

# VACCINATE ADULTS!

A bulletin for adult medicine specialists from the Immunization Action Coalition

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

## Ask the Experts

*Editor's note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH, and Andrew T. Kroger, MD, MPH, of the Centers for Disease Control and Prevention (CDC) for answering the following questions for our readers. Dr. Atkinson is a medical epidemiologist, and Dr. Kroger is a medical officer, both at CDC's National Immunization Program.*

### Immunization questions

by William L. Atkinson, MD, MPH, and Andrew T. Kroger, MD, MPH

#### Which adults should receive Tdap?

A one-time dose of Tdap should replace Td for any adult younger than age 65 years either as part of a primary series or as a booster. Certain adults should get Tdap with an interval of 2 years or less if they are 1) a parent or caregiver of a child less than age 1 year, 2) a healthcare worker having direct patient contact, or 3) at risk for pertussis due to increased pertussis activity or during outbreaks.

### Immunization questions?

- Call the CDC-INFO Contact Center at (800) 232-4636 or (800) CDC-INFO
- Email [nipinfo@cdc.gov](mailto:nipinfo@cdc.gov)
- Call your state health dept. (phone numbers at [www.immunize.org/coordinators](http://www.immunize.org/coordinators))

#### Which Tdap products can be used in adults?

Adacel® (sanofi pasteur) is licensed for use in persons ages 11–64 years. Boostrix® (GlaxoSmith-Kline) is licensed for use in persons 10–18 years. For persons ages 65 years and older, neither product is licensed, so Td should be used in this age group whenever needed.

#### Can Tdap be given as part of wound management?

Yes, if the vaccinee is younger than age 65 years and has not received Tdap previously.

#### Can we give Tdap at the same visit as other vaccines?

Yes. It can be given with all other vaccines. Each vaccine dose should be administered using a separate syringe.

#### If adults have a history of pertussis disease, should they receive Td rather than Tdap?

No. Although well-documented (e.g., culture confirmed) pertussis disease is likely to confer at least temporary immunity against pertussis, the duration of such immunity is unknown, but is probably at

least 5 years. As a general rule, adults with an indication for Tdap should receive it regardless of a history of pertussis disease. However, if the illness was recent (less than 5 years) and the diagnosis was certain (i.e., culture confirmed) it is reasonable to wait 3–5 years before administration of Tdap, unless tetanus and diphtheria toxoids are needed.

#### What are the new CDC recommendations for influenza vaccination of healthcare personnel?

Influenza vaccination coverage of healthcare personnel (HCP) remains low. Because HCP provide care to patients at high risk for complications of influenza, HCP should be considered a high priority for receiving vaccination. Achieving high vaccination coverage among HCP will protect staff and their patients and reduce disease burden and healthcare costs.

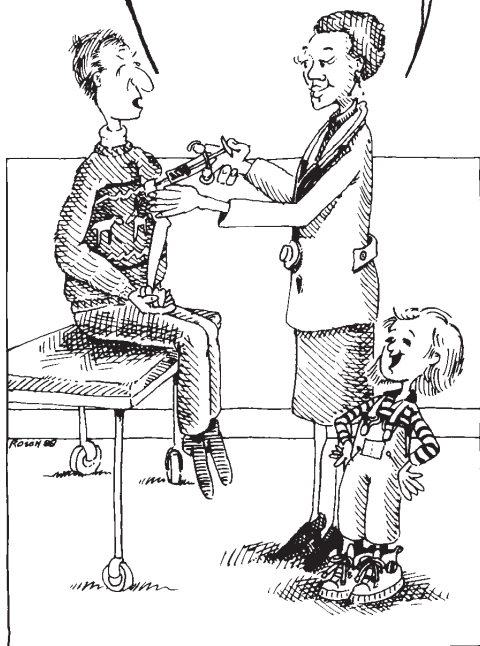
On Feb. 24, 2006, CDC devoted an entire *MMWR Recommendations and Reports* to influenza vaccination of HCP. These new recommendations are summarized in the following points:

- All HCP should be educated regarding the benefits of influenza vaccination and the potential health consequences of influenza illness for themselves and their patients.
- Influenza vaccine should be offered annually to all eligible HCP to protect staff, patients, and family members and to decrease HCP absenteeism. Use of either available vaccine (inactivated or live, attenuated influenza vaccine [TIV or LAIV]) is recommended for eligible persons. During periods when TIV is in short supply, use of LAIV is especially encouraged when feasible for eligible HCP.
- Provide influenza vaccination to HCP at the work site and at no cost as a component of employee health programs. Use strategies that have been demonstrated to increase influenza vaccine acceptance, including vaccination clinics, mobile carts, vaccination access during all work shifts, and modeling and support by institutional leaders.
- Obtain a signed declination from HCP who decline influenza vaccination for reasons other than medical contraindications.
- Monitor HCP influenza vaccination coverage and

(continued on page 4)

Why do I need another tetanus shot? I had one just four years ago when I was 60.

This new combination vaccine also protects people from whooping cough. Since you're planning to help take care of your daughter's baby, Tdap vaccine is recommended for you now. If you pass whooping cough to the baby, it could endanger her life.



Artwork courtesy of New York State Department of Health

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## Vaccinate Adults!

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IAC, a 501(c)3 nonprofit organization, publishes practical immunization information for health professionals to help increase immunization rates and prevent disease.

The Hepatitis B Coalition, a program of IAC, promotes hepatitis B vaccination for all persons 0–25 years; HBsAg screening for all pregnant women; testing and vaccination for high-risk groups; and education and treatment for people chronically infected with hepatitis B virus.

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# Vaccine Highlights

## Recommendations, schedules, and more

*Editor's note: The information on this page is current as of May 8, 2006.*

### ACIP recommendations

The Advisory Committee on Immunization Practices (ACIP) advises CDC on the appropriate use of vaccines and periodically issues public health recommendations on vaccine use. Clinicians who vaccinate should have a current set for reference. Published in the *Morbidity and Mortality Weekly Report (MMWR)*, ACIP recommendations are easily available. Here are sources:

- Download them from links on IAC's website: [www.immunize.org/acip](http://www.immunize.org/acip).
- Download them from CDC's website: [www.cdc.gov/nip/publications/acip-list.htm](http://www.cdc.gov/nip/publications/acip-list.htm).
- Call the CDC-INFO Contact Center at (800) CDC-INFO [(800) 232-4636].

#### Recently published ACIP recommendations:

- "Influenza Vaccination of Health-Care Personnel" (2/24/06; issued jointly by ACIP and the Healthcare Infection Control Practices Advisory Committee)

CDC has begun posting provisional ACIP recommendations at [www.cdc.gov/nip/recs/provisional\\_rec](http://www.cdc.gov/nip/recs/provisional_rec). Provisional recommendations are those ACIP has voted on but that are not yet approved by CDC or the Department of Health and Human Services, and not yet published in *MMWR*.

### Influenza news

On Feb. 24, CDC published "Influenza Vaccination of Health-Care Personnel," a joint publication of ACIP and the Healthcare Infection Control Practices Advisory Committee. These recommendations apply to healthcare workers in hospitals, nursing homes, skilled nursing facilities, physicians' offices, urgent care centers, and outpatient clinics, and to persons who provide home health care and emergency medical services. The recommendations are available at [www.cdc.gov/mmwr/pdf/tr/tr5502.pdf](http://www.cdc.gov/mmwr/pdf/tr/tr5502.pdf).

### Tdap vaccine news

In Oct. 2005, ACIP voted to recommend that adults up to age 65 years be vaccinated with the newly licensed adult booster tetanus, diphtheria, and pertussis vaccine (Tdap). Under the ACIP recommendation, Tdap

would replace one dose in the currently recommended tetanus-diphtheria vaccine used as the adult booster. The new recommendation to vaccinate adults has not yet been made official by publication in *MMWR*; the provisional ACIP recommendation is available at [www.cdc.gov/nip/vaccine/tdap/tdap\\_adult\\_rec.pdf](http://www.cdc.gov/nip/vaccine/tdap/tdap_adult_rec.pdf).

### Hepatitis B news

In Oct. 2005, ACIP voted to recommend hepatitis B vaccination for all unvaccinated adults at risk for HBV infection and for all adults seeking protection from HBV infection. This new recommendation has not yet been made official by publication in *MMWR*; the provisional recommendation is available at [www.cdc.gov/nip/recs/provisional\\_rec/hepB\\_adult.pdf](http://www.cdc.gov/nip/recs/provisional_rec/hepB_adult.pdf).

### Mumps news

On April 14, CDC released a health advisory about the ongoing mumps outbreak in Iowa and other states. Links to the Health Advisory and mumps outbreak and control information are available at [www.cdc.gov/nip/diseases/mumps/default.htm](http://www.cdc.gov/nip/diseases/mumps/default.htm).

### CDC resources

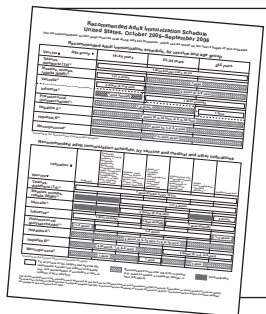
A CD-ROM titled "Immunization Works" is available free of charge from CDC's National Immunization Program. The CD contains all ACIP recommendations published before Jan. 1, 2006; the Pink Book; a complete set of VISs; and much more. It can be ordered online until July 1 at [www2.cdc.gov/nch-stp\\_od/PIWeb/niporderform.asp](http://www2.cdc.gov/nch-stp_od/PIWeb/niporderform.asp).

The 9th edition of the CDC textbook, "Epidemiology and Prevention of Vaccine-Preventable Diseases" (the Pink Book) is now available online at [www.cdc.gov/nip/publications/pink/default.htm](http://www.cdc.gov/nip/publications/pink/default.htm) (please refer to [www.cdc.gov/nip/publications/pink/def\\_pink\\_errata.htm](http://www.cdc.gov/nip/publications/pink/def_pink_errata.htm) for a listing of errata and updates that have been identified since this edition was published in January 2006). The Pink Book gives immunization providers comprehensive information about routinely recommended vaccines, vaccine-preventable diseases, and more. A paper copy is available from the Public Health Foundation for \$29. For ordering information, go to: [bookstore.phf.org/product\\_info.php?cPath=45&products\\_id=463](http://bookstore.phf.org/product_info.php?cPath=45&products_id=463).

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## Laminated adult immunization schedules Order one of each for every exam room

IAC's version of the CDC/AAFP/ACOG-approved adult schedule is laminated for heavy-duty use, complete with essential footnotes, and printed in color for easy reading. The cost is \$5 each for the 4-sided adult schedule. For five or more copies, contact us for discount pricing.



To order by fax or mail, use the order form on page 11.

For more information or to order online, go to [www.immunize.org/immschedules](http://www.immunize.org/immschedules).

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## Do you vaccinate adults or children?

Then your practice needs this training video!



**"Immunization Techniques:  
Safe, Effective, Caring"**  
developed by  
California Dept. of Health Services  
Immunization Branch

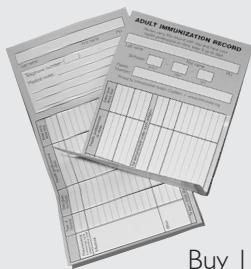
Available in videotape (VHS) or DVD format. Each comes with presenter's notes and a skills checklist.

Cost is \$30 for VHS video; \$35 for DVD. For 20 or more copies, contact us for discount pricing. For more information or to order online, visit [www.immunize.org/iztech](http://www.immunize.org/iztech).

To order by fax or mail, use the order form on page 11.

Questions? Email [admin@immunize.org](mailto:admin@immunize.org) or call (651) 647-9009.

## Immunization record cards for adults!



Give all your adult patients a permanent vaccination record card from IAC. Printed on rip-proof, smudge-proof, water-proof paper, this durable canary-yellow card is sized to fit in a wallet alongside other important cards. To view the card, visit [www.immunize.org/adultzcards/adultzcard.pdf](http://www.immunize.org/adultzcards/adultzcard.pdf).

Buy 1 box (250 cards) for \$35 (first order of a 250-card box comes with a 30-day money-back guarantee)

Discounts for larger orders: 2 boxes (500 cards) \$65;  
3 boxes (750 cards) \$90; 4 boxes (1000 cards) \$110

To order, visit [www.immunize.org/adultzcards](http://www.immunize.org/adultzcards), or use the order form on page 11.

(To receive sample cards, email your request to [admin@immunize.org](mailto:admin@immunize.org).)

declination at regular intervals during influenza season and provide feedback of ward-, unit-, and specialty-specific rates to staff and administration.

- Use the level of HCP vaccination coverage as one measure of a patient safety quality program.

To obtain a copy of this CDC recommendation, go to [www.cdc.gov/mmwr/pdf/rr/rr5502.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr5502.pdf).

**Want new Ask the Experts Q&As by email? IAC Express now includes them periodically. To subscribe, go to [www.immunize.org/express](http://www.immunize.org/express).**

**What can you tell me about the new vaccines against human papilloma virus and varicella zoster (shingles)?**

As of this writing, these vaccines have not yet been licensed by the FDA. To find out about vaccines in the U.S. vaccine “pipeline,” go to <http://aapred-book.aappublications.org/news/vaccstatus.shtml>.

**Hepatitis B questions**

**What will be changing in the CDC’s hepatitis B recommendations for adults?**

The recommendations for adults will be published later this year. The provisional recommendations include these significant changes:

- Hepatitis B vaccination is recommended for all unvaccinated adults at risk for hepatitis B virus (HBV) infection and for all adults seeking protection from HBV infection. Acknowledgment of a specific risk factor is not a requirement for vaccination.
- In settings where a high proportion of adults are likely to have risk factors for HBV infection, all unvaccinated adults should be assumed to be at risk and should receive hepatitis B vaccination. These settings include sexually transmitted disease treatment facilities, human immunodeficiency virus (HIV) testing facilities, HIV treatment facilities, facilities providing drug abuse treatment and prevention, correctional facilities, healthcare settings serving men who have sex with men (MSM), chronic hemodialysis facilities, end-stage renal disease programs, and institutions and nonresidential day care facilities for developmentally challenged persons.
- Standing orders should be implemented to identify and vaccinate eligible adults in primary care and specialty medical settings. If ascertainment of risk for HBV infection is a barrier to vaccination in these settings, providers may use alternative vaccination strategies, such as offering hepatitis B vaccine to all unvaccinated adults in age groups with the highest risk for infection (e.g., less than 45 years of age).

To obtain a copy of the provisional recommendations, go to [www.cdc.gov/nip/recs/provisional\\_rec/default.htm](http://www.cdc.gov/nip/recs/provisional_rec/default.htm).

As a component of immunization activities, CDC also recommends HBsAg testing of foreign-born persons from Asia, the Pacific Islands, Africa, and other HBV-endemic countries, and for case finding and management of HBsAg-positive persons.

**How do I interpret some of the common hepatitis B panel results?**

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

\*Postvaccination testing, when it is recommended, should be performed 1–2 months following the last dose of vaccine. (Infants born to HBsAg-positive mothers should be tested 3–9 months after the last dose.)

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

**Do you have patients who are HBsAg-positive?**

They need medical monitoring, including liver cancer screening; many can benefit from treatment.

The FDA licenses five medications for treatment in the United States. They are interferon alfa-2b and peginterferon alfa-2a (administered subcutaneously); and adefovir dipivoxil, entecavir, and lamivudine (administered orally).

Consult a liver specialist experienced in the treatment of viral hepatitis for appropriate monitoring guidelines and for help in determining which of your patients might benefit from treatment.



**Hepatitis A and B lab tests**

**Hepatitis A lab nomenclature**

**anti-HAV:** *Antibody to hepatitis A virus.* This diagnostic test detects total antibody of both IgG and IgM subclasses of HAV. Its presence indicates either acute or resolved infection.

**IgM anti-HAV:** *IgM antibody subclass of anti-HAV.* Its presence indicates a recent infection with HAV (6 mos or less). It is used to diagnose acute hepatitis A.

**Hepatitis B lab nomenclature**

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

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

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

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

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

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

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

# STANDING ORDERS for administering vaccines to adults and children

## Adapt these standing orders for use in your practice setting!

A few years ago, the Immunization Action Coalition (IAC) developed examples of standing orders for administering vaccines to adults. We've recently added standing orders for children and teens. Healthcare providers can easily adapt these standing orders for use in their own facilities.

The Centers for Disease Control and Prevention has reviewed all examples of IAC's standing orders for technical accuracy. All are available on IAC's website at [www.immunize.org/standingorders](http://www.immunize.org/standingorders).

## Read what others have said about the use of standing orders:

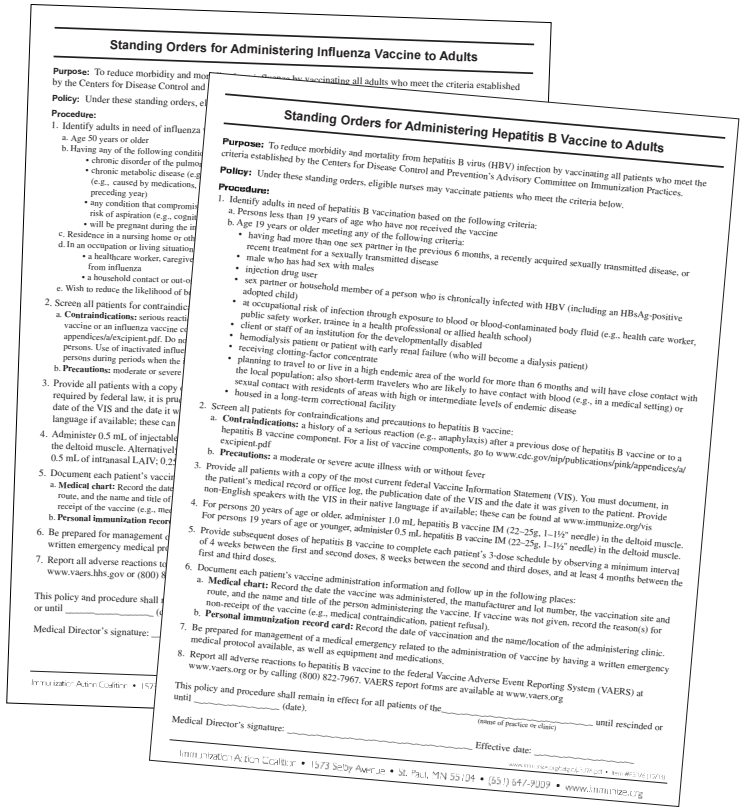
**The Advisory Committee on Immunization Practices (ACIP):** "Standing orders programs authorize nurses and pharmacists to administer vaccinations according to an institution- or physician-approved protocol without a physician's exam. Standing orders programs can be used in inpatient and outpatient facilities, long-term-care facilities, managed-care organizations, assisted living facilities, correctional facilities, pharmacies, adult workplaces, and home health-care agencies to vaccinate patient, client, resident, and employee populations."

CDC. Use of Standing Orders Programs to Increase Adult Vaccination Rates: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2000; 49 (RR01).

**The Task Force on Community Preventive Services**, convened by DHHS with support from the CDC, analyzed the peer-reviewed published evidence on interventions designed to improve the timely immunization of children and adults. Among others, the task force found the following intervention to be proven effective for office practices to improve vaccine delivery:

"Standing orders for registered nurses, physician assistants, and medical assistants that allow staff to independently screen patients, identify opportunities for immunization, and administer vaccines under physician supervision (where permissible by local regulations) are effective at raising immunization rates."

Committee on Community Health Services and Committee on Practice and Ambulatory Medicine. Increasing Immunization Coverage. *Pediatrics* 2003; 112; 994.



The following standing orders are now (or soon will be) available at [www.immunize.org/standingorders](http://www.immunize.org/standingorders):

Standing Orders	Children	Adults
Diphtheria, tetanus & acellular pertussis (DTaP) vaccine	coming soon	
<i>Haemophilus influenzae</i> type b (Hib) vaccine	✓	
Hepatitis A (HepA) vaccine	coming soon	✓
Hepatitis B (HepB) vaccine	✓	✓
Inactivated poliovirus vaccine (IPV)	✓	✓
Influenza vaccines (TIV and LAIV)	✓	✓
Measles, mumps, rubella (MMR) vaccine	✓	✓
Meningococcal vaccines (MCV and MPSV)	✓	✓
Pneumococcal conjugate vaccine (PCV)	✓	✓
Pneumococcal polysaccharide vaccine (PPV)	✓	✓
Tetanus, diphtheria & acellular pertussis (Td, Tdap) vaccine	coming soon	✓
Varicella (VAR) vaccine	✓	✓
Medical management of vaccine reactions	coming soon	✓



# Vaccinations for Adults

## You're NEVER too old to get immunized!

Getting immunized is a lifelong, life-protecting job. Don't leave your healthcare professional's office without making sure you've had all the vaccinations you need.

Vaccine ▼ Age ►	19–49 years	50–64 years	65 years & older
<b>Influenza</b>	You need a dose yearly if you have a chronic health problem,* are a healthcare worker, have close contact with certain individuals,* or you just want to avoid getting influenza.	You need a dose every fall (or winter).	
<b>Pneumococcal</b>	You need 1–2 doses if you have certain chronic medical conditions.*		You need 1 dose at age 65 (or older) if you've never been vaccinated. You may also need a 2nd dose.*
<b>Tetanus, diphtheria, pertussis (Td, Tdap)</b>	If you haven't had at least 3 tetanus-and-diphtheria-containing shots sometime in your life, you need to get them now. Start with dose #1, followed by dose #2 in 1 month, and dose #3 in 6 months. All adults need Td booster doses every 10 years. If you're younger than 65 years and haven't had pertussis-containing vaccine as an adult, one of the doses that you receive should have pertussis (whooping cough) vaccine in it—known as Tdap. Be sure to consult your health professional if you have a deep or dirty wound.		
<b>Hepatitis B (HepB)</b>	You need this vaccine if you have a specific risk factor for hepatitis B virus infection* or you simply wish to be protected from this disease. The vaccine is given as a 3-dose series (dose #1 now, followed by dose #2 in 1 month, and dose #3, usually given 5 months later).		
<b>Hepatitis A (HepA)</b>	You need this vaccine if you have a specific risk factor for hepatitis A virus infection* or you simply wish to be protected from this disease. The vaccine is given as 2 doses, 6–18 months apart.		
<b>Measles, mumps, rubella (MMR)</b>	You need at least 1 dose of MMR if born in 1957 or later. You may also need a 2nd dose.*		
<b>Varicella (Chickenpox)</b>	If you've never had chickenpox, you should get vaccinated now (2 doses, 1–2 months apart).		
<b>Meningococcal</b>	If you are a young adult going to college and plan to live in a dormitory, you need to get vaccinated against meningococcal disease. People with certain medical conditions should also receive this vaccine.		

\* Consult your healthcare professional to determine your level of risk for infection and your need for this vaccine.


**Do you travel outside the United States?** If so, you may need additional vaccines. The Centers for Disease Control and Prevention (CDC) operates an international traveler's health information line. Call (877) 394-8747 or visit CDC's website at [www.cdc.gov/travel](http://www.cdc.gov/travel) for information about your destination. You may also consult a travel clinic or your healthcare professional.

[www.immunize.org/catg.d/p4030a.pdf](http://www.immunize.org/catg.d/p4030a.pdf) • Item #P4030 (2/06)

# Are your adult patients with HIV and hepatitis C getting all the vaccinations they need?

Sometimes vaccinations are overlooked when managing patients with complex medical conditions. Please give your HIV- or HCV-infected patients copies of the educational pieces below to help them stay informed about the vaccines they need.

For a ready-to-copy 8½ x 11" version of this piece, visit [www.immunize.org/catg.d/p4041hiv.pdf](http://www.immunize.org/catg.d/p4041hiv.pdf).



**If you have HIV infection, which vaccinations do you need?**

The chart below shows which vaccinations you should have to protect your health. Make sure you and your healthcare provider keep your vaccinations up to date.


<b>Influenza</b>	<i>Yes!</i> Because your immune system is weakened, you have a greater risk of developing complications from influenza. You should get this vaccine each fall.
<b>Pneumococcal</b>	<i>Yes!</i> This vaccine is specifically recommended for you because of your HIV infection. If you haven't been vaccinated, you should get one dose now. If you were vaccinated when you were younger than age 65 and you are 65 years or older now, you should get another dose now, provided at least 5 years have passed since your first dose.
<b>Tetanus, diphtheria, pertussis (Td, Tdap)</b>	<i>Yes!</i> If you haven't had at least 3 doses of tetanus-and-diphtheria-containing shots sometime in your life, you need to start or complete a 3-dose series now. Start with dose #1, followed by dose #2 in 1 month, and dose #3 in 6 months. You'll also need a Td booster dose every 10 years. If you're younger than 65 years, your next booster dose should also contain pertussis (whooping cough) vaccine—known as Tdap. Be sure to consult your healthcare provider any time you get a deep or dirty wound.
<b>Hepatitis A (Hep A)</b>	<i>Maybe.</i> You may be at higher risk for hepatitis A virus infection if you meet certain criteria (e.g., plan to travel outside the U.S. [except for Canada, Japan, Australia, New Zealand, and Western Europe], are a man who has sex with men, are an injecting drug user). If you have any of the risk factors listed above, you'll need 2 doses of this vaccine, spaced 6–18 months apart. Discuss your need for a screening blood test with your healthcare provider.
<b>Hepatitis B (Hep B)</b>	<i>Maybe.</i> Because you are HIV positive, you may also be at risk for hepatitis B virus infection. If you haven't had a series of hepatitis B vaccinations, you need 3 doses of this vaccine. Start with dose #1 now, followed by dose #2 in 1 month, and dose #3 approximately 5 months later. If you started the 3-dose series earlier but didn't complete it, you can simply continue from where you left off. Discuss your need for screening blood tests with your healthcare provider.
<b>Measles, mumps, rubella (MMR)</b>	<i>Maybe.</i> Most adults are already protected because they got MMR vaccine as children or had measles, mumps, and rubella. If you weren't previously protected, were born in 1957 or later, and have no HIV symptoms or only mild symptoms, you need at least 1 dose of MMR. If you have moderate or severe symptoms from HIV, you should not receive MMR. If you are exposed to measles, call your healthcare provider right away. If you get measles, you are at risk of developing severe complications because of your HIV infection.
<b>Meningococcal</b>	<i>Maybe.</i> Because of your HIV infection, you may be at increased risk for meningococcal disease, a rare but sometimes fatal bacterial infection. Talk to your healthcare provider about getting vaccinated against this disease.
<b>Varicella (Chickenpox)</b>	<i>Yes!</i> Most adults are already protected because they had chickenpox as children (once you've had chickenpox, you're unlikely to get it again). If you never had chickenpox or the vaccine, you cannot receive varicella vaccine now because you are HIV infected. If you come in contact with a person who has chickenpox, call your healthcare provider right away.

**Do you travel outside the United States?** If so, you may need additional vaccines. The Centers for Disease Control and Prevention (CDC) operates an international traveler's health information line. Call (877) 394-8747 or visit CDC's website at [www.cdc.gov/travel](http://www.cdc.gov/travel) for information about your destination. You may also consult a travel clinic or your healthcare professional.

www.immunize.org/p4041hiv.pdf • Item #P4041 (2/06)

Immunization Action Coalition • 1573 Salyb Ave. • St. Paul, MN 55104 • (651) 647-9009 • [www.vaccineinformation.org](http://www.vaccineinformation.org) • [www.immunize.org](http://www.immunize.org)

For a ready-to-copy 8½ x 11" version of this piece, visit [www.immunize.org/catg.d/4042hepc.pdf](http://www.immunize.org/catg.d/4042hepc.pdf).



**If you have hepatitis C, which vaccinations do you need?**

The chart below shows which vaccinations you should have to protect your health. Make sure you and your healthcare provider keep your vaccinations up to date.

<b>Influenza</b>	<i>Probably.</i> You should receive one dose of the injectable influenza vaccine every year if you want to avoid getting sick with influenza.
<b>Pneumococcal</b>	<i>Yes!</i> This vaccine is specifically recommended for you if you have liver disease. If you haven't been vaccinated, you should get one dose now. If you've already been vaccinated and you were younger than age 65 when you got your shot, you should get another dose now, provided at least 5 years have passed since your first dose.
<b>Tetanus, diphtheria, pertussis (Td, Tdap)</b>	<i>Yes!</i> If you haven't had at least 3 tetanus-and-diphtheria-containing shots sometime in your life, you need to start or complete a 3-dose series now. Start with dose #1, followed by dose #2 in 1 month, and dose #3 in 6 months. You'll also need a Td booster dose every 10 years. If you're younger than 65 years, your next booster dose should also contain pertussis (whooping cough) vaccine—known as Tdap. Be sure to consult your healthcare provider any time you get a deep or dirty wound.
<b>Hepatitis A (Hep A)</b>	<i>Yes!</i> Chronic liver disease puts you at risk for serious complications if you get infected with the hepatitis A virus. If you've never been vaccinated against hepatitis A, you need 2 doses of this vaccine, spaced 6–18 months apart.
<b>Hepatitis B (Hep B)</b>	<i>Probably.</i> Most people with hepatitis C virus infection want to be protected against all forms of viral hepatitis to avoid liver disease complications. And if you have a risk factor for contracting hepatitis B, you should definitely be vaccinated. Discuss risk factors and vaccination with your healthcare provider. You need 3 doses of this vaccine. Start with dose #1 now, followed by dose #2 in 1 month, and dose #3 approximately 5 months later.
<b>Measles, mumps, rubella (MMR)</b>	<i>Maybe.</i> If you are an adult who was born in 1957 or later, you need at least 1 dose of MMR. Discuss your need for vaccination with your healthcare provider.
<b>Varicella (Chickenpox)</b>	<i>Maybe.</i> If you've never had the chickenpox disease, you should get vaccinated now (2 doses, 1–2 months apart).

**For more information about hepatitis C,** call the CDC-INFO Contact Center at (800) CDC-INFO (800) 232-4636, visit [www.cdc.gov/hepatitis](http://www.cdc.gov/hepatitis), or go to [www.hepprograms.org](http://www.hepprograms.org) for a listing of hepatitis C organizations. You can also call the American Liver Foundation at (800) 465-4837 ([www.liverfoundation.org](http://www.liverfoundation.org)) or the Hepatitis Foundation International at (800) 891-4707 ([www.hepif.org](http://www.hepif.org)).

**Do you travel outside the United States?** If so, you may need additional vaccines. The Centers for Disease Control and Prevention (CDC) operates an international traveler's health information line. Call (877) 394-8747 or visit CDC's website at [www.cdc.gov/travel](http://www.cdc.gov/travel) for information about your destination. You may also consult a travel clinic or your healthcare professional.

www.immunize.org/p4042hepc.pdf • Item #P4042 (2/06)

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# Summary of Recommendations for Adult Immunization

Adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP)\* by the Immunization Action Coalition, May 2006

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>• Persons age 50yrs and older.</li> <li>• Persons with medical problems (e.g., heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathy, immunosuppression) and/or people living in chronic-care facilities.</li> <li>• Persons with any condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injury, seizure disorder, or other neuromuscular disorder)</li> <li>• Persons working or living with at-risk people.</li> <li>• Women who will be pregnant during the influenza season (December–March).</li> <li>• All healthcare workers and other persons who provide direct care to at-risk people.</li> <li>• Household contacts and out-of-home caregivers of children ages 0–59m.</li> <li>• Travelers at risk for complications of influenza who go to areas where influenza activity exists or who may be among people from areas of the world where there is current influenza activity (e.g., on organized tours).</li> <li>• Persons who provide essential community services.</li> <li>• Students or other persons in institutional settings (e.g., dormitory residents).</li> <li>• Anyone wishing to reduce the likelihood of becoming ill with influenza.</li> </ul>	<ul style="list-style-type: none"> <li>• Given every year.</li> <li>• October through November is the <i>optimal</i> time to receive annual influenza vaccination to maximize protection; however vaccination may occur in December and throughout the influenza season (typically December through March) or at other times when the risk of influenza exists.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.</p> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• History of Guillain-Barré syndrome within 6wks of previous TIV</li> </ul>
<p><b>Influenza</b> Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i></p>	<ul style="list-style-type: none"> <li>• Healthy, non-pregnant persons age 49yrs and younger who meet any of the conditions listed below.               <ul style="list-style-type: none"> <li>- Working or living with at-risk people as listed in the section above.</li> <li>- Healthcare workers or other persons who provide direct care to at-risk people (except persons in close contact with severely immunosuppressed persons).</li> <li>- Household contacts and out-of-home caregivers of children ages 0–59m.</li> <li>- Travelers who may be among people from areas of the world where there is current influenza activity (e.g., on organized tours).</li> <li>- Persons who provide essential community services.</li> <li>- Students or other persons in institutional settings (e.g., dormitory residents).</li> <li>- Anyone wishing to reduce the likelihood of becoming ill with influenza.</li> </ul> </li> </ul>		<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.</li> <li>• Pregnancy, asthma, reactive airway disease or other chronic disorder of the pulmonary or cardiovascular system; an underlying medical condition, including metabolic disease such as diabetes, renal dysfunction, and hemoglobinopathy; a known or suspected immune deficiency disease or receiving immunosuppressive therapy; history of Guillain-Barré syndrome.</li> </ul> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<p><b>Pneumococcal polysaccharide (PPV23)</b> <i>Give IM or SC</i></p>	<ul style="list-style-type: none"> <li>• Persons age 65yrs and older.</li> <li>• Persons who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease, chronic liver disease, alcoholism, diabetes, CSF leak, as well as people living in special environments or social settings (including Alaska Natives and certain American Indian populations). Those at highest risk of fatal pneumococcal infection are persons with anatomic asplenia, functional asplenia, or sickle cell disease; immunocompromised persons including those with HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome; persons receiving immunosuppressive chemotherapy (including corticosteroids); and those who received an organ or bone marrow transplant and candidates for or recipients of cochlear implants.</li> </ul>	<ul style="list-style-type: none"> <li>• Routinely given as a one-time dose; administer if previous vaccination history is unknown.</li> <li>• One-time revaccination is recommended 5yrs later for persons at highest risk of fatal pneumococcal infection or rapid antibody loss (e.g., renal disease) and for persons age 65yrs and older if the 1st dose was given prior to age 65 and 5yrs or more have elapsed since the prior dose.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p> <p><b>Note:</b> Pregnancy and breastfeeding are not contraindications to the use of this vaccine.</p>

\*For specific ACIP recommendations, refer to the official ACIP statements published in *MMWR*. To obtain copies of these statements, call the CDC-INFO Contact Center at (800) 232-4636; visit CDC's website at [www.cdc.gov/nip/publications/ACIP-list.htm](http://www.cdc.gov/nip/publications/ACIP-list.htm); or visit IAC's website at [www.immunize.org/acip](http://www.immunize.org/acip).

Visit IAC's website at [www.immunize.org/adultrules](http://www.immunize.org/adultrules) to make sure you have the most current version. IAC thanks William Atkinson, MD, MPH, from CDC's National Immunization Program for his assistance.



# Summary of Recommendations for Adult Immunization (continued)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Hepatitis B</b> (Hep B) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>All adolescents; any adult wishing to obtain immunity.</li> <li>Persons at risk for sexual transmission, including persons seeking treatment for STDs, sex partners of HBsAg-positive persons, persons with more than one sex partner in the past 6m, and men who have sex with men.</li> <li>Persons at risk for transmission by percutaneous or mucosal exposure to blood, including household contacts of HBsAg-positive persons, current or recent injection drug users, healthcare and safety workers exposed to blood, hemodialysis patients, and patients whose renal disease might result in dialysis.</li> <li>All persons seen in the following settings: clinics/facilities providing care for STD, HIV/AIDS, drug abuse and harm-reduction; corrections; chronic hemodialysis; and residential/non-residential care for developmentally disabled persons.</li> <li>Certain international travelers (see <a href="http://www.cdc.gov/travel/diseases.htm">www.cdc.gov/travel/diseases.htm</a>).</li> <li>Persons with chronic liver disease, including persons with hepatitis C.</li> </ul> <p>Note: Also provide HBsAg screening for immigrants from high endemic areas.</p>	<ul style="list-style-type: none"> <li>Three doses are needed on a 0, 1, 6m schedule.</li> <li>Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m.</li> <li>There must be 4wks between doses #1 and #2, and 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3.</li> <li><b>Schedule for those who have fallen behind:</b> If the series is delayed between doses, DO NOT start the series over. Continue from where you left off.</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>For Twinrix (hepatitis A and B combination vaccine [GSK]), three doses are needed on a 0, 1, 6m schedule. Recipients must be age 18yrs or older.</p> </div>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<p><b>Hepatitis A</b> (Hep A) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<ul style="list-style-type: none"> <li>Persons who travel or work anywhere except the United States, Western Europe, New Zealand, Australia, Canada, and Japan.</li> <li>Injecting and non-injecting drug users; men who have sex with men; people with clotting-factor disorders; persons who work with hepatitis A virus in experimental lab settings (not routine medical laboratories); and food handlers when health authorities or private employers determine vaccination to be cost effective.</li> <li>Persons with chronic liver disease, including persons with hepatitis B and C.</li> <li>Anyone wishing to obtain immunity to hepatitis A.</li> </ul> <p><b>Note:</b> Prevacination testing is likely to be cost effective for persons older than age 40yrs, as well as for younger persons in certain groups with a high prevalence of hepatitis A virus infection (see persons listed in 2nd bullet above).</p>	<ul style="list-style-type: none"> <li>Two doses are needed.</li> <li>The minimum interval between dose #1 and #2 is 6m.</li> <li>If dose #2 is delayed, do not repeat dose #1. Just give dose #2.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Safety during pregnancy has not been determined, so benefits must be weighed against potential risk.</li> </ul>
<p><b>Td, Tdap</b> (Tetanus, diphtheria, pertussis) <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>All adults who lack a history of a primary series consisting of at least three doses of tetanus- and diphtheria-containing vaccine.</li> <li>A booster dose of tetanus- and diphtheria-containing toxoid may be needed for wound management as early as 5yrs after receiving a previous dose, so consult ACIP recommendations.*</li> <li>The use of single antigen tetanus toxoid instead of Td/Tdap is not recommended.</li> </ul> <p><u>For Tdap (tetanus- and diphtheria-toxoids with acellular pertussis vaccine) only:</u></p> <ul style="list-style-type: none"> <li>All adults younger than age 65yrs who have not received Tdap.</li> <li>Healthcare workers who work in hospitals or ambulatory care settings and have direct patient contact and who have not received Tdap.</li> <li>Adults in contact with infants younger than age 12m (e.g., parents, grandparents younger than age 65yrs, childcare providers, healthcare workers) and who have not received Tdap.</li> </ul>	<ul style="list-style-type: none"> <li>For persons who are unvaccinated or behind, complete the primary series with Td (spaced at 0, 1–2m, 6–12m intervals). One dose of Tdap may be used for any dose if 19–64yrs.</li> <li>Give Td booster every 10yrs after the primary series has been completed. For adults 19–64 yrs, a 1-time dose of Tdap is recommended to replace the next Td.</li> <li>Intervals of 2yrs or less between Td and Tdap may be used if needed.</li> </ul> <p><b>Note:</b> The two Tdap products are licensed for different age groups: Adacel (sanofi) for use in persons 11–64yrs and Boostrix (GSK) for use in persons 10–18yrs.</p>	<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>For Tdap only, history of encephalopathy within 7 days following DTP/DTaP.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Guillain-Barré syndrome within 6wks of receiving a previous dose of tetanus toxoid-containing vaccine.</li> <li>Unstable neurologic condition.</li> <li>Pregnancy: if ≥10yrs since prior Td, give Td in 2nd or 3rd trimester; if &lt;10 yrs, give Tdap in immediate postpartum period.</li> </ul>
<p><b>Polio</b> (IPV) <i>Give IM or SC</i></p>	<p>Not routinely recommended for persons age 18yrs and older.</p> <p><b>Note:</b> Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults can receive one booster dose if traveling to polio endemic areas.</p>	<p>Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information.</p>	<p><b>Contraindication</b> Previous anaphylactic or neurologic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>

# Summary of Recommendations for Adult Immunization (continued)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Varicella</b> (Var) (Chickenpox) <i>Give SC</i></p>	<p>All susceptible adults and adolescents should be vaccinated. It is especially important to ensure varicella immunity among household contacts of immunosuppressed persons and among healthcare workers.</p>	<ul style="list-style-type: none"> <li>• Two doses are needed.</li> <li>• Dose #2 is given 4–8wks after dose #1.</li> <li>• If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart.</li> <li>• If the second dose is delayed, do not repeat dose #1. Just give dose #2.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks (use contraception).</li> <li>• Persons immunocompromised because of malignancies and primary or acquired cellular immunodeficiency including HIV/AIDS. (See <i>MMWR</i> 1999, Vol. 48, No. RR-6.) <b>Note:</b> For those on high-dose immunosuppressive therapy, consult ACIP recommendations regarding delay time.*</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating.</li> <li>• Moderate or severe acute illness.</li> </ul> <p><b>Note:</b> Breastfeeding is not a contraindication to the use of this vaccine.</p>
<p><b>Meningococcal</b> Conjugate vaccine (MCV4) <i>Give IM</i> Polysaccharide vaccine (MPSV4) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>• College freshmen living in dormitories.</li> <li>• Adolescents and adults with anatomic or functional asplenia or with terminal complement component deficiencies.</li> <li>• Persons who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of Sub-Saharan Africa).</li> <li>• Microbiologists who are routinely exposed to isolates of <i>N. meningitidis</i>.</li> <li>• Military recruits.</li> </ul>	<ul style="list-style-type: none"> <li>• MCV4 is preferred over MPSV4 for persons age 55yrs and younger, although MPSV4 is an acceptable alternative.</li> <li>• Give one dose to persons with risk factors; revaccinate after 5yrs if risk of disease continues and previous vaccine was MPSV4.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylactic or neurologic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4).</p> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• For MCV4 only, history of Guillain-Barré syndrome.</li> </ul> <p><b>Note:</b> Pregnancy and breastfeeding are not contraindications to the use of either vaccine.</p>
<p><b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i></p>	<ul style="list-style-type: none"> <li>• Persons born in 1957 or later (including those born outside the U.S.) should receive at least one dose of MMR if there is no serologic proof of immunity or documentation of a dose given on or after the first birthday.</li> <li>• Persons in high-risk groups, such as healthcare workers, students entering college and other post–high school educational institutions, and international travelers, should receive a total of two doses.</li> <li>• Persons born before 1957 are usually considered immune, but proof of immunity (serology or vaccination) may be desirable for healthcare workers.</li> <li>• Women of childbearing age (i.e., adolescent girls and premenopausal adult women) who do not have acceptable evidence of rubella immunity or vaccination.</li> <li>• Special attention should be given to immunizing women born outside the U.S. in 1957 or later.</li> </ul>	<ul style="list-style-type: none"> <li>• One or two doses are needed.</li> <li>• If dose #2 is recommended, give it no sooner than 4wks after dose #1.</li> <li>• If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart.</li> <li>• If a pregnant woman is found to be rubella susceptible, administer MMR postpartum.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks (use contraception).</li> <li>• Persons immunocompromised because of cancer, leukemia, lymphoma, immunosuppressive drug therapy, including high-dose steroids or radiation therapy. <b>Note:</b> HIV positivity is NOT a contraindication to MMR except for those who are severely immunocompromised.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• If blood, plasma, and/or immune globulin were given in past 11m, see ACIP statement <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating.</li> <li>• Moderate or severe acute illness.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> </ul> <p><b>Note:</b> Breastfeeding is not a contraindication to the use of this vaccine. <b>Note:</b> MMR is not contraindicated if a tuberculin skin test (i.e., PPD) was recently applied. If PPD and MMR not given on same day, delay PPD for 4–6wks after MMR.</p>

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## Essential Immunization Resources

### CD-ROM of IAC print materials

FREE with a contribution of \$75 or more (see above). The CD contains all IAC's ready-to-print materials in English and any translations available in Spanish. Includes VISs in English and Spanish.

Qty.	Videos, CD, and DVD (details p. 3; discounts on bulk orders)	Amt.
___	V2010 Videotape: How to Protect Your Vaccine Supply .....	\$15
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___	V2020 Videotape: Immunization Techniques: Safe, Effective, Caring .....	\$30
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\_\_\_ R2005 Adult immunization record cards: 250 cards/box; 1 box—\$35;  
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**To access IAC print materials (and VISs in more than 30 languages), visit [www.immunize.org/free](http://www.immunize.org/free).**

## Your support helps IAC develop needed immunization resources



Deborah L. Wexler, MD  
IAC Executive Director

Dear Immunization Colleagues,

For those of us who care deeply about preventing disease through the use of vaccines, 2005 and 2006 have been enormously exciting years. Over the past 12 months, the FDA has licensed several new vaccines and several more are under consideration. Concurrent with the vaccine licensure process, CDC and health professional societies work together to develop detailed recommendations for new vaccines, specifying exactly how they should be used.

Putting new vaccine recommendations into practice can pose many challenges for health professionals.

One challenge is mastering the factual information about the ever-changing vaccine schedules; another is familiarizing ourselves with the nuances of how each new vaccine must be used.

This is an area where IAC's work can make a major difference to you. Our mission is to make your work of vaccinating patients easier. IAC does this by developing and distributing accurate, concise, up-to-date immunization materials designed to meet your and your patients needs for practical informa-

tion. All IAC print materials are reviewed by CDC (you can count on our accuracy!) and all are provided to you as free downloads in ready-to-copy format from our website ([www.immunize.org/free](http://www.immunize.org/free)). We offer more than 100 different educational pieces, all of which we review and update regularly. For 16 years, IAC has been providing this service free of charge to health professionals, the public, health departments, hospitals, and anyone who needs them.

Over these years, many *Vaccinate Adults* readers have generously supported IAC with financial contributions. Thank you to all of you who extend your personal, practice, agency, or corporate support to IAC. Your commitment makes it possible for us to continue our work. If you haven't been an IAC contributor and would like to become one, or if it's been a while since you last contributed, you can donate by using the form below. IAC is a 501(c)3 organization, and contributions are tax deductible.

Whether you can contribute at this time or not, please be in touch. Your ideas and suggestions are vital to IAC's work.

Deborah L. Wexler, MD  
Executive Director  
[deborah@immunize.org](mailto:deborah@immunize.org)

## Please help us prevent disease and save lives. No amount is too small.

### Thank you to CDC!

CDC's National Immunization Program and the Division of Viral Hepatitis, National Center for Infectious Diseases, provide invaluable technical and financial support.

### Thank you, readers!

We greatly appreciate your financial support and your comments and suggestions.

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A special thank you to the Mark and Muriel Wexler Foundation.

IAC receives funding from a variety of sources, both public and private, but maintains strict control over the content of its publications.

June 2006

Immunization saves lives. Your tax-deductible contribution will help hundreds of thousands of health professionals, parents, and patients access reliable immunization information. When you contribute \$75 or more, you'll receive an extensive collection of IAC's ready-to-print materials on a CD in English, as well as any translations available in Spanish. The CD also contains VISs in English and Spanish.

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## Immunization Action Coalition

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