Why do I need a flu shot? I'm only 59 years old!

They don't call me “Dr. Doogie Hauser” for nothin', Grandpa! No matter what your age, you need a flu shot every fall if you have heart, lung, or kidney disease, diabetes, hemoglobinopathy, immunosuppression or if you’re a health care worker, a pregnant woman in her 2nd or 3rd trimester, live in a chronic care facility... (See page 5 for more info.)

Ask the Experts

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.

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.

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.

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

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.

What needle length is recommended for subcutaneous and intramuscular vaccines for 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, a 1- to 1 ½-inch needle is recommended, depending on muscle mass.

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).

(continued on page 8)

VACCINATE ADULTS!
A bulletin for adult medicine specialists from the Immunization Action Coalition
Highlighting the latest developments on routine adult immunization and chronic hepatitis B virus infection.

What's Inside?
Vaccine highlights .................................................. 3
Vaccinations for adults with hepatitis C virus ........ 4
Summary of rules for adult immunization .......... 5
Dosage schedule of hepatitis A and B vaccines .... 7
It’s federal law! .................................................... 10
Coalition order form ............................................... 11
Join the Coalition! .................................................. 12

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

Varicella vaccine saves adults’ lives
Each year in the United States, 4 million persons suffer from varicella, more than 10,000 are hospitalized and 100 die. While the burden of varicella is greatest among children, adults have higher risks of complications and death. Adults account for less than 10% of varicella cases but they are 10-15 times more likely to be hospitalized and 20-30 times more likely to die from varicella than children. Complications in adults include pneumonia, infections, bleeding disorders and a 1% risk of birth defects in the fetus if a pregnant woman is infected with varicella during the first 20 weeks of pregnancy.

The Advisory Committee on Immunization Practices highlights priority adult groups for vaccination including health care workers, family members of immunocompromised persons and persons at high risk of exposure such as teachers of young children, college students, residents and staff in institutional settings and nonpregnant women of childbearing age. Since children are the usual source of infection, susceptible adults with young children should ensure that they, as well as their children, receive this vaccine. Varicella deaths in three young mothers in 1997 underscored the importance of susceptible parents being protected through vaccination (MMWR 1997; 46,409-412).

A reliable history of varicella is considered a valid measure of immunity. Adults without a history of disease can be tested to determine immune status or can be vaccinated without testing. However, since 70–80% of adults with a negative or uncertain history are actually immune, serologic testing is likely to be cost effective. The substantial health burden from varicella contracted during adulthood is now vaccine preventable. The Centers for Disease Control and Prevention (CDC) urges you to provide varicella vaccine to your susceptible adults as well as children and adolescents.

—Walter A. Orenstein, MD
Assistant Surgeon General
Director, National Immunization Program, CDC

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.

“UNPROTECTED PEOPLE”
For stories and case reports of people who died or suffered from vaccine-preventable diseases:

www.immunize.org/stories/

VACCINATE ADULTS!

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

VACCINATE ADULTS! is a publication of the Immunization Action Coalition. Everything herein is reviewed for technical accuracy by the Centers for Disease Control and Prevention (unless it is an opinion piece written by a non-CDC author). VACCINATE ADULTS! is written for physicians, nurses, and other health professionals in the public and private sectors. Circulation is 110,000.

Co-Editors:
Deborah L. Wexler, MD
Margaret Vaillancourt

Publication Assistants:
Lynn Bahta, RN
Linda Boerger-Johnson
Kim Klose
Mary Borck

Artwork:
Izzy and Sarah Wexler-Mann
New York State Health Department

Layout & Design:
Creative Training & Consulting

Website Design: Lantern Web™

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. Your contribution will be used to continue sending you VACCINATE ADULTS! See the back page for details about how to join.

Every year in the United States more than 3,000 adults are hospitalized due to varicella infection.

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 Obstetricians/Gynecologists’ 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.

“UNPROTECTED PEOPLE”
For stories and case reports of people who died or suffered from vaccine-preventable diseases:

www.immunize.org/stories/

Doctor says influenza has not gone away
Influenza has not gone away! In fact, the pneumonia and influenza mortality from 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 as well as pneumococcal vaccine to all high-risk groups. Programs for delivery of vaccines need to be integrated to improve delivery to all segments of the population. The use of vaccine registries in place for many of the vaccines administered to young children can be extended to high-risk persons of all ages. Such registries have the capability to send yearly notices and reminders for influenza vaccine to all high-risk patients and to improve pneumococcal vaccine coverage as recommended.

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.

“Adults and children with asthma also need to be vaccinated against influenza and are often overlooked. Respiratory illnesses in asthmatic people can trigger prolonged asthmatic illnesses, steroid use, hospital stays, and loss of time from work and/or school. Please remind your high-risk patients to come in for vaccination, and, as recommended, vaccinate patients’ family members as well.”

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

Editors' note: The information on this page is current as of October 12, 1998.

The next ACIP meetings...
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 Morbidity and Mortality Weekly Report (MMWR). To find out how to get a complete set of ACIP statements or just the ones you want, call CDC’s Immunization Hotline at 800/232-2522.

ACIP statements released in 1998 include:
• 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/flu/flu.pdf or obtained by calling the immunization program manager at your state health department.

Hepatitis B news
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.

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. Among adults aged 20 years and older, the increased risk for tetanus was nearly sevenfold that for persons aged 5–19 years and twofold that for persons aged 20–59 years.”

Vaccine safety news
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 (e.g., 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/nccdod/diseases/hepatitis/b/hebqafhn.htm

---

Advisory Board

William L. Atkinson, MD, MPH
Liaison, National Immunization Program, CDC
Virginia Burggraff, MSN, RN
American Nurses Association, Washington, DC
Arthur Chen, MD
Alameda Co. Health Department, Oakland, CA
Moon S. Chen, Jr., PhD, MPH
Ohio State University
Richard D. Clover, MD
University of Louisville
Deborah K. Freese, MD
Mayo Clinic, Rochester, MN
Stanley A. Gall, MD
University of Louisville
Pierce Gardner, MD
State University of New York, Stony Brook
Gregory P. Gilmet, MD, MPH
American Association of Health Plans
Bob S. Gomberg, MD
Wayne State University
John D. Grabenstein, MS Pharm, EdM
Immunofacts, Durham, NC
Caroline Breese Hall, MD
University of Rochester
Neal A. Halsey, MD
Johns Hopkins University
Hie-Won L. Hann, MD
Jefferson Medical College
Norbert Hirschhorn, MD
Minnesota Department of Health
Neal Holtan, MD, MPH
St.Paul Ramsey Co. Public Health, St.Paul, MN
Margaret K. Hostetter, MD
University of Minnesota
Robert M. Jacobson, MD
Mayo Clinic, Rochester, MN
Jeri A. Jenista, MD
Adoption Medical News, Ann Arbor, MI
Samuel L. Katz, MD
Duke University Medical Center
Anne Kuettel, PhD
St.Paul Ramsey Co. Public Health, St.Paul, MN
B. U. K. Li, MD
Ohio State University
Anna S.-F. Lok, MD
University of Michigan
Virginia R. Lupo, MD
Hennepin Co. Medical Center, MPLS, MN
Edgar K. Marcuse, MD, MPH
University of Washington School of Medicine
Harold S. Margolis, MD
Liaison, Hepatitis Branch, CDC
Christine C. Masson
Eastern Virginia Medical School
James McCord, MD
Children’s Health Care - St. Paul, MN
Brian J. McMahon, MD
Alaska Native Medical Center, Anchorage, AK
Margaret Morrison, MD
Mississippi Department of Health
Paul A. Offit, MD
Children’s Hospital of Philadelphia
Gregory A. Poland, MD
Mayo Clinic, Rochester, MN
Gary Remafedi, MD, MPH
University of Minnesota
Thomas N. Saari, MD
University of Wisconsin
William Schaffner, MD
Vanderbilt University
Neil R. Schram, MD
Kaiser Permanente, Harbor City, CA
Sarah Jane Schwarzenberg, MD
University of Minnesota
Coleman L. Smith, MD
Minnesota Gastroenterology, Minneapolis, MN
Raymond A. Strikas, MD
Liaison, National Immunization Program, CDC
Myron J. Tong, PhD, MPH
Hastings Memorial Hosp., Pasadena, CA
Walter W. Williams, MD
Liaison, Assoc. Director for Minority Health, CDC
Richard K. Zimmerman, MD, MPH
University of Pittsburgh
Deborah L. Wexler, MD
Executive Director

---
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.

<table>
<thead>
<tr>
<th>Vaccination</th>
<th>Recommendation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis A*</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>first dose now</td>
<td>second dose 6-12 months later</td>
</tr>
<tr>
<td>Hepatitis B*</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>first dose now</td>
<td>second dose one month later</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Influenza “flu shot”</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Tetanus, diphtheria (Td)</td>
<td>If you haven't had at least 3 basic tetanus-diphtheria shots in your lifetime, you need to complete the series listed below:</td>
<td>All adults need a booster dose every 10 years</td>
</tr>
<tr>
<td></td>
<td>first dose now</td>
<td>second dose 4 weeks later</td>
</tr>
<tr>
<td>Measles, mumps, rubella</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Varicella for those who have never had chickenpox</td>
<td>first dose now</td>
<td>second dose 4-8 weeks later</td>
</tr>
</tbody>
</table>

* 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.
# 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

<table>
<thead>
<tr>
<th>Vaccine name</th>
<th>For whom it is recommended</th>
<th>What is the usual schedule?</th>
<th>Schedule for those who have fallen behind</th>
<th>Contraindications and precautions*</th>
<th>Rules of simultaneous administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza</strong></td>
<td>“flu shot”</td>
<td>• 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 2nd 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.</td>
<td>• 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).</td>
<td>May be given anytime during the influenza season.</td>
<td>• Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. • Moderate or severe acute illness.</td>
</tr>
</tbody>
</table>

**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.

Routine as per health care providers. Give as soon as need is recognized. 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.

Three doses are needed. If the series is delayed between doses, do not repeat the series over. Continue from where you left off. 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: Vaccination is only recommended 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. If dose #2 is delayed, do not repeat dose #1. Just give dose #2. 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](http://www.immunize.org) to make sure you have the most current copy.
<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>For whom it is recommended</th>
<th>What is the usual schedule?</th>
<th>Schedule for those who have fallen behind</th>
<th>Contraindications and precautions*</th>
<th>Rules of simultaneous administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Td (Tetanus, diphtheria)</td>
<td>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. Give IM</td>
<td>Booster dose every 10 years after completion of the primary series of 3 doses.</td>
<td>The primary series is 3 doses: • Give dose #2 four wks after #1. • #3 is given 6-12 months after #2.</td>
<td>• Previous anaphylactic reaction to this vaccine or to any of its components. • Moderate or severe acute illness.</td>
<td>Can give with all others but at a separate site.</td>
</tr>
<tr>
<td>MMR (Measles, Mumps, Rubella)</td>
<td>Adult 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. Give SQ</td>
<td>Dose #2, if recommended, is given no sooner than 4 wks after dose #1.</td>
<td>#2 may be given as early as 4 wks after dose #1.</td>
<td>• 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.</td>
<td>Can give with all others but at a separate site.</td>
</tr>
<tr>
<td>Varicella (Var) “Chickenpox shot”</td>
<td>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. Give SQ</td>
<td>Two doses are needed. Give dose #2 4-8 weeks after dose #1.</td>
<td>Give dose #2 no sooner than 4 wks after #1.</td>
<td>• Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy, or possibility of pregnancy within 1 month. • Immunocompromised persons due to malignancies and primary or acquired 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.</td>
<td>Can give with all others but at a separate site.</td>
</tr>
<tr>
<td>Polio vaccine IPV</td>
<td>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. Give IM or SQ</td>
<td>Refer to ACIP recommendations regarding unique situations, schedules, and dosing information. If polio vaccine is indicated for adults, IPV is generally preferred.</td>
<td>Refer to ACIP recommendations.</td>
<td>* Note: While moderate or severe acute illness is reason to postpone vaccination, mild acute illness is not.</td>
<td>Refer to ACIP recommendations. Can give with all others but at a separate site.</td>
</tr>
</tbody>
</table>

* 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. 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.

“I follow the rules of the road. If you follow the rules of immunization, you won’t get lost!”
Hepatitis A & B Vaccines

Make sure you give your patients the correct dose!

### Recommended dosages and schedules of hepatitis A vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age group</th>
<th>Dose</th>
<th>Volume</th>
<th># Doses</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Havrix</strong></td>
<td>2-18 years</td>
<td>720 El.U.*</td>
<td>0.5 ml</td>
<td>2</td>
<td>0, 6-12 months</td>
</tr>
<tr>
<td>(SmithKline Beecham)</td>
<td>19 years and older</td>
<td>1440 El.U.*</td>
<td>1.0 ml</td>
<td>2</td>
<td>0, 6-12 months</td>
</tr>
<tr>
<td><strong>Vaqta</strong></td>
<td>2-17 years</td>
<td>25 U**</td>
<td>0.5 ml</td>
<td>2</td>
<td>0, 6-18 months</td>
</tr>
<tr>
<td>(Merck &amp; Co.)</td>
<td>18 years and older</td>
<td>50 U**</td>
<td>1.0 ml</td>
<td>2</td>
<td>0, 6 months</td>
</tr>
</tbody>
</table>

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

### Recommended dosages of hepatitis B vaccines*

<table>
<thead>
<tr>
<th>Vaccine brand</th>
<th>Age group</th>
<th>Dose</th>
<th>Volume</th>
<th># Doses</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engerix-B</strong></td>
<td>0-19 years</td>
<td>10 µg</td>
<td>0.5 ml</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>(SmithKline Beecham)</td>
<td>20 years and older</td>
<td>20 µg</td>
<td>1.0 ml</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Recombivax HB</strong></td>
<td>0-19 years</td>
<td>5 µg</td>
<td>0.5 ml</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>(Merck &amp; Co.)</td>
<td>20 years and older</td>
<td>10 µg</td>
<td>1.0 ml</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

* 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.

Holy shot in the arm, Batman! How many times do I have to tell you? YOU NEVER START THE SERIES OVER AGAIN!

**Never start the series over! Never! Never! Never!**
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.

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.

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 pneumococcal vaccine, the patient’s verbal history can be used to determine vaccination status. Persons with uncertain or unknown vaccination status should be vaccinated.

Hepatitis B

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

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.

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?

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 (>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., >10 mIU/mL), then he/she should be protected against HBV infection. In the interim, barrier precautions should be used.

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

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.
**Hepatitis A**

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

I understand that it is safe for pregnant women to receive hepatitis B vaccine. Is there evidence that hepatitis A vaccine is safe for these women? In the United States, hepatitis A vaccine is 94%-100% immunogenic. The development of a 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.

---

**Check your state...**

Here are the current U.S. immunization rates from the BRFSS* (MMWR, 10/2/98).

<table>
<thead>
<tr>
<th>State</th>
<th>Influenza**</th>
<th>Pneumococcal†</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>62.6</td>
<td>47.5</td>
</tr>
<tr>
<td>AK</td>
<td>58.3</td>
<td>39.2</td>
</tr>
<tr>
<td>AZ</td>
<td>72.9</td>
<td>59.4</td>
</tr>
<tr>
<td>AR</td>
<td>61.1</td>
<td>39.1</td>
</tr>
<tr>
<td>CA</td>
<td>65.5</td>
<td>49.8</td>
</tr>
<tr>
<td>CO</td>
<td>74.4</td>
<td>53.3</td>
</tr>
<tr>
<td>CT</td>
<td>67.2</td>
<td>43.0</td>
</tr>
<tr>
<td>DE</td>
<td>68.6</td>
<td>52.6</td>
</tr>
<tr>
<td>DC</td>
<td>54.3</td>
<td>32.3</td>
</tr>
<tr>
<td>FL</td>
<td>62.3</td>
<td>45.5</td>
</tr>
<tr>
<td>GA</td>
<td>58.5</td>
<td>48.5</td>
</tr>
<tr>
<td>HI</td>
<td>71.1</td>
<td>51.7</td>
</tr>
<tr>
<td>ID</td>
<td>66.4</td>
<td>50.2</td>
</tr>
<tr>
<td>IL</td>
<td>67.8</td>
<td>44.7</td>
</tr>
<tr>
<td>IN</td>
<td>62.5</td>
<td>38.0</td>
</tr>
<tr>
<td>IA</td>
<td>69.7</td>
<td>51.5</td>
</tr>
<tr>
<td>KS</td>
<td>61.5</td>
<td>43.7</td>
</tr>
<tr>
<td>KY</td>
<td>61.2</td>
<td>38.6</td>
</tr>
<tr>
<td>LA</td>
<td>58.4</td>
<td>32.2</td>
</tr>
<tr>
<td>ME</td>
<td>72.1</td>
<td>50.0</td>
</tr>
<tr>
<td>MD</td>
<td>63.4</td>
<td>41.0</td>
</tr>
<tr>
<td>MA</td>
<td>66.0</td>
<td>52.7</td>
</tr>
<tr>
<td>MI</td>
<td>63.6</td>
<td>45.6</td>
</tr>
<tr>
<td>MN</td>
<td>69.0</td>
<td>48.3</td>
</tr>
<tr>
<td>MS</td>
<td>61.1</td>
<td>45.9</td>
</tr>
<tr>
<td>MO</td>
<td>70.3</td>
<td>44.3</td>
</tr>
<tr>
<td>MT</td>
<td>68.4</td>
<td>50.8</td>
</tr>
<tr>
<td>NE</td>
<td>65.8</td>
<td>49.8</td>
</tr>
<tr>
<td>NV</td>
<td>56.5</td>
<td>53.5</td>
</tr>
<tr>
<td>NH</td>
<td>64.6</td>
<td>49.6</td>
</tr>
<tr>
<td>NJ</td>
<td>60.7</td>
<td>33.9</td>
</tr>
<tr>
<td>NM</td>
<td>72.8</td>
<td>50.1</td>
</tr>
<tr>
<td>NY</td>
<td>64.5</td>
<td>38.9</td>
</tr>
<tr>
<td>NC</td>
<td>64.6</td>
<td>50.6</td>
</tr>
<tr>
<td>ND</td>
<td>64.8</td>
<td>40.8</td>
</tr>
<tr>
<td>OH</td>
<td>65.4</td>
<td>38.5</td>
</tr>
<tr>
<td>OK</td>
<td>69.3</td>
<td>40.4</td>
</tr>
<tr>
<td>OR</td>
<td>69.8</td>
<td>55.9</td>
</tr>
<tr>
<td>PA</td>
<td>65.8</td>
<td>47.1</td>
</tr>
<tr>
<td>RI</td>
<td>67.7</td>
<td>43.0</td>
</tr>
<tr>
<td>SC</td>
<td>74.3</td>
<td>41.6</td>
</tr>
<tr>
<td>SD</td>
<td>65.6</td>
<td>40.6</td>
</tr>
<tr>
<td>TN</td>
<td>69.1</td>
<td>45.0</td>
</tr>
<tr>
<td>TX</td>
<td>68.0</td>
<td>44.4</td>
</tr>
<tr>
<td>UT</td>
<td>66.1</td>
<td>48.5</td>
</tr>
<tr>
<td>VT</td>
<td>69.5</td>
<td>51.6</td>
</tr>
<tr>
<td>VA</td>
<td>67.7</td>
<td>53.6</td>
</tr>
<tr>
<td>WA</td>
<td>70.3</td>
<td>51.6</td>
</tr>
<tr>
<td>WV</td>
<td>58.2</td>
<td>41.3</td>
</tr>
<tr>
<td>WI</td>
<td>66.1</td>
<td>42.6</td>
</tr>
<tr>
<td>WY</td>
<td>72.4</td>
<td>50.9</td>
</tr>
</tbody>
</table>

*BRFSS: Behavioral Risk Factor Surveillance System is a random-digit-dialed telephone survey of U.S. adults to gather data. (MMWR, 10/2/98)

**Percentage of 265-year-olds who report receiving influenza vaccine in the past year.

†Percentage of 265-year-olds who report ever having received pneumococcal vaccine.
It’s federal law!!

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

The following article was written by Neal A. Halsey, MD, Director, Institute for Vaccine Safety (IVS), Johns Hopkins School of Public Health. IVS is committed to investigating vaccine safety issues and providing information on vaccine safety to health care providers, journalists, and the public. Visit their website at www.vaccinesafety.edu

As readers of VACCINATE ADULTS!' 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 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 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. 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 to your patients.

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 vaccinee about the risks and benefits of each vaccine.

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

Use of the VIS is mandatory!

Before a health care provider vaccinates an adult patient, you are legally required to give him/her a copy of the most current Vaccine Information Statement (VIS).

Before you administer an MMR, varicella, hepatitis B, Td, or polio vaccine to your adult patient, you are legally required to give him/her a copy of the most current Vaccine Information Statement (VIS).

Foreign language versions of VISs are not officially available from the CDC. However, several states make VISs available in non-English versions. Check with your state health department first before you do any of the following:

• California’s Immunization Branch distributes VISs (except influenza and pneumococcal) in 15 languages: Armenian, Cambodian, Chinese, Farsi, Hmong, Japanese, Korean, Laotian, Portuguese, Romanian, Russian, Spanish, Samoan, Tagalog, and Vietnamese. 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.

What to do with the VISs

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

1. Before you administer any doses of MMR, varicella, hepatitis B, Td, or polio vaccine to your adult patients, you are legally required to give them a copy of the most recent Vaccine Information Statement (VIS). 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. It is imperative that you have the most current VIS.

Most current versions of VISs

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

**MMR** 6/10/94  **Td** 6/10/94  **varicella** 2/1/96  **polio** 2/1/96  **hepatitis B** 5/1/96  **pneumococcal** 7/29/97  **hepatitis A** 8/25/98  **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. It takes 4–6 weeks to process your order.

Where to get adult immunization resources

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

**Centers for Disease Control & Prevention**

- Immunization Information Hotline: 800/232-2522
- Immunization website: www.cdc.gov/nip
- Hepatitis Information Hotline: 888/443-7232
- Hepatitis website: www.cdc.gov/niddk/diseases/hepatitis/index

**Immunization Action Coalition**

Immunization and hepatitis B treatment information: 651/647-9009  www.immunize.org

**Hepatitis Foundation International**

- 800/891-0707  www.heplf.org

**Hepatitis B Foundation**

- 215/489-4900  www.hepb.org

**Nat’l Coalition for Adult Immunization**

- 301/656-0003

**Health Care Financing Administration**

- 816/426-5233

**Vaccine Adverse Event Reporting System**

- 800/822-7967
Adult Catalog

Publications and resources

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

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

Please join us today!

Payment, shipping, and handling information
• Minimum order/donation $10.
• We request payment by check. Purchase orders are acceptable. Sorry, no credit cards.
• Checks must be in U.S. dollars.
• Order form (or a copy) must accompany check or purchase order.
• Our Federal ID number is 41-1768237.
• Orders shipped via fourth class mail. No charge for shipping or handling within the U.S.
• Expect delivery in approximately three weeks.

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

Name/Title
Organization
Shipping address
City/State/Zip
Telephone  E-mail address

Customer ID code (see the line above your name on the mailing label)

Adult Catalog and Order Form

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Brochures for your patients</th>
<th>Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
<tr>
<td>___</td>
<td>____________________________________________________________</td>
<td>$ _______</td>
</tr>
</tbody>
</table>

Summary of rules for adult immunization $1
Pneumococcal vaccine: who needs it? $1
Vaccine handling, storage, and transport $1
Vaccine administration record for adults $1
Tips to improve your clinic's immunization rates $1
Hospitals & doctors sued for failing to immunize $1
REvised! Recommended dosages of Hep A and B vaccines $1
No risk?? No way!! $1
Hepatitis B and the health care worker $1
Basic facts about Hepatitis B $1
Does your patient have chronic Hepatitis B? $1
Management of chronic Hepatitis B $5
Tracking hepatitis B patients and contacts $1
Sample letter explaining Hep B test results to patients $1

Materials for your clinic staff
P2011 Revised! Summary of rules for adult immunization $1
P2015 Pneumococcal vaccine: who needs it? $1
P2020 Vaccine handling, storage, and transport $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 Revised! Recommended dosages of Hep A and 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
P2162 Does your patient have chronic Hepatitis B? $1
P2164 Management of chronic Hepatitis B $5
P2180 Tracking hepatitis B patients and contacts $1
P4065 Screening questionnaire for adult immunization $1/ea
P4109 Questions frequently asked about Hepatitis B $1/ea
P4116 You don't have to go all the way to get Hepatitis A $1
P4115 Hep B....100 times easier to catch than HIV (a brochure for men who have sex with men) $1
P4117 NEW! Information for teens with chronic hepatitis B $1
P4118 NEW! Information for teens with chronic hepatitis B $1
P4120 If you are a Hepatitis B carrier $1/ea
P4140 Sample letter explaining Hep B test results to patients $1

Videos, T-shirts, and posters for your clinic
V2010 Video “How to Protect Your Vaccine Supply” $10
V2020 Video “Vaccine Administration Techniques” $10
Q2020 Poster “Immunizations...not just kids' stuff.” $10/100
T3005 T-shirts “VACCINATE ADULTS!” (in pink lettering) $15
Color: Purple Black Blue Green White Red Orange Yellow Brown $15

Immunizations...not just kids' stuff...and for adults
P4010 Hepatitis A is serious...should you be vaccinated? $1/ea
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
P2116 Does your patient have chronic Hepatitis B? $1
P2117 NEW! Information for teens with chronic hepatitis B $1
P4140 Sample letter explaining Hep B test results to patients $1

Please Join the Coalition!
This is the total amount for the materials I'm ordering. $ ______
I appreciate VACCINATE ADULTS! Here's my contribution to help defray costs ($25 suggested) $ ______

Here is my 1999 membership contribution

$40 $75 $100 $250 $ ______ other $ ______

I'm joining the Coalition at a $40 level or higher so please send me all of your materials above in English, including videos. I also would like to receive whatever translations you have in: Spanish Japanese English Russian Tagalog Vietnamese

(Contributions are tax deductible to the full extent of the law.)

Grand Total $ ______

Sign me up for “IAC Express”

Sign me up for IAC Express (our free e-mail news service). M y e-mail address is

(I’ll write my e-mail address VERY LEGIBLY so that I can be added to your list!)
Dear Reader:
The Immunization Action Coalition (IAC) has mailed this issue of VACCINATE ADULTS! to you and nearly 110,000 other health professionals. Reviewed for technical accuracy by the Centers for Disease Control and Prevention, all the materials inside VACCINATE ADULTS! are camera ready and copyright free. Please copy and share them with your patients and clinic staff. We believe VACCINATE ADULTS! will help you do an even better job of making sure your patients are fully immunized.

We also want to let you know about our new Internet project, “UNPROTECTED PEOPLE,” a collection of personal testimonials, case reports, and newspaper articles about people who suffered or died from vaccine-preventable diseases such as influenza, pneumococcus, and hepatitis B. These stories are sent via e-mail to subscribers of our free Internet news service, IAC EXPRESS.

At the time of this writing, we have over 2,400 subscribers to IAC EXPRESS! If you have access to the Internet, I encourage you, too, to subscribe. Just send a message to express@immunize.org and place the word SUBSCRIBE in the “Subject:” field. Once you are a subscriber, you will receive “UNPROTECTED PEOPLE” as well as other timely vaccine and hepatitis B treatment news via e-mail.

If you can, make sure you visit our website: www.immunize.org Thousands of visitors drop in every month to download our free patient and clinician educational print materials and to find out what’s new in immunization and hepatitis B treatment. You can also download current and past issues of VACCINATE ADULTS!

Readers, we appreciate and need the 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 $40 or more, we’ll send you a packet of our adult-focused print materials and two vaccination videos (one on vaccine administration techniques and one on vaccine storage and handling). Won’t you please join or rejoin today?

I’m one step ahead of you, Mr. Noonan. I’ve already sent my membership contribution for 1999!

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 substantial federal grant.

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

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