendations regarding unique situations, schedules, and dosing information. If polio vaccine is indicated for adults, IPV is generally preferred.		Refer to ACIP recommendations.	Can give with all others but at a separate site.

* Note: While moderate or severe acute illness is reason to postpone vaccination, mild acute illness is not.

Your comments are welcome. Please send them to Lynn Bahta, RN, or Deborah Wexler, MD, Immunization Action Coalition, 1573 Selby Avenue, Suite 234, St. Paul, MN 55104, 651/647-9009, fax 651/647-9131, medinfo@immunize.org.

The Coalition thanks William Atkinson, MD, Douglas Bell, Judy Coates, RN, Gregory Gilmet, MD, Bernard Gonik, MD, John Grabenstein, MS Pharm, Neal Halsey, MD, Anne Kuettel, PHN, Virginia Lupo, MD, Edgar Marcuse, MD, Margaret Morrison, MD, Linda Moyer, RN, Gregory Poland, MD, Frederick Ruben, MD, William Schaffner, MD, Jane Seward, MBBS, and Thomas Vernon, MD, for their review and comments on this table. Final responsibility for errors or omissions lies with the editors.

"I follow the rules of the road. If you follow the rules of immunization, you won't get lost!"



Unprotected people...

Five varicella-related deaths that could have been prevented!

The Immunization Action Coalition collects gripping stories and case reports such as those below of people who have suffered or died from vaccine-preventable diseases. Stories and case reports can help get out an urgent message about the importance of vaccination. Please help! Send us stories, news items, or case reports about ANY vaccine-preventable disease. E-mail the Immunization Action Coalition at deborah@immunize.org or fax your information to 651/647-9131.

NOTE:
We publish these stories on IAC EXPRESS, our free Internet news service. To subscribe, send an e-mail to express@immunize.org and place the word SUBSCRIBE in the "Subject:" field.

Editors' note: *We hear many stories from parents about physicians who are not encouraging varicella vaccination. We hope that the following reports of deaths secondary to varicella infection will motivate clinicians to recommend this vaccine for all their susceptible patients. There are approximately 100 deaths (half of these in children) and 10,000 hospitalizations each year in the U.S. from varicella. These deaths and hospitalizations are preventable. Please recommend varicella vaccine to your susceptible patients (of ALL ages).*

Cases 1, 2, and 3 below were reprinted from the MMWR, *May 15, 1998, vol. 47, no. 18. Cases 4 and 5 were reprinted from* Michigan Immunization Update, *winter 98, vol. 5, no. 1.*

Case 1: Death of a 21-month-old

On February 28, 1997, a previously healthy, unvaccinated 21-month-old boy developed a typical varicella rash. He had no reported exposure to varicella. On March 1, he was taken to a local emergency department (ED) with a high fever and was started on oral acetaminophen and diphenhydramine. On March 3, his primary-care physician prescribed oral acyclovir. On March 4, his mother noted a new petechial-like rash. The next morning, his primary-care physician noted lethargy, a purpuric rash, and poor perfusion. He was transferred to a local ED. Fluid resuscitation and intravenous ceftriaxone were initiated, but the child continued to deteriorate rapidly, requiring intubation, mechanical ventilation, and inotropic support with dopamine. Blood cultures were negative for bacterial pathogens. Laboratory tests indicated disseminated intravascular coagulation and severe dehydration. Approximately 1½ hours after arrival at the ED, he was transported to a tertiary-care center. Within 10 minutes of arrival, he suffered cardiac arrest and died. The death was attributed to varicella with hemorrhagic complications.

Case 2: Death of a 5-year-old

On December 21, 1997, a 5-year-old unvaccinated boy with a history of asthma was taken to a local ED with a fever of 104.5 F (40.3 C) and a typical varicella rash in multiple stages of healing. The child was treated with antipyretic and antipruritic medications and discharged.

That evening, the boy developed mild dyspnea and was treated at home for a presumed asthma attack with metered-dose inhalers and one dose of oral prednisone. He returned to the ED on December 22 with shortness of breath and a 4-hour history of abdominal and leg pain. On presentation to the ED, one of the patient's siblings had active varicella and another had recently recovered from varicella. Physical examination revealed numerous chickenpox lesions, one of which appeared infected. He was tachypneic, and his extremities were mottled consistent with peripheral septic emboli. Chest and abdominal radiographs revealed a right pleural effusion, pneumonia, and mild ileus. Thoracostomy produced pleural fluid containing gram-positive cocci, confirmed 8 hours later to be group A *Streptococcus* (GAS). A peripheral blood sample revealed gram-positive cocci. He was admitted to the hospital and treated with intravenous ceftriaxone, nafcillin, and acyclovir.

After admission, his breathing became labored and his extremities increasingly mottled. He rapidly developed hypotension, obtundation, and bradycardia. Despite efforts at cardiopulmonary resuscitation, the child died 5 hours after arriving at the ED. A post-mortem examination attributed the death to GAS septicemia, pneumonia, and pleural effusion, complicating varicella infection.

Case 3: Death of a 23-month-old

On December 14, 1996, a previously healthy, unvaccinated 23-month-old boy developed fever and a typical varicella rash. Approximately 1–2 weeks earlier, his unvaccinated 4-year-old sibling had contracted varicella. He was taken to his physician on December 17 because of persistent fever and cellulitis of the left foot, and he was hospitalized on December 19 for failure to improve on an unspecified outpatient antibiotic regimen. Because his condition deteriorated despite intravenous methicillin and ceftriaxone, he was transferred to a regional hospital on December 21. Sepsis, possible viral meningoencephalitis, and mild pleural effusion were diagnosed. A cerebrospinal fluid examination revealed lymphocytic pleocytosis, and blood and urine cultures grew penicillin-resistant *Staphylococcus aureus*. Antibiotics were changed to nafcillin and gentamycin, and intravenous acyclovir was added on December 23. On December 24, the child developed an aortic insufficiency murmur, and an echocardiogram revealed a 9x9 mm vegetation on the aortic valve, consistent with bacterial endocarditis. Serial echocardiograms displayed growth of the vegetation and development of a pericardial effusion. He was transferred to a cardiac surgery center on December 26. While awaiting surgery, he developed refractive heart failure secondary to staphylococcal endocarditis. He became incoherent, probably secondary to a major embolic neurologic event, and died on January 8, 1997.

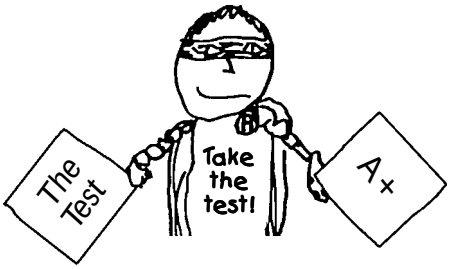
Case 4: Death of a 35-month-old

In March 1997, a 35-month-old unvaccinated, previously-well male child presented to the local hospital emergency room with gastrointestinal bleeding and onset of shock. He was transferred to a larger hospital and admitted to its pediatric intensive care unit (PICU). On admission to the PICU the child had a seizure, followed by rapidly progressive multi-system failure. The child died 2 ½ hours after admission. Autopsy determined that the cause of death was chickenpox and associated complications (causes of death noted in the hospital medical record were cardiac arrest secondary to profound hypotension, possible myocarditis, massive gastrointestinal hemorrhage, and varicella infection). This child had onset of varicella eight days prior to admission (an unvaccinated older sibling had onset of varicella three weeks prior) and was seen by a physician at that time.

Case 5: Death of a 42-year-old

In early 1997, a 42-year-old male presented to a hospital emergency room complaining of epigastric pain. A physical exam noted rash consistent with chickenpox. The patient stated all three of his children had been diagnosed with chickenpox in the previous three weeks. His previous medical history included severe chronic emphysema and chronic bronchitis, which was being managed with steroids under a physician's care. During the course of his hospitalization he developed varicella-related pneumonia and septic shock. The patient died three days after admission. According to a sibling, the patient was thought to have had chickenpox in childhood, but this could not be documented. ♦

Immunization Quiz



Will you get an A+?

(True or False)

1. Mild illness is a reason to withhold vaccination.
2. If a mother is breastfeeding, she shouldn't be vaccinated.
3. A temperature should be routinely checked before vaccinations are administered to children.
4. It's not necessary to do a pregnancy test routinely on an adolescent girl prior to receiving an MMR or varicella vaccine.
5. If there is an immunosuppressed child in the household, siblings should be given MMR and varicella vaccines.
6. If the first dose of hepatitis B vaccine was given more than one year ago, you should repeat the dose.
7. MMR and varicella vaccine can be given to a child whose mother is pregnant.
8. When a person has an injury and needs protection against tetanus, tetanus toxoid (Tt) should be used instead of tetanus toxoid combined with diphtheria toxoid (Td).
9. All health care workers (without contraindications) who have contact with patients should receive influenza vaccine.

Test Answers:

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

Did you get an A+? If you missed any of these, you can find the answers in previous issues of "Ask the Experts," the *1997 Red Book,* or ACIP statements.

Is it safe to give a vaccine directly into an area where there is a tattoo?

Both intramuscular and subcutaneous vaccines may be given through a tattoo.

What are the risks of not aspirating prior to an IM or SQ injection of a vaccine?

Aspiration is recommended in order to avoid injecting vaccine into a vein or artery. If blood is returned when the syringe is aspirated, the vaccine dose should not be injected.

Do patients with sickle cell disease or functional asplenia have any special vaccination recommendations?

Sickle cell disease often causes spleen damage. Persons two years of age and older with sickle cell disease should receive pneumococcal vaccine. A second dose of pneumococcal vaccine is recommended for this group (and other persons without a functional spleen) 5 years after the first dose. Persons without a functional spleen (including persons with sickle cell disease) should also receive a single dose of meningococcal vaccine, and a single dose of Hib vaccine, if they have not already been vaccinated against Hib.

When will the vaccine against Lyme disease be licensed?

Two manufacturers (SmithKline Beecham and Pasteur Merieux Connaught) have submitted license applications for a Lyme disease vaccine to the FDA. One or both of these vaccines could be licensed within the next year.

What new vaccines might be available in the next year or two?

It is likely that at least one inactivated vaccine for Lyme disease will be available this year, and a live attenuated influenza vaccine, given by nasal spray, may be available within the next two years. A conjugated pneumococcoccal vaccine for infants has recently completed clinical trials and may be available in the next 12-18 months.

Some doctors do not vaccinate children with minor illnesses. Are minor illnesses a contraindication to vaccination?

No. The ACIP, the AAP, and the AAFP recommend that children with minor illnesses, with or without low-grade fever, should be vaccinated. Minor illness would include upper respiratory infections, most cases of otitis media, colds, and diarrhea. There is no consistent evidence that these minor illnesses interfere with response to the vaccine, or increase adverse events. Children with more serious illnesses should be vaccinated as soon as they improve.

What length of needle is recommended for subcutaneous and intramuscular vaccines given to children and adults?

In both children and adults, subcutaneous injections (MMR, varicella, IPV) should be given with a 5/8- to 3/4-inch, 23- to 25-gauge needle. For intramuscular injections in infants and children, a minimum needle length of 7/8-inch should be used for anterolateral thigh injections, and a minimum of 5/8-inch for deltoid intramuscular injections is recommended. For adults, a 1- to 1 ½- inch needle is recommended, depending on muscle mass.

Diphtheria, tetanus, pertussis

by William L. Atkinson, MD, MPH

Can a child or an adult who has had pertussis get the disease again?

Reinfection appears to be uncommon, but does occur. Reinfection may present as a persistent cough rather than typical pertussis.

What's the difference between DT and Td vaccines?

The difference is the amount of diphtheria toxoid contained in each dose. Pediatric DT ("big D") contains 3-5 times more diphtheria toxoid than the adult Td ("little d").

Since ACIP recommends DTaP for use in infants, when is it appropriate to use DTP-Hib combination vaccines?

Combination whole-cell DTP and Hib vaccines may be used whenever DTP and Hib are indicated and none of the components is contraindicated. Some providers continue to use these products because it reduces the number of injections a child may need at a single visit. However, ACIP recommends the use of acellular pertussis vaccine (DTaP) for all 5 doses in the series because of the lower risk of adverse reactions.

Which DTaP vaccines are licensed for use in the primary series in infants?

As of October 1998, four acellular pertussis vaccines, which are combined with diphtheria and tetanus toxoids, have been licensed for the primary series in infants. The DTaP vaccines are (in alphabetical order) Acel-Imune (Wyeth-Lederle), Certiva (North American Vaccine), Infanrix (SmithKline Beecham), and Tripedia (Pasteur Merieux Connaught). Each of these four vaccines contain a different number and quantity of pertussis antigens. All four vaccines have similar estimates of vaccine efficacy, similar safety profiles, and are given on the same schedule (2, 4, 6, 15-18 months, 4-6 years). Neither ACIP nor AAP have stated a preference for one vaccine over the others.

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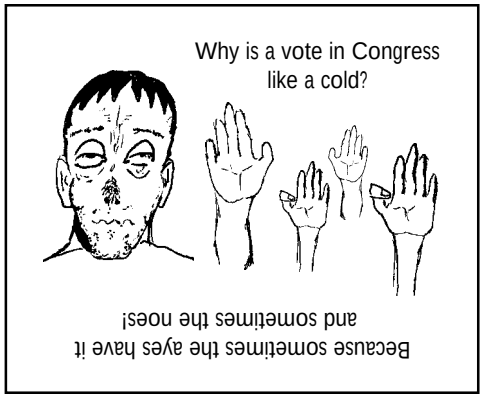


Can the fourth dose of DTaP be given to children who are 12 months of age?
If the interval since the third dose is at least six months and in your opinion the child is unlikely to return for a visit at the recommended age, the fourth dose of DTaP vaccine may be given as early as 12 months of age.

I thought the first booster of tetanus-diphtheria toxoid (Td) was given at 14-16 years of age, but now I read it's recommended at age 11-12. When did this change occur?
In 1996, the ACIP/AAP/AAFP/AMA published their recommendations for a routine adolescent immunization visit at 11-12 years of age. This visit is intended to assure that all recommended vaccines have been administered before the child starts middle school or junior high school. At the adolescent visit, the child should receive the first routine booster dose of Td if at least 5 years have passed since the last dose of DTP. Since most children will have completed their DTP series 5-7 years earlier, no increase in local adverse events following this dose of Td is expected (such as pain, redness, or swelling at the site of injection). In addition to Td, the child should receive varicella vaccine (if not previously infected or vaccinated); the second dose of MMR (if not already given); and the appropriate dose in the hepatitis B series if the series is not complete. You should also assess the adolescent for the need for influenza, pneumococcal, and hepatitis A vaccines.

Polio

by William L. Atkinson, MD, MPH

Under what circumstances would you use OPV for administration at 2, 4, and 6 mos. of age?
ACIP recommends the use of OPV if the child will be traveling or living in a polio-endemic area (currently south Asia and Africa), or if the parent declines the additional injections required for the sequential IPV-OPV or all-IPV schedules. An all-OPV schedule is also recommended if the primary series is begun after 6 months of age, to reduce the number of injections needed for "catch-up" vaccination.

If an infant received OPV at 2 months and IPV at 4 months, which vaccine should be given at 6 months of age?
The child may receive either OPV or IPV at six months of age. Most vaccine-associated paralytic polio (VAPP) occurs following the first dose of OPV, so there is little benefit in continuing the series with IPV, unless there is a contraindication to OPV or the parents prefer IPV.

If a child received 4 doses of polio vaccine starting at 6 weeks of age with at least 4 weeks between doses (any combination of OPV/IPV) before the 3rd birthday, is a 5th dose necessary?
ACIP recommends that the fourth dose in the polio series be given at the time a child enters kindergarten or first grade (4-6 years of age). But if the child has received a total of four doses of any combination of OPV or IPV at least 4 weeks apart, the child does not need a fifth dose at school entry. Some states' school entry regulations require at least one dose of polio vaccine to be given on or after the fourth birthday, regardless of the number of doses given before the fourth birthday.

Previously, IPV was recommended to be administered SQ only. Now I've read that it may also be given IM. Is this correct?
IPV is approved for either subcutaneous or intramuscular administration.

Hib

by William L. Atkinson, MD, MPH

A child started the Hib series at 2 months, received dose #2 at 6 months and dose #3 at 14 months. Does this child need Hib #4?
ACIP does not address this situation. However, a table in the *1997 Red Book* does address lapsed Hib immunization (page 230). According to the *Red Book*, this child needs no additional doses.

If an infant received one dose of Hib at 5 months, and another at 15 months, does he/she need any more doses?
No. If a child receives a dose of Hib vaccine at 15 months of age or older, he or she does not need any further doses regardless of the number of doses received before 15 months of age.

I know that Trihibit (Pasteur Merieux Connaught's DTaP-Hib combination vaccine) is licensed only for the fourth dose in the DTaP-Hib series. What should we do if we discover a child who has received Trihibit for the first, second, or third dose of the series?
NIP and FDA recommend that any dose of Hib vaccine given as Trihibit before the first birthday not be counted as part of the Hib series. The child should be revaccinated with Hib vaccine appropriate for his/her age. The DTaP doses do NOT need to be repeated. "Catch-up" schedules for Hib vaccine can be found in the Hib ACIP statement (*MMWR* 1993;42,RR-13), and in the AAP's *1997 Red Book*.

Measles, mumps, rubella

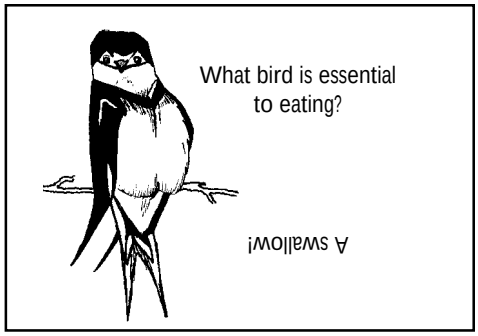
by William L. Atkinson, MD, MPH

A woman had a positive rubella titer with her first pregnancy. Her titer with her current pregnancy is negative. Does she need a postpartum MMR?
No. One positive titer is sufficient for a lifetime. Ignore subsequent negative results as they are most likely false negative.

If a woman has a negative rubella titer during her first pregnancy, should she be given MMR vaccine or only rubella vaccine alone prior to hospital discharge?
She should be given MMR, unless she has documentation of immunity to measles and mumps (birth before 1957, documented vaccination, or serologic evidence of immunity).

My patient has had two documented doses of MMR at the recommended ages. She tested negative for rubella during a prenatal visit. What should I do?
A small number of people appear to develop only a small amount of antibody following vaccination with rubella and other vaccines. This level of antibody may not be detectable on relatively insensitive commercial screening tests. Controlled trials with sensitive tests indicate a response rate of >99% following two doses of rubella-containing vaccine. I would suggest you note her documented vaccination, and stop testing.

Once the MMR vaccine has been reconstituted with diluent, how soon must it be used?
It is preferable to administer MMR immediately after reconstitution. If reconstituted MMR is not used within 8 hours it must be discarded. MMR should always be refrigerated and should never be left at room temperature.



Varicella

by William L. Atkinson, MD, MPH

Why is varicella vaccine contraindicated in patients with HIV when MMR usually is not?
There are very few data on the safety and efficacy of varicella vaccine in persons with HIV infection, and FDA has not approved it for this use. Studies of the use of varicella vaccine in HIV-infected persons are underway now.

If a pregnant woman with no history of varicella disease is exposed to varicella what should be done?
Pregnant women should never be given varicella vaccine. If a susceptible pregnant woman has a substantial exposure to varicella, the use of varicella zoster immune globulin (VZIG) should be strongly considered. Details on the use of VZIG may be found in the 1996 varicella ACIP statement *(MMWR* 1996;45,RR-11).

What should be done if varicella vaccine is given 23 days after an MMR?
The effect of the nonsimultaneous administration of MMR and varicella is unknown. As a general rule, ACIP recommends separating live virus vaccines (except OPV) by 4 weeks if they are not given at the same visit, but offers no guidance on what to do if the interval is less than 4 weeks. The

(continued on page 16)

most conservative approach, to assure a response to both vaccines, is to repeat the vaccine given too early, in this case the varicella vaccine.

For more clinical Q & A's on varicella disease/vaccine, go to www.cdc.gov/nip/clinqa/var.htm

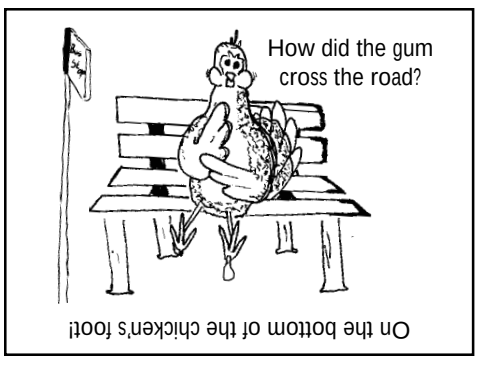
Ed. note: The answers to the following two questions appear on CDC's website under clinical questions on varicella disease and vaccination. To download all 50 questions, go to www.cdc.gov/nip/clinqa/var.htm

How serious a disease is varicella?

Prior to the availability of varicella vaccine there were approximately 4 million cases of varicella a year in the U.S. Though usually a mild disease in healthy children, an estimated 150,000 to 200,000 persons develop complications, about 10,000 persons require hospitalization and 100 people die each year from varicella. The majority of deaths and complications occur in previously healthy individuals. The most common complications from varicella are bacterial infections of the skin and soft tissues in children and pneumonia in adults. There has recently been increasing concern over the rising number of cases of invasive group A streptococcus (GAS) complicating varicella. Varicella is a well-described risk factor for invasive GAS infections. A 1997 *MMWR* publication highlighted an invasive GAS outbreak in a Boston child care center. Now that a safe and effective vaccine is available, the majority of morbidity and mortality associated with this disease is preventable by vaccination.

What are the risks for hospitalization and death from varicella?

Children have lower risks of hospitalizations and death from varicella than adults. However, these risks are not insignificant. One out of every 100,000 children (ages 5-9, the lowest risk group) will die from varicella and one out of every 5,000 adults with varicella will die. Risks of hospitalization are as follows: for children ages 1-4 years, approximately one out of every 300 with varicella will be hospitalized; for children ages 5-9 years, approximately one out of every 600 with varicella will be hospitalized; and for adults 20 years and older, approximately one out of every 50 with varicella will be hospitalized (based on CDC preliminary unpublished data from the National Hospital Discharge Survey 1988-1995; analysis is ongoing).



Rotavirus

by William L. Atkinson, MD, MPH

Now that rotavirus is FDA-licensed, when will ACIP, AAP, and AAFP recommend its use?

These advisory committees are currently developing recommendations on the use of rotavirus vaccine. These recommendations should be published in early 1999.

How much of a health problem is rotavirus disease?

Rotavirus is the most common cause of severe diarrhea in children in the United States. Virtually all children have one or more rotavirus infections in the first 5 years of life. Each year in the United States, rotavirus is responsible for approximately 500,000 physician visits and 50,000 hospitalizations (30-50% of all hospitalizations for diarrhea in children under 5 years of age). Children ages 3 to 24 months have the highest rates of severe disease and hospitalization.

How is the vaccine produced?

Rotavirus vaccine is a live viral vaccine, licensed by the FDA in August 1998. The vaccine was developed by the National Institutes of Health, and is licensed to Wyeth-Lederle Vaccines and Pediatrics. Wyeth calls the vaccine Rotashield, and it is generically called RRV-TV.

The vaccine contains four different rotavirus strains, all of which are derived from an attenuated rhesus monkey rotavirus strain (RRV-1). RRV-1 is antigenically similar to one of the major human rotavirus serotypes. Three additional strains of rotavirus have been developed from RRV-1 which contain genes from the other human rotavirus serotypes commonly found in the United States. Given as a single tetravalent vaccine, these four strains produce immunity to the four human rotavirus serotypes which are responsible for almost all rotavirus disease in the United States.

How effective is this vaccine?

In four placebo-controlled randomized trials, three doses of vaccine gave a vaccine efficacy of about 50% against *any* diarrhea caused by rotavirus and 70-95% efficacy against *severe* rotavirus diarrhea. In the one clinical trial large enough to study hospitalizations, the vaccine was 100% effective against hospitalization due to rotavirus diarrhea.

What is the recommended schedule for rotavirus vaccine?

The recommended schedule for routine administration is a series of three oral doses at 2, 4, and 6 months of age. The first dose may be given as early as 6 weeks of age and the minimum interval between doses is 3 weeks. The first dose is not recommended to be given to infants older than 6 months of age due to a preliminary study which found a higher incidence of fever with first doses given to infants over this age. Rotavirus vaccine is not recommended for children older than one year of age due to a lack of data on use in this age group nor is it recommended for premature infants (born at less than 37 weeks gestation).

What are the storage requirements for rotavirus vaccine storage?

The vaccine and diluent are approved to be stored at room temperature below 25°C (77°F). The vaccine and diluent may also be stored at refrigerator temperature, but must not be frozen.

For more clinical Q & A's on rotavirus disease and vaccine, go to www.cdc.gov/nip/rotavfactsht.htm

Influenza

by William L. Atkinson, MD, MPH

Do split and whole virus influenza vaccines have the same efficacy? Is there any reason to use whole virus influenza vaccine over the split product?

There is no difference in efficacy between split and whole virus influenza vaccines. Split virus vaccine is recommended for children 12 years of age or less because of fewer febrile reactions. There is no difference in adverse reactions between split and whole virus vaccines in adults, so either may be used in this age group.

High-risk children under 9 years old need 2 doses of influenza vaccine. Should 2 doses be given each year until the child turns 9?

No. Two doses should be administered to children less than 9 years of age (i.e., 6 months through 8 years) only the FIRST time the vaccine is given. A single dose should be given in subsequent influenza seasons.

Can the Evans influenza vaccine (Fluvirin) be used in children?

Fluvirin is not licensed for use in children less than four years of age. Use one of the other influenza vaccines for children ages 6 months to 4 years.

Will there be a shortage of influenza vaccine this year?

No. Delivery, however, may be slower in some areas due to manufacturing delays. The total number of doses, however, is expected to be about the same as last year.

Pneumococcal disease

by William L. Atkinson, MD, MPH

My patient doesn't have a record of receiving pneumococcal vaccine. What should I do?

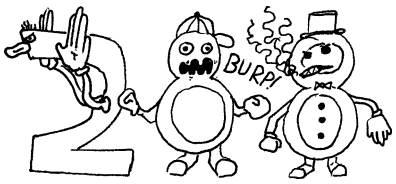
Providers should not withhold vaccination in the absence of an immunization record or complete

record. For pneumoccocal vaccine, the patient's verbal history can be used to determine vaccination status. Persons with uncertain or unknown vaccination status should be vaccinated.

Can the currently licensed pneumococcal vaccine be used to prevent otitis media and sinusitis in children?
The current polysaccharide pneumococcal vaccine has little or no effect on sinusitis or otitis media.

Is there a new pneumoccal vaccine available for infants?
No. Clinical trials of a conjugated pneumococcal vaccine have recently been completed. The vaccine appears to be effective in preventing invasive pneumococcal disease in infants and may prevent some cases of otitis media. The vaccine may be available in the next 12-18 months.

Why should the number 288 never be mentioned in polite company?



Because it's too gross (two gross)!

Hepatitis B

by Harold S. Margolis, MD, and Linda A. Moyer, RN

Merck has discontinued its 2.5 mcg pediatric dose of Recombivax-HB. If a child has received 2.5 mcg doses of Recombivax in the past, do these doses need to be repeated?
No, the vaccine series does not need to be repeated. The dosage was changed for convenience and to avoid confusion between the former high-risk and non-high-risk dosages, not for lack of efficacy. If a child is in the midst of the vaccination schedule and had started with the 2.5 mcg pediatric dose(s), the vaccination series can be completed with the 5 mcg dose(s).

An infant was given non-combination hepatitis B vaccine at birth, 1 month, and 4 months of age. Was the third dose given too early?
Yes. This infant should not have received the third dose before 6 months of age as poorer response rates are seen in infants who complete the vaccination series prior to 6 months of age. The third dose should be repeated when the infant is at least 6 months of age.

What is the optimal schedule for vaccinating infants of HBsAg-negative mothers who are immigrants/refugees from areas of the world where hepatitis B virus (HBV) infection is moderately or highly endemic?
Optimally, the vaccine should be started at birth, the second dose at 1-2 months of age, and the third dose at 6 months of age. It is particularly important that infants be protected early in life as the prevalence of HBV infection may be high among persons from countries where HBV infection is endemic.

An infant of an HBsAg-positive mother received 2 complete series of hepatitis B vaccine and is still both anti-HBs (antibody to HBsAg) and HBsAg negative. What further management should be given to this child?
If the vaccine was administered intramuscularly and stored properly, further vaccination is not warranted. Care should be taken that the infant doesn't come in contact with the mother's blood. If exposure does occur, hepatitis B immune globulin (HBIG) should be given as recommended in postexposure prophylaxis recommendations for the prevention of HBV infection.

We have a 12-year-old patient who has been HBsAg-positive since infancy. Now that the state requires proof of vaccination for hepatitis B, what do we do? His mom is less than enthusiastic about telling the school that he is positive for the virus, and I can't find any recommendations on vaccinating kids in this situation.
You (the child's physician) may want to provide the school with a letter stating that vaccination is contraindicated for the child. You should check with your state health department, as states may be different in what they require for declination of vaccination.

What should be done if a school-based clinic incorrectly gave the hepatitis B vaccine on a 0-, 1-, and 3-month schedule?
Repeat the third dose. There should be at least 4 months between the first and third dose.

My daughter was immunized against hepatitis B about 4 years ago. She was recently found "hepatitis B positive" by her gynecologist. Is this possible? Could it be a false positive?
It is possible, but unlikely that the result is a false positive as the HBsAg assay has high sensitivity and specificity. She may have already been HBsAg-positive before she was vaccinated. Therefore, the vaccine would not have been effective. One should, however, be sure that the positive test was actually HBsAg and not another hepatitis B marker such as anti-HBs or hepatitis B core antibody (anti-HBc). A positive anti-HBs test is expected after vaccination with hepatitis B vaccine but not a positive anti-HBc or HBsAg. If you are certain after careful checking that the test and reported result are correct, you should then make sure the laboratory that did the test repeated the test in duplicate and neutralization was performed.

Can adults as well as adolescents be immunized on a 0-, 2-, 4-month schedule for hep B?
Yes, there are data that show adequate seroprotection in young adults. If this schedule is used, you should be aware that the studies were in *young* adults and may not translate to older adults ($\geq$ 40).

Should hepatitis B vaccine be started in a high-risk patient who may not return for further doses? How many doses of hepatitis B vaccine does an adult need to be protected?
Yes. Patients at increased risk for HBV infection should be vaccinated despite the concern about non-completion of the vaccine series. Fifty percent of young, healthy persons develop anti-HBs after one dose of vaccine; about 90% after the second dose of vaccine. For long-term efficacy, however, three doses should be given. You should be aware that persons who are immunosuppressed (e.g., hemodialysis patients and patients with AIDS) and persons who are older ($\geq$ 40) are less apt to show such high rates.

I tested positive for chronic HBV infection about 5 months ago. I know there is a vaccine to prevent transmission, however, I would like to know how long my sex partner (I don't have one now) should wait after taking this vaccine, before having sex with me without any risk of transmission.
Your sex partner should have the three dose series of vaccine and have postvaccination testing 1-2 months after the last dose of vaccine. If your sex partner's test shows adequate anti-HBs (i.e., $\geq$ 10 mIU/mL), then he/she should be protected against HBV infection. In the interim, barrier precautions should be used.

What serologic tests should be done to confirm a diagnosis of acute HBV infection?
IgM antibody to hepatitis B core antigen (IgM anti-HBc) is the test that indicates recent acute HBV infection. IgM anti-HBc is usually present for about 6 months. Persons with acute hepatitis B, when tested, are usually HBsAg positive, as well.

I have a 33-year-old patient who received 3 doses of hepatitis B vaccine 1 year ago. Currently, his anti-HBs is 89 mIU/mL. He was advised elsewhere to get one more dose. Isn't he immune?
You are correct. Anti-HBs $\geq$10 mIU/mL is considered adequate.

If HCWs were vaccinated for hepatitis B in the past and not tested for immunity, should they be tested now?
No. A HCW does not need to be tested unless he or she has an exposure. If an exposure occurs, refer to the ACIP recommendations for hepatitis B (11/21/91) Appendix A for management guidelines. In addition to following these guidelines, if prophylaxis (HBIG and a booster dose of vaccine) is indicated, the person should receive postvaccination testing 3–6 months afterwards. It is necessary to do postvaccination testing at 3–6 months as earlier testing may just measure antibody from HBIG. This postvaccination anti-HBs test result should be recorded in the person's health record.

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HBV Clinical Trials

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

For adult studies, contact Lanette Sherrill, CRNP, MSN. For pediatric studies, contact Jan Kiell, RN, BS. Both can be reached at 205/934-2424.

If an employee does not respond to hepatitis B vaccination, does he/she need to be removed from activities that expose him/her to bloodborne pathogens? Does the employer have a responsibility in this area other than providing the vaccine? Where can I get further information on this subject?

There are no regulations that demand removal from certain job situations as described; this is more of an individual policy decision within the organization. The Occupational Safety and Health Administration (OSHA) requires that employees in jobs where there is a reasonable risk of exposure to blood be offered hepatitis B vaccine. In addition, the regulation also states that adequate personal protective equipment be provided and that standard precautions be followed. Check with your state OSHA regarding more stringent requirements. If there is no state OSHA, federal OSHA regulations should be followed. Adequate documentation should be placed in the employee record regarding non-response to vaccination. The employee should be counseled that non-response to the vaccination series most likely means that the employee is susceptible to HBV infection and that if an exposure to HBV occurs, HBIG should be used for postexposure prophylaxis. HBsAg testing should be recommended as it is possible that the employee is chronically infected with HBV. Counseling of the employee should then be done to discuss what non-response to the vaccination series means for that specific employee and what steps should be taken in the future to protect his/her health.

My hemodialysis patient has had 2 complete series of hepatitis B vaccine. When tested, he is anti-HBs negative. What do we do next?

The postvaccination test should be done 1-2 months after the last dose of vaccine. If this was not done, the patient may have lost antibody over time and should be vaccinated again. However, if testing was timely, the patient should be considered a non-responder and further vaccination is not warranted.

What types of equipment cleaners are viracidal against HBV?

Commercially available household bleach solution (1:100) will inactivate HBV. Equipment should first be cleaned with soap and water and then wiped down with the disinfectant. Any high level disinfectant that is also tuberculocidal will kill HBV.

My patient from Asia is HBsAg negative, anti-HBc positive, anti-HBs negative, and is going back to Asia to live. Does this person need to be vaccinated?

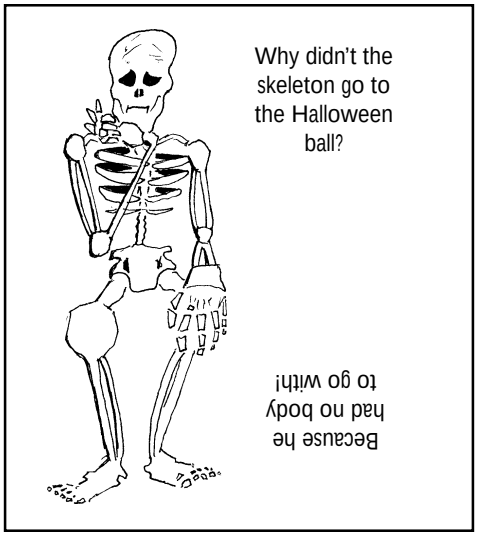
It would be prudent to vaccinate. There are numerous reports in the literature that describe primary vaccine response in patients with isolated anti-HBc. There are, however, reports in the literature of HBV DNA being found in patients with this serologic profile. The decision to vaccinate or not to vaccinate and the decision for further testing should be based on the patient's clinical picture.

Is there a certain period of time one should wait after receiving hepatitis B vaccine before donating blood?

There have been reports of patients testing transiently HBsAg positive after receiving hepatitis B vaccine. Although this is rarely seen, and doesn't represent infection with HBV, it may be wise to defer donation for at least 2 weeks after vaccination. This should prevent unnecessary permanent donor deferral.

A local TV station ran a story about thousands of people who received hepatitis B vaccine and are suffering from autoimmune diseases. We have patients who have been vaccinated against hepatitis B calling our clinic concerned that they may get sick or even die. Public hysteria — any help calming their fears? Or where can I go for more information?

Hepatitis B vaccines have been shown to be very safe when given to infants, children and adults. There is no confirmed evidence indicating that hepatitis B vaccine can cause chronic illnesses, such as autoimmune disease (e.g., rheumatoid arthritis) or neurological disease (e.g., multiple sclerosis). Case reports of unusual illnesses following vaccines are most often related to other causes and not related to a vaccine. Whenever large numbers of vaccines are given, some adverse events will occur coincidentally after vaccination and be falsely attributed to the vaccine. Anyone believing they have had a possible reaction or adverse health effect from a vaccine should report it to their health care provider. The Vaccine Adverse Events Reporting System (800/822-7967) receives reports from health care providers and others about vaccine side effects. Further information on vaccine safety can be accessed by visiting the hepatitis branch website at: www.cdc.gov/ncidod/diseases/hepatitis/hepatitis.htm



Hepatitis A

by Harold S. Margolis, MD, and Linda A. Moyer, RN

I understand that it is safe for pregnant women to receive hepatitis B vaccine. Is this true for hepatitis A vaccine as well?

The safety of hepatitis A vaccination during pregnancy has not been determined. However, because hepatitis A vaccine is produced from inactivated hepatitis A virus (HAV), the theoretical risk to the developing fetus is expected to be low. The risk associated with vaccination should be weighed against the risk for hepatitis A in women who may be at high risk for exposure to HAV.

How effective is hepatitis A vaccine? What happens if dose #2 is delayed?

The immunogenicity of one dose of hepatitis A vaccine is 94%-100%. Immunogenicity is considered to be equal to efficacy. The vaccine series should be completed to assure long-term protection.

If hepatitis A vaccine was inadvertently given subcutaneously (SQ) instead of intramuscularly (IM), does the dose need to be repeated?

Although there is no data that speaks to this issue, it would be prudent to repeat the dosage by the IM route.

Can hepatitis A vaccine and hepatitis B vaccine be given simultaneously?

Yes, but at different sites.

Why isn't hepatitis A vaccine recommended for sewage and solid waste disposal workers?

Data from serologic studies among Scandinavian and English workers who had been exposed to sewage indicate a possible elevated risk for HAV infection. However, in these studies the data were not controlled for other risk factors (e.g., socioeconomic status). In the United States, no work-related cases of HAV transmission have been reported among workers exposed to sewage, and serologic data are not available. Studies to determine the risk for HAV infection among sewage workers are ongoing.

I recently read about a new vaccine which is a combined vaccine for both hepatitis A and B. When will it be available in the United States?

Combination vaccines are licensed in Europe and being evaluated in the United States. The date of availability in the United States is unknown, as yet. ♦

Hepatitis A & B Vaccines

Make sure you give your patients the correct dose!

Recommended dosages and schedules of hepatitis A vaccines

Vaccine	Age group	Dose	Volume	# Doses	Schedule
Havrix (SmithKline Beecham)	2-18 years	720 El.U.*	0.5 ml	2	0, 6-12 months
	19 years and older	1440 El.U.*	1.0 ml	2	0, 6-12 months
Vaqta (Merck & Co.)	2-17 years	25 U**	0.5 ml	2	0, 6-18 months
	18 years and older	50 U**	1.0 ml	2	0, 6 months

* El.U. = Elisa Units ** U. = Units

Recommended dosages of hepatitis B vaccines *

Vaccine brand	Age group	Dose	Volume	# Doses
Engerix-B (SmithKline Beecham)	0-19 years	10 μg	0.5 ml	3
	20 years and older	20 μg	1.0 ml	3
Recombivax HB (Merck & Co.)	0-19 years	5 μg	0.5 ml	3
	20 years and older	10 μg	1.0 ml	3

***** The schedule for hepatitis B vaccination is flexible and varies. Consult the ACIP statement on Hepatitis B (11/91), AAP's *1997 Red Book*, or the package insert for details.

Note! For adult dialysis patients: the Engerix-B dose required is 40µg/2.0ml (use the adult 20µg/ml concentration) on a schedule of 0, 1, 2, and 6 months. For Recombivax HB, a special formulation for dialysis patients is available. The dose is 40µg/1.0ml and it is given on a schedule of 0, 1, and 6 months.

What hepatitis B question is asked over and over and over and over and over again?

Never start the series over! Never! Never! Never!

Item # P2081 (10/98)

National Resources

Here's some info you may be looking for!

Order these immunization and hepatitis resources directly from the organizations listed.

Twice a year, the Immunization Action Coalition publishes this list of great resources from around the nation. If you know of other resources, call us at 651/647-9009 or e-mail us at medinfo@immunize.org

Reference materials

IAC EXPRESS. Sign up to have immunization news and hepatitis B treatment news delivered directly to you via e-mail. To subscribe, send an e-mail to express@immunize.org and place the word SUBSCRIBE in the "Subject:" field. It's free!

CDC's Immunization Hotline. Call to get ACIP statements, Vaccine Information Statements (VISs), or to speak with an information specialist. This hotline also answers consumer questions in English and Spanish. Hours: 8am to 11pm EST Mon-Fri. Call 800/232-2522; for Spanish language, call 800/232-0233.

ACIP statements. Make sure your clinic has a set of these public health recommendations on vaccines. For information on how to order a complete set or just the ones you want, see "Vaccine Highlights" (page 4) or call CDC's Immunization Hotline at 800/232-2522.

Vaccine Information Statements **(VISs)** (CDC). Give these to your patients prior to vaccination. To order, call your state health dept. or CDC's Immunization Hotline at 800/232-2522. CA Immunization Branch distributes VISs (except influenza and pneumococcal) in 14 languages. To order, call Maria Clarke at 510/849-5042. (The IAC has CA's Spanish VISs at www.immunize.org) MN Dept. of Health has influenza and pneumococcal VISs in six languages at www.health.state.mn.us/divs/dpc/adps/adps.htm or call 612/676-5237.

Pink Book–Epidemiology & Prevention of Vaccine Preventable Diseases (CDC, 1997). Definitive resource book on vaccines. Download free at www.cdc.gov/nip/epvtable/htm. Hard copy currently out of print. Next edition available after 1/1/99 at which time you can call the Public Health Foundation at 800/418-7246 to order. $25.

www.cdc.gov/nip
If you're looking for immunization resources from CDC, this is a great place to go!

National Immunization Program's Resource Request List (CDC). Get a complete list of all of CDC's free immunization resources. Call 888/232-3299, request document #130011, and you will receive the list by fax.

Red Book–Report of the Committee on Infectious Diseases (AAP, 1997). Recommendations for prevention and management of infectious diseases in children. AAP also publishes ***AAP News***, a monthly newspaper that contains new immunization recommendations, etc. Call 800/433-9016.

Green Book–Guide for Adult Immunization (ACP, 1994). Recommendations for the prevention and management of infectious diseases. Call 800/523-1546, ext 2600.

www.immunize.org
Looking for immunization or hepatitis A and B resources? IAC's website is a great place to go!

NEEDLE TIPS (IAC, a semi-annual publication). For health professionals concerned about hepatitis B and all other vaccine-preventable diseases. Free, but a $50 membership contribution is appreciated. To be added to the mailing list, e-mail your request to admin@immunize.org, call 651/647-9009, or download the complete publication at www.immunize.org

VACCINATE ADULTS! (IAC, a semi-annual publication). Contains information about adult immunization and hepatitis A and B issues. If you receive *NEEDLE TIPS*, you are already getting the information that is published in *VACCINATE ADULTS!* Free, but a $40 membership contribution is appreciated. To be added to the mailing list, e-mail your request to admin@immunize.org or call 651/647-9009, or download the complete publication at www.immunize.org

www.cdc.gov/nip/vacsafe/
If you're looking for vaccine safety information from CDC, this is a great place to go!

NEW! Sabin Vaccine Report (Sabin Vaccine Institute, Georgetown University). Covers information on vaccine research, development, and implementation. Free. Call 202/687-9145 or request it from: info@sabin.georgetown.edu

NEW! Institute for Vaccine Safety (Johns Hopkins School of Public Health). Provides timely and objective information on vaccine safety to health care providers, journalists, and parents. Call 410/955-2955 or visit their website: www.vaccinesafety.edu

www.cdc.gov/ncidod/diseases/hepatitis/index.htm
For CDC's hepatitis A, B, and C resources!

Vaccine Bulletin (NCM Publishers, a monthly publication). Information about new immunization recommendations and vaccine research. Free. Fax your request to 212/645-2571.

Hepatitis Control Report (Precision Media Works). Devoted to news on the control of viral hepatitis. Free. Call 610/664-2793.

Assn.of Teachers of Preventive Medicine. Publishes immunization teaching tools for health professionals. Call 800/789-6737.

ImmunoFacts (J.D. Grabenstein, Facts and Comparisons). Updatable comprehensive reference on vaccines and immunologic drugs. $125. Call 800/223-0554.

Immunization Delivery: A Complete Guide (J.D. Grabenstein, Facts and Comparisons, 1997). Provides guidance for operating an immunization program in a variety of settings. $29.95. Call 800/223-0554.

What Every Parent Should Know About Vaccines (P.A. Offit, L.M. Bell, MacMillan, 1998). $12.95. Call 800/428-5331.

Travel

International Society of Travel Medicine. Visit www.istm.org for information on travel clinic locations in your area plus more.

CDC International Travel Information. The *Yellow Book* contains vaccine information and requirements for foreign travel. $20. Call the Superintendent of Documents at 202/512-1800 or download it free from CDC's travel website: www.cdc.gov/travel. To receive CDC travel info by fax, call 888/232-3299.

Travel & Routine Immunizations - *a practical guide for the medical office.* (Shoreland, 1998). Call 800/433-5256 or visit: www.shoreland.com

New Videos

Ed. note: Only new videos are listed. For information on other excellent videos, see past issues of NEEDLE TIPS or go to: www.immunize.org

Varicella Vaccine: A Giant Step Towards Disease Prevention (MI State U, 1998, 16 min). Motivating and graphic, urges vaccination of children and teens. Single copy free. More than one, $15 ea. Call 517/353-2596.

A *Paralyzing Fear: The Story of Polio in America* (PBS, 1998 90 min). A documentary that chronicles the polio era from epidemic to vaccine. $19.95. To order, call 800/344-3337.

Need adolescent videos?
See the next page!

Special telephone lines

National Clinicians' Post-Exposure Prophylaxis Hotline: PEPLine (UCSF). A 24-hour emergency hotline to provide guidance to clinicians whose patients have suffered occupational exposures to blood. Call 888/448-4911.

Varivax Pregnancy Registry. To monitor maternal-fetal outcomes in women who received varicella vaccine 3 months before or any time during pregnancy. Report cases to 800/986-8999.

Vaccine Adverse Event Reporting System (VAERS) is a nationwide reporting system for monitoring adverse events following immunization. Providers are encouraged to report all clinically significant adverse events following the administration of any U.S.-licensed vaccine in any age group. Call 800/822-7967.

National Vaccine Injury Compensation Program (VICP). A federal "no-fault" system designed to compensate those who have been injured by childhood vaccines administered in the private or public sectors. Call 800/338-2382 or visit: www.hrsa.dhhs.gov/bhpr/vicp

Miscellaneous

Clinic Assessment Software Applications (CASA). Use this CDC software to assess your clinic's immunization rates. Call your state immunization program (phone numbers page 23) or visit: www.cdc.gov/nip/casa/index.htm

AFIX Assessment, feedback, incentives, exchange (CDC). Need help assessing/improving immunization rates? Call Gene Dini at 404/639-8814 or visit: www.cdc.gov/nip/afix/

NEW! Make Every Visit Count! (CDC, AAP) Self-assessment tool for providers of immunization services to children. Call 404/639-8814 for a copy or visit: www.cdc.gov/nip/afix/links.htm

Immunization Registries. Call Kris Saarlas at All Kids Count, phone number 404/687-5615, or visit: www.allkidscount.org or you can also contact CDC's Immunization Registry Clearinghouse at: www.cdc.gov/nip/registry

NEW! Hepatitis B Information and Support. A caring and compassionate e-mail discussion/support group for people who have chronic HBV infection. To subscribe send a blank e-mail to: hepatitis-b-on@mail-list.com

NEW! Calendario 1999 - *Corazon del Madre* (HMA). A bilingual calendar for your Latino patients. Illustrated by Latino artists. Each month has an immunization message. Free! You only pay postage. Minimum order 100. Call 202/342-0676.

America's Youth Passport **and** ***America's Senior Health Record*** (Securitec Corp). Sturdy booklets in which to keep children's and seniors' immunizations records. Call 800/783-2145.

Phone numbers and websites for more information

Call these organizations to find out what resources they can send you. Many of them have newsletters, brochures, fact sheets, videos, and more! You can also check their websites.

Routine Immunization

All Kids Count (www.allkidscount.org)	404/687-5615
American Academy of Pediatrics (www.aap.org) ★	800/433-9016
CDC's Immunization Information Hotline	800/232-2522
CDC's Voice and Fax Immunization Information Line	888/232-3228
Congress of National Black Churches	202/371-1091
COSSMHO (Nat'l Coalition of Hispanic Health Orgs.) (www.cossmho.org) ★	202/797-4348
Every Child by Two (www.ecbt.org)	202/651-7226
HMA Associates (PSAs & print materials for Latinos) ★	202/342-0676
Immunization Action Coalition (www.immunize.org) ★	651/647-9009
Immunization Education and Action Committee	703/836-6110
Nat'l Coalition for Adult Immunization (www.medscape.com/affiliates/ncai)	301/656-0003
National Council of La Raza (www.nclr.org) ★	202/785-1670
Nat'l Immunization Program's Education & Training Branch (www.cdc.gov/nip)	404/639-8225
NIP: Ask a CDC expert your immunization question	nipinfo@cdc.gov
National Institute on Aging (www.nih.gov/nia)	800/222-2225
Office of Minority Health (www.omhrc.gov) ★	800/444-6472
Your health department's immunization program (# is on page 23)	_____

Hepatitis Information

American Liver Foundation (www.liver-foundation.org) ★❖	800/223-0179
Hepatitis A brochure for gay men	800/200-HEPA (4372)
Hepatitis A brochure for travelers	800/437-2829
Hepatitis A information kit	800/437-2344
CDC's Hepatitis Information Hotline★❖	888/443-7232
CDC's Hepatitis website	www.cdc.gov/ncidod/diseases/hepatitis/hepatitis.htm
CDC's Hepatitis Branch epidemiologist on call	404/639-2709
Hepatitis B Coalition (www.immunize.org) ★	651/647-9009
Hepatitis B Foundation (www.hepb.org)	215/489-4900
Hepatitis Foundation International (www.hepfi.org) ★❖	800/891-0707
Nat'l Digestive Diseases Information Clearinghouse ★❖ (www. niddk.nih.gov)	301/654-3810
Plexus Health Group	912/638-6705
Your health department's hepatitis coordinator (# is on page 23)	_____

Pharmaceutical Companies

Abbott Diagnostics	800/323-9100
Aviron (www.aviron.com)	650/919-6500
Chiron Corporation (www.chiron.com)	800/244-7668
Merck & Co., Inc. (www.merck.com)	800/672-6372
North American Vaccine (www.nava.com)	301/419-8400
Pasteur Merieux Connaught, Inc. (www.us.pmc-vacc.com)	800/822-2463
SmithKline Beecham (www.sb.com)	800/366-8900
Wyeth-Lederle Vaccines & Pediatrics (www.ahp.com)	800/358-7443
professional services:	800/395-9938

★ materials available in other languages as well as English
❖ these organizations also provide information on hepatitis C

Adolescent resources

Reference materials

ACIP Adolescent Statement. CDC's adolescent immunization recommendations. To find out how to get a copy, read "ACIP Statements" on page 4.

Adolescent Vaccinations. A special issue of the *Journal of School Health,* Sept. 1997. Contains case studies, features, and resources. $8.50. Call ASHA publication department at 330/678-1601.

Adolescent Immunization Workshop. A CDC national workshop report on how groups can implement the national recommendation for the adolescent immunization visit. Free. Fax requests to the Coalition at 651/647-9131.

NEW! Roll Up BOTH Sleeves!(San Francisco Unified School District). This expanded version of *"Roll Up Your Sleeves"* will help you provide vaccination and TB testing to students and school staff. Includes video for teens, "Case of the Missing Shots." $15. To order call ASHA at 330/678-1601.

NEW! Hepatitis B: Why Take the Risk? (American College Health Assn, 1998, 3 min). A video, manual, posters, brochures, to implement an education and vaccination campaign for college students. Call 410/859-1500 ext 222.

Give Teens a Shot (JG Consultants, 1996). A 3-ring binder on how to establish a hepatitis B immunization program in juvenile correction facilities. $20. Call 503/731-4267.

A Review of Adolescent School-based Hepatitis B Vaccination Projects. CDC's 115-page in-depth report on hepatitis B projects at 15 schools. Free. Fax your request to 404/639-8828.

Primer for Teachers, Quick & Easy (HFI, 1996). A liver wellness curriculum (K-12) for teachers. Includes messages about hepatitis B and substance abuse prevention. Call 800/891-0707.

Teen videos

NEW! Respect Yourself, Protect Yourself *(Teens talking to teens about liver wellness.)* (HFI, 1998, 8 min). Full of action and animation. $35. Call 800/891-0707.

The following three videos can be ordered from IAC using the order form on page 27 or by faxing a request for IAC's catalog to 651/647-9131.

Immunization Day (UCLA and CA Dept. of Health, 1997). An upbeat 13-minute video to show middle school students. Music by Coolio. $5 (reduced from $10).

Partnership for Prevention (SKB, 1995, 6 min). A hepatitis B video for 10- to 12-year olds. May be shown in classrooms, clinics, etc., but may not be shown on TV. $10.

Get the Facts, Then Get the Vax! (ASHA, 1995, 6 min). Presents hepatitis B information for high school students. May be used in any setting. $10.

Teen brochures/poster from IAC

IAC has teen immunization materials including brochures, a poster, immunization guidelines, and more. Some teen brochures are available in Spanish as well as several Asian languages. To order camera-ready brochures, see the catalog on pages 24–27 or fax your request for our catalog to 651/647-9131. All items (except posters) can be downloaded free: www.immunize.org

Adult resources

IAC has adult immunization materials including brochures, poster, immunization guidelines. For more information on these materials, see the catalog on pages 24–27 or fax your request for our catalog to 651/647-9131. All items (except posters) can be downloaded free: www.immunize.org

NEW! VACCINATE ADULTS! (IAC, a 12-page semi-annual publication). See page 20 for a description.

NEW! Adult Immunization Action Plan (DHHS, 1998). The government's plan on how it will increase adult immunization rates. To request a copy, send an e-mail to William DiGioia at wbd0@cdc.gov or call 404/639-4450.

ACIP Influenza Statement (1998) and ***ACIP Pneumococcal Statement*** (4/25/97) are available. To find out how to get copies, read "The Latest ACIP Statements" on page four.

CDC's Immunization Hotline. Call to receive a copy of "Summary of Adult Immunization Recommendations - 7/16/97." Ask about other materials CDC can send you. Call 800/232-2522.

Revised! Resource Guide for Adult and Adolescent Immunization (NCAI, 1998). A list of materials you can order from various organizations. Fax your request for a free copy to 301/907-0878 or call 301/656-0003.

The *American Lung Association* has brochures, posters, and other items about influenza and pneumococcal disease. Call 800/586-4872 and you will be connected to your local chapter.

Health Care Financing Administration (HCFA) has posters (English and Spanish) and reminder postcards (English, Spanish, Korean, Vietnamese, and Chinese) that promote adult immunization against influenza and pneumococcal disease. For more information, contact your regional HCFA office or call Michelle Opheim at 816/426-5233.

Green Book–Guide for Adult Immunization (ACP, 1994). Recommendations for the prevention and management of infectious diseases in adults. $27.50. Call 800/523-1546, ext. 2600.

Need Help?

Call your immunization, hepatitis, and VFC coordinators

Get to know your governmental resource people. They are there to help you! Find out what kind of patient and provider educational materials they have including posters, brochures, and videos. Call them to register for the excellent immunization conferences that CDC broadcasts by satellite. They may also be able to help you audit your clinic's immunization rates and/or help you develop immunization tracking systems. Give them a call!

State Coordinators

Alabama
Iz: Gary Higginbotham 334/206-5023
Hep B (South AL): Sue Balsamo 334/947-6206
HepB (North AL): Janet Mitchell 205/582-3174
VFC: Cynthia Lesinger 800/469-4599

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

Arizona
Iz: Kathy Fredrickson 602/230-5855
Hep B: Linda Faris 602/230-5858
VFC: Betty Finch 602/230-5832

Arkansas
Iz: Linda Gladden 501/661-2318
Hep B: Sherry Ahring 501/661-2053
VFC: Ruby Jones 501/661-2170

California
Iz: Natalie Smith, MD 510/540-2065
Hep B: Les Burd 510/540-2879
VFC: John Scott 510/704-3750

CA, Los Angeles
Hep B: Bridget Beeman 213/580-9810

Colorado
Iz: Patricia Rotharmel 303/692-2669
Hep B: Amy Warner 303/692-2673
VFC: Rosemary Spence 303/692-2798

Connecticut
Iz: Vincent Sacco 860/509-7929
Hep B: Aaron Roome 860/509-7900
VFC: Richard Carney 860/509-7292

Delaware
Iz: Kathleen Russell 302/739-4746
Hep B: Laura Gannon 302/739-4746
VFC: William Baker 302/739-4746

District of Columbia
Iz: James Giandelia 202/576-7130
Hep B: Martin Levy 202/645-5572
VFC: Jacob Mbafor 202/576-7130

Florida
Iz: Henry Janowski 850/487-2755
Hep B: Phillip Gresham 850/487-2755
VFC: Al Sulkes 850/487-2755

What bird is always sad?

The bluebird!

Georgia
Iz: Michael Chaney 404/657-3158
Hep B: Peggy Monkus 404/657-3158
VFC: Stephanie Boatenreiter 404/657-3158

Hawaii
Iz: Lin Watson (acting) 808/586-8330
Hep B: Mits Sugi 808/586-8338
VFC: Charles Miller 808/586-8311

Idaho
Iz:Merlene Fletcher 208/334-5942
Hep B: Merlene Fletcher 208/334-5942
VFC:Bob Salisbury 208/334-4949

Illinois
Iz: Karen McMahon (acting) 217/785-1455
Hep B: Susan Williams 217/785-1455
VFC: Bill Moran 217/786-7500

IL, Chicago
Iz: Cheryl Byers 312/746-6120
Hep B: Monty Dobzyn 312/746-7147
VFC: Stan Owens 312/746-5960

Indiana
Iz: Dave Ellsworth (acting) 317/233-7010
Hep B: Ockland Fergus 317/233-7004
VFC: Thomas Hicks 317/233-7435

Iowa
Iz: Pamela Lutz 515/281-4917
Hep B: Tina Patterson 515/281-7053
VFC: Don Callaghan 515/281-7301

Kansas
Iz: Monica Mayer 785/296-5591
Hep B: Vacant
VFC: Monica Mayer 785/296-5591

Kentucky
Iz: Sandra Gambescia 502/564-4478
Hep B: Doll Morton 502/564-4478
VFC: Sandra Gambescia 502/564-4478

Louisiana
Iz: Reuben Tapia 504/483-1900
Hep B: Cathy Scott 318/345-1700
VFC: Patricia Simon 504/483-1908

Maine
Iz: Jude Walsh 207/287-3746
Hep B: Steve Ogden 207/287-3746
VFC: Linda Huff 207/287-3746

Maryland
Iz: Barry Trostel 410/767-6679
Hep B: Vacant 410/767-6679
VFC: Vacant 410/333-5893

MD, Baltimore
Hep B: Kathy Vetter 410/545-3050

Massachusetts
Iz: Vacant 617/983-6800
Hep B: Linda Keller 617/983-6800
VFC: Pejman Talebian 617/983-6800

Michigan
Iz: Dr. Gillian Stoltman 517/335-8159
Hep B: Nancy Fasano 517/335-9423
VFC: Bob Swanson 517/335-8179

MI, Detroit & SE Michigan
Iz: Melinda Dickson 313/876-4720
Hep B: Therese McGratty 313/256-1873

Minnesota
Iz: Alan Lifson, MD 612/676-5237
Hep B: Margo Roddy 612/676-5237
VFC: Barbara Ottis 612/676-5237

Mississippi
Iz: Joy Sennett 601/960-7751
Hep B: Joyce Booth 601/960-7751
VFC: Katy Surkin 601/960-7751

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

Montana
Iz: Joyce Burgett, RN 406/444-0065
Hep B: Marci Eckerson 406/444-1805
VFC: Elizabeth Evans 406/444-0277

Nebraska
Iz: T. Grey Bordon 402/471-2937
Hep B: Molly Uden 402/471-2937
VFC: Molly Uden 402/471-2937

NE, Douglas County
Iz: Bonnie Scholting 402/444-7395

NE, Lincoln
Hep B: Sally Cameron 402/441-6215

Nevada
Iz: Robert Salcido (acting) 702/687-4800
Hep B: Robert Salcido 702/687-4800
VFC: Vener Defriez 702/687-4800

NV, Clark County
Hep B: Donna Clark 702/383-1494

NV, Washoe County
Hep B: Cynthia Davis 702/328-2487

New Hampshire
Iz: Michael Dumond 603/271-4482
Hep B: Sheila Lazzaro 603/271-3572
VFC: Sandra Kelsey 603/271-4634

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

New Mexico
Iz: Liane Hostler 505/827-2465
Hep B: Liane Hostler 505/827-2465
VFC: Roger Brumley 505/827-2898

New York
Iz: David Lynch 518/473-4437
Hep B: Judy Ewing 518/474-1944
VFC: Martha Newcomb 518/474-4578

NY, NYC
Iz: Arsenia Delgato 212/676-2239
Hep B: Davis Thanjan 718/520-8245
VFC: Dileep Sarecha 212/676-2298

North Carolina
Iz: Barbara Sterritt 919/715-6777
Hep B: Sheree Smith 919/715-6760
VFC: Barbara Laymon 919/715-6764

North Dakota
Iz: Patrick Flanagan 701/328-4556
Hep B: Patrick Flanagan 701/328-4556
VFC: Patrick Flanagan 701/328-4556

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

Oklahoma
Iz: Vacant 405/271-4073
Hep B: Leonard Lang 405/271-4073
VFC: Dorothy Cox 405/271-4073

Oregon
Iz: Lorraine Duncan 503/731-4135
Hep B: Amanda Timmons 503/731-4564
VFC: Jerilyn Gilbert 503/731-4267

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

PA, Philadelphia
Iz: James Lutz 215/685-6749
Hep B: Patricia Witte 215/685-6748
VFC: James Lutz 215/685-6740

Rhode Island
Iz: Susan Shepardson 401/222-4603
Hep B: Patricia Raymond 401/222-5921
VFC: Ron Fielder 401/222-4628

South Carolina
Iz: Jesse Greene 803/898-0460
Hep B: Donna Weaver 803/898-0460
VFC: Jesse Greene 803/898-0460

South Dakota
Iz: Jason Osborne 605/773-3737
Hep B: Jason Osborne 605/773-3737
VFC: Jason Osborne 605/773-3737

Tennessee
Iz: William Narramore 615/741-7343
Hep B: Thomas Finke 615/532-8509
VFC: Diane Bass 615/532-8513

Texas
Iz: Robert Crider Jr. 512/458-7284
Hep B: Sharon Duncan 512/458-7284
VFC: Jack Sims 512/458-7284

TX, Houston
Iz: Vacant 713/794-9267
Hep B: Lupe Chronister 713/794-9266

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

Utah
Iz: Richard Crankshaw 801/538-9450
Hep B: Mary DeFond 801/538-9450
VFC: Kathy Hoenig 801/538-9450

Vermont
Iz: Jerry Harmon 802/863-7638
Hep B: Marilyn Proulx 802/863-7305
VFC: Jerry Harmon 802/863-7638

Virginia
Iz: James Farrell 804/786-6246
Hep B: Marie Krauss 804/786-6246
VFC: Vacant 804/786-6246

Washington
Iz: Margaret Hansen (acting) 360/236-3595
Hep B: Betty Williams 360/236-3442
VFC: Katherine Harris-Wollburg 360/236-3513

West Virginia
Iz: Samuel Crosby Jr. 304/558-2188
Hep B: Beverly Littman 304/558-2188
VFC: Jeff Necuzzi 304/558-2188

Wisconsin
Iz: Dan Hopfensperger 608/266-1339
Hep B: Marjorie Hurie 608/266-8621
VFC: David King 608/266-3128

Wyoming
Iz: C. Phil Caves 307/777-6001
Hep B: David Baran 307/777-7466
VFC: Roberta Smith 307/777-7487

Territories

American Samoa
Iz: Sylvia Tauiliili 011/684/633-4606

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

Guam
Iz: Ron Balajadia 671/735-7143
Hep B: Ron Balajadia 671/735-7143

Mariana Islands
Iz: Mariana Sablan 011/670/234-8950 x2004

Republic of the Marshall Islands
Iz: Nora Kilmaj-Saul 011/692/625-3480
Hep B: Helen Jetnil 011/692/625-3480

Puerto Rico
Iz: Esteban Calderon 787/274/5612
Hep B: Carmen Rodriguez 787/274/ 5532
VFC: Ivette Gonzales 787/274-5616

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

Virgin Islands
Iz: B. Schulterbrandt 809/776/8311x2151
Hep B: B. Schulterbrandt 809/776/8311x2151

Coalition Catalog

Publications and resources

- **All of our materials are camera ready, copyright free, and reviewed by national experts!**
- **You can order one of any item and make as many copies as you need (including videos).**
- **Everything costs $1 unless otherwise stated.**
- **★ Starred items are available in foreign languages.**
- **To order materials, see instructions on page 26.**
- **Join the Coalition for 1999 with a $50 membership and we will send you ALL of our print materials. See the order form for details on page 27.**

Before you order, REMEMBER...

A $50.00 annual membership brings you camera-ready copies of ALL of the Coalition's print materials. See the order form or the back page for information on how to join!

Brochures for your patients

Immunizations for babies. A picture of the shot schedule (4/98). *Item #P4010*

★ **After the shots...what to do if your child has discomfort.** Available in English, Spanish, Cambodian, Chinese, Farsi, Hmong, Korean, Laotian, Russian, Tagalog, Vietnamese (2/97). *Item #P4015*

Are you 11–19 years old? Then you need to be vaccinated! Covers all vaccinations for teenagers (4/98). *Item #P4020*

Questions parents ask about baby shots. A brochure about childhood vaccinations (10/97). *Item #P4025*

Vaccinations for adults—you're never too old for shots! A visual table covering all adult vaccinations (10/97). *Item #P4030*

★ **Immunizations...not just kids' stuff.** Adult immunization brochure. Available in English, Spanish, Chinese (2/97). (For matching poster, see page 26. Poster available only in English.) *Item #P4035*

Shots for adults with HIV. A visual table of shots needed for HIV-positive adults (7/97). *Item #P4041*

NEW! **Vaccinations for adults with hepatitis C.** This one-page sheet describes vaccinations that HCV-positive adults need (10/98). *Item #P4042*

★ **When do children and teens need shots?** A picture of the shot schedule. Available in English, Spanish (4/98). *Item #P4050*

★ ***New translations!*** **All kids need hepatitis B shots.** A brochure that tells parents all children birth–18 years old need hepatitis B shots. Available in English, Spanish, Armenian, Cambodian, Chinese, Farsi, Hmong, Japanese, Korean, Laotian, Portuguese, Romanian, Russian, Samoan, Somali, Tagalog, Vietnamese (4/98). *Item #P4055*

★ **Chickenpox isn't just an itchy, contagious rash.** A brochure for all ages. Available in English, Spanish (12/95). *Item #P4070*

★ **Hepatitis A is a serious disease... should you be vaccinated?** A brochure for all ages. Available in English, Spanish (10/97). *Item #P4080*

★ **Questions frequently asked about hepatitis B.** Four pages of commonly asked questions. Available in English, Spanish (9/96). *Item #P4090*

★ **Every week hundreds of teens are infected with hepatitis B.** A brochure for teens and parents. Available in English, Spanish, Cambodian, Chinese, Hmong, Korean, Laotian, Russian, Tagalog, Vietnamese (5/97). *Item #P4100*

★ **Hepatitis B shots recommended for all new babies.** A brochure for parents of newborns. Available in English, Spanish, Cambodian, Chinese, Hmong, Korean, Laotian, Russian, Vietnamese (1/96). *Item #P4110*

★ ***New translation!*** **Every week thousands of sexually active people get hepatitis B.** A hepatitis B brochure for adults. English and Spanish. Thanks to the California Immunization Branch (4/98). *Item #P4112*

Hepatitis B . . . 100 times easier to catch than HIV. A brochure for men who have sex with men (2/97). *Item #P4115*

You don't have to go all the way to get hepatitis A. A brochure for men who have sex with men (7/97). *Item #P4116*

NEW! **Thousands of teens have hepatitis B.** Information for teens who have chronic HBV infection. Written by S.J. Schwarzenberg, MD, University of MN; and K. Wainwright, RN, Alaska Area Native Health Service, Anchorage, AK (10/98). *Item #P4118*

★ **If you are a hepatitis B carrier...** Describes how hep B carriers can take care of themselves and protect others from hepatitis B infection. Available in English, Spanish, Chinese, Hmong (12/95). *Item #P4120*

Revised! **Packet of hepatitis B and adoption information.** Includes information from adoption specialists throughout the United States. *Item #P4152 - $5*

★ **Hepatitis B information for adults and children from endemic areas.** Encourages testing and vaccination. Available in English, Cambodian, Chinese, Hmong, Korean, Laotian, Russian, Tagalog, Vietnamese. *Item #P4170*

Materials for your clinic staff

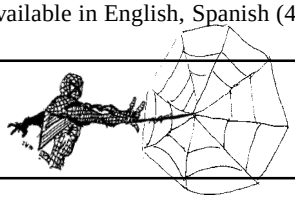
Summary of rules for childhood immunization. A two-sided reference table on appropriate use, scheduling, and contraindications of vaccines (4/98). *Item #P2010*

Revised! **Summary of recommendations for adult immunization.** A two-sided reference table on appropriate use, scheduling, and contraindications of vaccines (10/98). *Item #P2011*

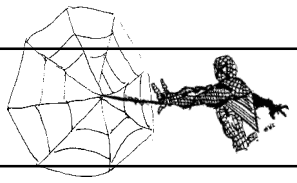
Pneumococcal vaccine: who needs it and who needs it again. A one-page Q and A with a table about revaccination (4/98). *Item #P2015*

Vaccine handling, storage, and transport. (9/96). *Item #P2020*

Ask the experts. Written by CDC experts. Includes questions and answers on routine immunization published in past issues of *NEEDLE TIPS. Item #P2021 - $5*



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



Revised! **Vaccine administration record for children and teens.** Keep children and teens' immunization records on this one-page sheet in the front of their medical charts (8/98). *Item #P2022*

Revised! **Vaccine administration record for adults.** Keep adult patients' immunization records on this one-page sheet in the front of their medical charts (8/98). *Item #P2023*

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

Hospitals & doctors sued for failing to immunize. Seven lawsuits against physicians and hospitals (12/94). *Item #P2060*

Revised! **Recommended child and adult dosages of the two brands of hepatitis A and B vaccines** (10/98). *Item #P2081*

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

Hepatitis B and the health care worker. A one-page Q and A about how to protect health care workers, includes post-exposure prophylaxis guidelines (4/98). *Item #P2109*

Basic knowledge about hepatitis B. A list of high-risk groups, interpretation of the hepatitis B panel, and tests to diagnose chronic hepatitis B, C, and D (4/98). *Item #P2110*

Basic facts about adult hepatitis B. A list of adult high-risk groups, interpretation of the hepatitis B panel, and tests to diagnose chronic hepatitis B, C, and D (11/97). *Item #P2112*

Universal prenatal screening for hepatitis B (by D. Freese, MD, Mayo Clinic, Rochester, MN). Reviews neonatal transmission and screening rationale (2/93). *Item #P2120*

Sample hospital perinatal protocols. For HBsAg screening on labor and delivery units and hepatitis B immunization in newborn nurseries (12/95). *Item #P2130*

Does your patient have chronic hepatitis B? (by C. Smith, MD, Minnesota Gastroenterology, Minneapolis, MN). One page Q and A plus table on HBV markers and their significance (10/97). *Item #P2162*

Management of chronic hepatitis B in children and/or adults. Four liver experts share their management guidelines for chronic hepatitis B: H. Conjeevaram, MD, University of Chicago, IL (1/97); C. Smith, MD, Minnesota Gastroenterology, Minneapolis, MN (1/97); B.J. McMahon, MD, Alaska Area Native Health Service, Anchorage, AK (12/95); S.J. Schwarzenberg, MD, University of MN (8/94). *Item #P2164 - $5*

Revised! **Tracking hepatitis B patients and household contacts.** Manual tracking system for high-risk families (10/98). *Item #P2180*

Kid art. Immunization artwork (babies, bears, balloons, etc.) you can use to make your own brochures, posters, etc. (9/96). *Item #P3015 - $5*

How to operate a community-based shot clinic. A packet of resource materials to help you start or run an immunization clinic (10/97). *Item #P3040 - $5*

★ **Screening questionnaire for child and teen immunization.** A form for the patient's parent/guardian to fill out to help staff evaluate which vaccines can be given at that day's visit (12/95). Available in English, Spanish, Chinese, Hmong. *Item #P4060*

★ **Screening questionnaire for adult immunization.** A form your adult patients fill out to help you evaluate which vaccines can be given at that day's visit. Available in English, Spanish (2/97). *Item #P4065*

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

Videos for your clinic staff

How to Protect Your Vaccine Supply (**Ice, Champagne, and Roses**) (CA Department of Health, MN Department of Health, 1996, 15 min). This "how-to" video also covers varicella and hepatitis A vaccines. Comes with accompanying print material. *Item #V2010 - $10*

Vaccine Administration Techniques (CA Department of Health, 1989, 18 min). A refresher course on the correct techniques for administering vaccines. Comes with accompanying print material. *Item #V2020 - $10*

When to Immunize, When to Wait (CA Department of Health, 1995, 22 min). Features CDC's immunization expert, Dr. William Atkinson. Includes accompanying materials. *Item #V2030 - $10*

In Praise of the Public Health Nurse! (IAC, 1994, 31 min). Features Margaret Morrison, MD, Miss. Dept. of Health, who stresses that immunization is a team effort. Comes with printed material. *Item #V2040 - $10*

Videos for teens and pre-teens

PRICE BREAK! **Immunization Day!** (UCLA, 1997, 13 min). An attention-holding vaccination video for middle-school students. *Item #V2050 - ~~$10~~ $5* (For the complete curriculum, see **Immunization Plus** next page.)

Partnership for Prevention (SKB, 1995, 6 min). A hepatitis B video for 11– and 12–year olds. May be shown in classrooms, clinics, etc., but may not be broadcast on television. *Item #V3012 - $10*

Get the Facts, Then Get the Vax (ASHA, 1995, 6 min). A hepatitis B video for high school students. *Item #V3015 - $10*

Videos for Asians and Pacific Islanders

★ **Family Album** (UCLA, 1997, 15 min). A video to encourage S.E. Asian parents to immunize their children on time. Available in English, Cambodian, Hmong, Laotian, and Mien. Comes with a booklet and poster. *Item #V4000 - $10/each*

Our Family, Our Strength (ALF, 1986, 19 min). A doctor discusses hepatitis B with a pregnant Asian woman who is HBsAg-positive. Her extended family is present. On the same cassette, Dr. W. T. London counsels a pregnant woman who is a hepatitis B carrier. *Item #V4001 - $10*

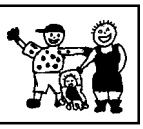
★ **Kev Koom Siab - Immunization and Hepatitis B Information** (KTCI-TV, 1992, 54 min). In Hmong with English subtitles. *Item #V4020 - $10*

★ **Hepatitis B - A Family's Story** (1995, 15 min). A hepatitis B video dubbed into Cambodian. Promotes testing and vaccination. Includes English script. *Item #V4025 - $10*

★ **Benh viem gan B va gia dinh bac Tam - Hepatitis B and Uncle Tam's Family** (Vietnamese Community Health Promotions, 1995, 16 min). A top-notch Vietnamese hepatitis B video with English script. *Item #V4030- $10*

(continued on page 26)

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



Photos, slides, posters, T-shirts, and more

PRICE BREAK! **Immunization Plus** (UCLA 1997). A middle school curriculum on immunization. Contains a teacher-training video, manual, worksheets, and the upbeat video, **Immunization Day**, to show the kids. Music by Coolio. *Item #R2051 - ~~$25~~ $10*

BONUS INCLUDED! **Work together and "catch-up" the children** (H.A.P.I. Kids, San Diego, CA, 1997). Order this video and "how-to" manual for vaccinating Asian and Pacific Islander American (APIA) children against hepatitis B, and we'll also send you two free items: **1) APIA hepatitis B "catch up" demonstration materials** from three U.S. projects and **2) Hepatitis B training materials for APIA bilingual workers** (video, slide set, and manual) to train health educators to give presentations to API communities on hepatitis B. This $45 value for $10 is offered only while supplies last! *Item #R2052 - ~~$45~~ $10*

Photo notebook of vaccine-preventable diseases. Includes 19 full-page color photos of children and adults with vaccine-preventable diseases and simple text that describes the diseases. Perfect for taking out into the community to give presentations. Outreach workers love it! (9/97). *Item #R2053 - $75*

★ **Vaccine-preventable diseases slide set and script.** Includes 30 slides of children and adults with vaccine-preventable diseases. Suitable for use by public health departments, community outreach workers, nursing schools, and medical teaching programs. Comes with English and/or Spanish scripts. Every clinic should have a set of these slides (9/96). *Item #S3010 - $25*

Teen poster! **Roll up your sleeves!** Full-color 11" x 17" poster of a diverse trio of kids showing off their hepatitis B shots! *Item #Q2010 - 10 posters for $1 (order in units of 10)*

Adult poster! **Immunizations..not just kids' stuff.** A two-color 7" x 14" adult poster. Hang this poster up in every exam room. *Item #Q2020 - 10 posters for $1 (order in units of 10).* The companion brochure is on page 24.

T-shirts! **VACCINATE ADULTS!** We wear them and everyone wants one. Be an activist and wear this immunization message in your neighborhood and workplace! Comes in black or purple with flamingo pink lettering on front and back. 100% heavyweight cotton. *Item # T3005* - Sizes M, L, XL, XXL *$15*, Children's 6–8 *$10* ♦

"Don't go into the community without it!"

Pertussis is a vaccine-preventable disease

Photo Notebook of Vaccine-Preventable Diseases

This perfect "picture book" was developed with help from outreach workers who say it is ideal for taking out in the community. This three-ring notebook includes:

- 19 full-page color photographs of children and adults with vaccine-preventable diseases
- simple text that describes all vaccine-preventable diseases

BEST SELLER!

*Item #R2053 - $75**

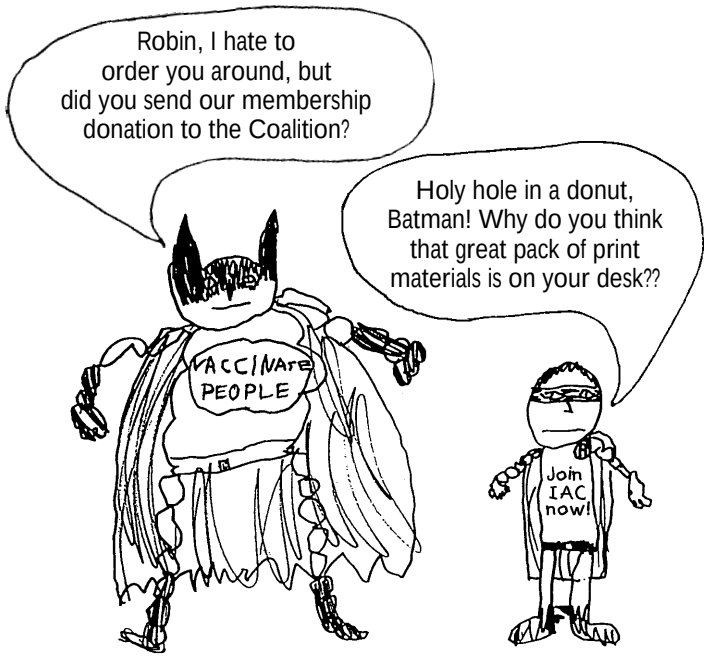
Also available as a slide set for $25. See Item #S3010 above.

READ THIS BEFORE YOU ORDER!

Join the Coalition for 1999! With a $50 membership, we will send you a complete package of all our print materials in the languages you specify.

Ordering Information

- All of our materials are camera ready, copyright free, and reviewed by national experts!
- You can order one of any item and make as many copies as you need (including our videos).
- Minimum order/donation $10, please.
- We request prepayment by check. Purchase orders accepted. Sorry, no credit cards.
- Checks must be in U.S. dollars.
- The order form or a photocopy must accompany your check or purchase order.
- Our Federal ID Number is 41-1768237.
- Orders are shipped via fourth class mail. No charge for shipping and handling within the U.S.
- Expect delivery in approximately 3 weeks.



Payment, Shipping, and Handling Information

Minimum order/donation $10. We request prepayment by check. Purchase orders accepted. Sorry, no credit cards. Checks must be in U.S. dollars. Order form or a photocopy must accompany check or P.O. (Our Federal ID# is 41-1768237). Orders shipped via fourth class mail. No charge for shipping or handling within the United States. 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

Before you order, remember: *A $50 annual membership includes camera-ready copies of ALL of the Coalition's print materials.*

Languages English Spanish	**Ar:** Armenian	**Hm**: Hmong	**Mi:** Mien	**Sa:** Samoan
	Ca: Cambodian	**Ja:** Japanese	**Po:** Portuguese	**So:** Somali
	Ch: Chinese	**Ko:** Korean	**Ro:** Romanian	**Ta:** Tagalog
	Fa: Farsi	**La:** Laotian	**Ru:** Russian	**Vi:** Vietnamese

Name/Title

Organization

Shipping address — City ( )

State — Zip — Telephone

Customer ID code (on line above name on mailing label) — E- mail address

Qty. — **Amt.**

Brochures for your patients

___ P4010 Immunizations for babies ..... $1 _____
___ P4015 After the shots: what to do if your child has discomfort:
☐English ☐Spanish ☐Ca ☐Ch ☐Fa
☐Hm ☐Ko ☐La ☐Ru ☐Ta ☐Vi ..... $1/ea _____
___ P4020 Are you 11–19? Then you need to be vaccinated! ..... $1 _____
___ P4025 Questions parents ask about baby shots ..... $1 _____
___ P4030 Vaccinations for adults ..... $1 _____
___ P4035 Immunizations...not just kids' stuff:
☐English ☐Spanish ☐Ch ..... $1/ea _____
___ P4041 Shots for adults with HIV ..... $1 _____
___ P4042 Vaccinations for adults with hepatitis C ..... $1 _____
___ P4050 When do children and teens need shots:
☐English ☐Spanish ..... $1/ea _____
___ P4055 All kids need hepatitis B shots: ☐English ☐Spanish
☐Ar ☐Ca ☐Ch ☐Fa ☐Hm ☐Ja ☐Ko ☐La
☐Po ☐Ro ☐Ru ☐Sa ☐So ☐Ta ☐Vi ..... $1/ea _____
___ P4070 Chickenpox isn't just an itchy, contagious rash:
☐English ☐Spanish ..... $1/ea _____
___ P4080 Hepatitis A is a serious disease, should you be vaccinated?
☐English ☐Spanish ..... $1/ea _____
___ P4090 Questions frequently asked about hepatitis B:
☐English ☐Spanish ..... $1/ea _____
___ P4100 Every week hundreds of teens are infected with hep B:
☐English ☐Spanish ☐Ca ☐Ch ☐Hm
☐Ko ☐La ☐Ru ☐Ta ☐Vi ..... $1/ea _____
___ P4110 Hepatitis B shots recommended for all new babies:
☐English ☐Spanish ☐Ca ☐Ch ☐Hm
☐Ko ☐La ☐Ru ☐Vi ..... $1/ea _____
___ P4112 Every week thousands of sexually active people get hep B:
☐English ☐Spanish ..... $1 _____
___ P4115 Hepatitis B is 100 times easier to catch than HIV ..... $1 _____
___ P4116 You don't have to go all the way to get hepatitis A ..... $1 _____
___ P4118 Thousands of teens have hepatitis B ..... $1 _____
___ P4120 If you are a hepatitis B carrier:
☐English ☐Spanish ☐Ch ☐Hm ..... $1/ea _____
___ P4152 Packet of hepatitis B and adoption information ..... $5 _____
___ P4170 Hep B information for adults *&* children from endemic areas:
☐English ☐Ca ☐Ch ☐Hm ☐Ko ☐La ☐Ru ☐Ta ☐Vi ..... $1/ea _____

Materials for your clinic staff

___ P2010 Summary of rules for childhood immunization ..... $1 _____
___ P2011 Summary of recommendations for adult immunization ..... $1 _____
___ P2015 Pneumococcal vaccine: who needs it, who needs it again? ..... $1 _____
___ P2020 Vaccine handling, storage, and transport ..... $1 _____
___ P2021 Ask the experts ..... $5 _____
___ P2022 Vaccine administration record for children and teens ..... $1 _____
___ P2023 Vaccine administration record for adults ..... $1 _____
___ P2045 Tips to improve your clinic's immunization rates ..... $1 _____
___ P2060 Hospitals & doctors sued for failing to immunize ..... $1 _____
___ P2081 Recommended dosages of hep A and hep B vaccines ..... $1 _____
___ P2100 No risk?? No way!! ..... $1 _____
___ P2109 Hepatitis B and the health care worker ..... $1 _____
___ P2110 Basic knowledge about hepatitis B ..... $1 _____
___ P2112 Basic facts about adult hepatitis B ..... $1 _____
___ P2120 Universal prenatal screening for hepatitis B ..... $1 _____
___ P2130 Sample hospital perinatal protocols ..... $1 _____
___ P2162 Does your patient have chronic hepatitis B? ..... $1 _____
___ P2164 Management of chronic hepatitis B in children/adults ..... $5 _____
___ P2180 Tracking hepatitis B patients and contacts ..... $1 _____
___ P3015 Kid art ..... $5 _____
___ P3040 How to operate a community-based shot clinic ..... $5 _____
___ P4060 Screening questionnaire for child & teen immunization:
☐English ☐Spanish ☐Ch ☐Hm ..... $1/ea _____
___ P4065 Screening questionnaire for adult immunization:
☐English ☐Spanish ..... $1/ea _____
___ P4140 Sample letter explaining hep B test results to patients ..... $1 _____

Videos for your clinic staff

___ V2010 How to Protect Your Vaccine Supply ..... $10 _____
___ V2020 Vaccine Administration Techniques ..... $10 _____
___ V2030 When to Immunize, When to Wait ..... $10 _____
___ V2040 In Praise of the Public Health Nurse! ..... $10 _____

Videos for teens and pre-teens

___ V2050 Immunization Day! ..... ~~$10~~ $5 _____
___ V3012 Partnership for Prevention ..... $10 _____
___ V3015 Get the Facts, Then Get the Vax ..... $10 _____

Videos for Asians and Pacific Islanders

___ V4000 Family Album: ☐English ☐Ca ☐Hm ☐La ☐Mi ..... $10/ea _____
___ V4001 Our Family, Our Strength ..... $10 _____
___ V4020 *Hmong:* Kev Koom Siab (with English subtitles) ..... $10 _____
___ V4025 *Cambodian:* Hepatitis B - A Family's Story ..... $10 _____
___ V4030 *Vietnamese:* Benh viem gan B va gia dinh bac Tam ..... $10 _____

Photos, slides, posters, T-shirts, and more

___ R2051 Immunization Plus ..... ~~$25~~ $10 _____
___ R2052 Work together and "catch-up" the children (HAPI Kids) ..... ~~$45~~ $10 _____
I would like to receive the free bonus items: ☐Yes ☐No
___ R2053 Photo notebook of vaccine-preventable diseases ..... $75 _____
___ S3010 30 slides of vaccine-preventable diseases-script included,
check which language(s) you need ☐English ☐Spanish ..... $25 _____
___ Q2010 "Roll up your sleeves!" adolescent hep B poster ..... 10/$1 _____
___ Q2020 "Immunizations..not just kids' stuff," adult poster ..... 10/$1 _____
___ T3005 **T-shirts** "VACCINATE ADULTS!"
Color: ☐Purple ☐Black Size: ☐M ☐L ☐XL ☐XXL ..... $15 _____
Color: ☐Purple ☐Black Size: ☐Children's 6–8 ..... $10 _____

Total $ _____

Please Join the Coalition!

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

I appreciate *NEEDLE TIPS.* Here's my contribution to help defray costs ($25 suggested) ..... $ _____

I want to join the Coalition for 1999

❑ I am a new member ❑ I am a renewing member

Here is my 1999 membership contribution

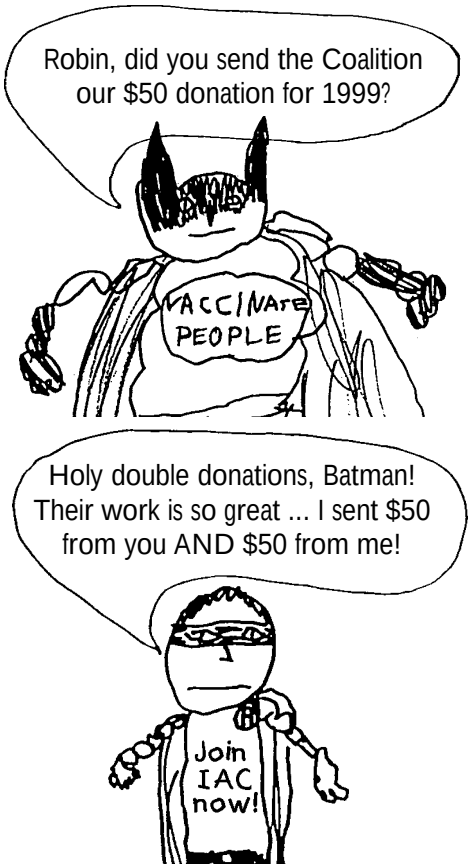
❑$50 ❑$25 ❑$100 ❑$250 $ _____ other .... $ _____

❑ I'm joining the Coalition at a $50 level or higher so please send me all of your print materials in English. I also would like to receive whatever translations you have in:
❑ Spanish ❑ Ar ❑ Ca ❑ Ch ❑ Fa ❑ Hm ❑ Ja ❑ Ko
❑ La ❑ Po ❑ Ro ❑ Ru ❑ Sa ❑ So ❑ Ta ❑ Vi

Grand Total $ _____

(All contributions to the Coalition are tax deductible to the full extent of the law.)

Batman and Robin are joining the Coalition ... How about you?



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

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

Thank you for your educational grants!
- Abbott Diagnostics
- American Pharmaceutical Association
- Aviron
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- Medical Arts Press
- Merck & Co.
- North American Vaccine
- Pasteur Mérieux Connaught
- SmithKline Beecham
- Wyeth-Lederle Vaccines and Pediatrics

Dear Reader:

This marks our 26th issue of ***NEEDLE TIPS & the Hepatitis B Coalition News!*** As always, this publication is filled with information that can help you do an even better job making sure your patients (children and adults) are fully immunized. Everything in ***NEEDLE TIPS*** is reviewed for technical accuracy by the Centers for Disease Control and Prevention (CDC) with additional help from our Advisory Board members.

NEEDLE TIPS now contains a new feature, ***"Unprotected people...death and disease that could have been prevented."*** This feature will consist of personal testimonials, case reports, and reprints of newspaper articles about people who suffered the consequences of vaccine-preventable diseases. If you'd like to receive reports such as these via your e-mail throughout the year (not just twice a year in ***NEEDLE TIPS),*** sign up for ***IAC EXPRESS,*** our free Internet news service and these stories along with immunization news and hepatitis B treatment news will be delivered to you electronically.

To sign up for ***IAC EXPRESS,*** send a message to **express@immunize.org** and place the word SUBSCRIBE in the "Subject:" field. Your name will be added to our list.

Internet users: Make sure you visit us at **www.immunize.org** Thousands of visitors are dropping in every month to download our free patient and clinician educational print materials, including current and past issues of ***NEEDLE TIPS.*** They also drop in to read *"Ask the Experts"* and to find out what's new in immunization and hepatitis B treatment. All of our materials are camera ready and copyright free.

Your support inspires us! We appreciate and need the membership contributions that many of you (almost 2,000!) generously provided to the Coalition in 1998. We hope that many more of you will join for 1999. With a contribution of $50 or more, we'll send you a complete packet of our print materials which includes many new and revised items. Won't you please join or rejoin today?

Deborah L. Wexler MD

Deborah L. Wexler, MD
Executive Director

❒ Here's my 1999 membership contribution to the Immunization Action Coalition!

Name/Title: _____

Organization: _____

Address: _____

City/State/Zip: _____

Phone and E-mail: _____

____$50 ____$25 ____$100 ____$250 ____$500 ____other

❒ I'm joining at a $50 or higher level so please send me your print materials in:
❒English ❒Spanish ❒Armenian ❒Cambodian ❒Chinese ❒Farsi ❒Hmong ❒Japanese ❒Korean ❒Laotian ❒Mien ❒Portuguese ❒Romanian ❒Russian ❒Samoan ❒Somali ❒Tagalog ❒Vietnamese

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Immunization Action Coalition
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