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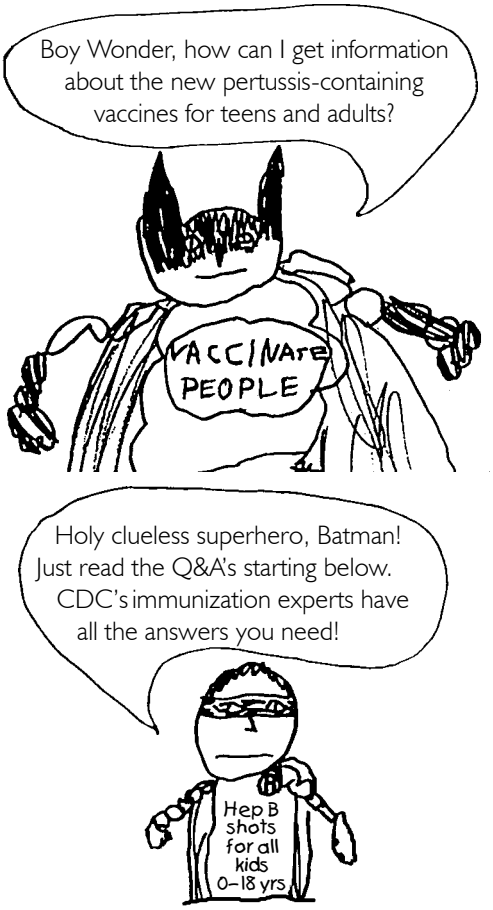
NEEDLE TIPS

and the Hepatitis B Coalition News

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



WHAT YOU'LL FIND INSIDE:

Ask the Experts

Editor's note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH; Andrew T. Kroger, MD, MPH; Eric E. Mast, MD, MPH; and Linda A. Moyer, RN, 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. Dr. Mast is chief, Prevention Branch, and Ms. Moyer is an epidemiologist, both at CDC's Division of Viral Hepatitis.

Immunization questions?

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

Immunization questions

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

What is the difference between the two new Tdap products, Boostrix and Adacel?

Both of these single-dose booster vaccines were licensed in 2005 to provide protection against pertussis, tetanus, and diphtheria. Boostrix (GlaxoSmithKline) is licensed for persons ages 10–18 years, and Adacel (sanofi pasteur) is licensed for persons ages 11–64 years. Both are approved for one dose only, not multiple doses in a series. The two vaccines also contain a different number of pertussis antigens and different concentrations of pertussis antigen and diphtheria toxoid.

What are the ACIP recommendations for the use of the new Tdap vaccines?

On June 30, 2005, the Advisory Committee on Immunization Practices (ACIP) voted to recommend that adolescents ages 11–18 years receive one of the two newly licensed Tdap vaccines in place of the currently recommended Td booster to protect adolescents against pertussis.

Adolescents who are ages 11–18 years who already received Td but not Tdap are encouraged to receive a single dose of Tdap to provide protection against pertussis as long as they have completed

(continued on page 19)

Needle Tips

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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 children 0–18 years; HBsAg screening for all pregnant women; testing and vaccination for high-risk groups; and education and treatment for people chronically infected with hepatitis B.

You Are a V.I.P.—Very Influential Provider!

Many of today's parents are exposed to media reports questioning the safety of vaccines and suggesting that vaccines may cause autism. Worried when they arrive at your office, some may refuse even routine immunizations for their child until you have allayed their fears and answered their questions. As a busy health professional, you may sometimes wonder if discussing immunization with them is worth your time. Take heart—recent studies show that it is.

Parents in several studies have indicated a healthcare provider is their preferred source for immunization information.[1,2] Practitioner endorsement can significantly improve vaccination rates. For example, in examining factors related to children receiving, or not receiving, hepatitis A vaccine, a CDC study revealed that lack of provider recommendation was the factor most associated with failure to receive the vaccine.[3] Another study found that parents overwhelmingly chose IPV over OPV after they received information on both vaccines and a provider's recommendation—even though IPV requires injections and OPV does not.[4] A third study found that parents unsure about vaccinating were open to discussing their concerns with a trusted provider, and most agreed to vaccination after the discussion.[5]

Time is limited during an office visit, yet as the studies above demonstrate, immunization education can be a crucial factor in parents' accepting vaccination for their child. In a recent national survey of parents with children younger than age six, fully one-third of parents could not affirm this statement: "I have access to all the information I need to make good decisions about immunizing my children."[6] In another study, 56% of pediatricians indicated that time was a barrier to talking with parents about the risks and benefits of various childhood vaccines. The same study, however, found that once physicians and nurses received communication training, they were able to give parents a considerable amount of immunization information with only a slight increase in office visit time.[7]

The time and concern health professionals invest in providing immunization information to families will pay off in higher vaccination acceptance and lower rates of disease. The list of resources below can help you answer parents' most pressing concerns about vaccinating their children. Even though some parents may initially question your immunization advice, remember that you are the most important medical influence in your patients' lives!

References

1. Parental attitudes, concerns and beliefs about vaccine safety and immunization information: Results from the 2001 healthstyles survey. CDC; workshop presentation, National Immunization Conference, 2002.
2. Do parents understand immunizations? A national telephone survey. Gellin BG, et al. *Pediatrics* 2000;Vol. 106(5):1097–1102.
3. Parental knowledge, attitudes, and practices associated with not receiving hepatitis A vaccine in a demonstration project in Butte County, California. Bardenheier B, et al. *Pediatrics* 2003;Vol. 112(4):e269.
4. Parental attitudes toward multiple poliovirus injections following a provider recommendation. Kolasa MS, et al. *Public Health Rep* 2001;Vol. 116(4):282–8.
5. Childhood immunization refusal: Provider and parent perceptions. Fredrickson DD, et al. *Fam Med* 2004;Vol. 36(6):431-9.
6. Parent attitudes toward immunizations and healthcare providers: The role of information. Gust DA, et al. *Am J Prev Med* 2005;Vol. 29(2):105–112.
7. Improving vaccine risk/benefit communication with an immunization education package: A pilot study. Davis TC, et al. *Ambul Pediatr* 2002;Vol. 2(3):193–200.

Valuable resources to have at your fingertips

- "Communicating with Patients about Immunization" (NNii): see www.immunizationinfo.org/healthProfessionals/resource_kit.cfm
- IAC's weekly listserv, IAC Express (useful for news and background information). To subscribe, send an email to express@immunize.org and place the word SUBSCRIBE in the "Subject" field.
- "Vaccine Concerns" (Paul Offit, MD, and Louis Bell, MD): see www.immunize.org/catg.d/4038myth.pdf
- "Quick Answers to Tough Questions" (IAC): see www.immunize.org/presentations/NIC2005version2. ppt (MS PowerPoint presentation)
- "Reliable Sources of Immunization Information" (IAC): see www.immunize.org/catg.d/p4012.pdf
- "Responding to Concerns about Vaccines" (IAC; includes information on religious/ethical concerns, alternative medicine, and evaluating health information): see www.immunize.org/concerns
- "Provider's Guide: Helping Parents Who Question Vaccines" (CDC): see www.cdc.gov/nip/vacsafe/parents-question-vacc-hcp.htm

Do you vaccinate children or adults?

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.
To order by fax or mail, use the order form on page 23.
Questions? Email admin@immunize.org or call (651) 647-9009.

Is safeguarding your vaccine supply worth 23 minutes of your time?

Updated June 2005!

That's the time it takes to view this newly updated CDC video, which covers temperature monitoring equipment, required documentation and record-keeping, storage and handling procedures, and action steps to take when a problem occurs.

"How to Protect Your Vaccine Supply"

Cost $15. For 20 or more copies, contact us for discount pricing. For more information or to order online, visit www.immunize.org/vachandling.
To order by fax or mail, use the order form on page 23.
Questions? Email admin@immunize.org or call (651) 647-9009.
(To learn about CDC's new CD titled "Vaccine Storage and Handling Toolkit," see page 22.)

Immunization record cards for adults!

Give all your adult patients a permanent vaccination record card from IAC. Printed on rip-proof, smudge-proof, waterproof 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/adultizcards/pictures.htm.

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/adultizcards, or use the order form on page 23.

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

Vaccine Highlights

Recommendations, schedules, and more

Editor's note: The information on these pages is current as of September 7, 2005.

The next ACIP meetings

The Advisory Committee on Immunization Practices (ACIP) is a committee of 15 national experts that provides advice and guidance to the Centers for Disease Control and Prevention (CDC) regarding the most appropriate use of vaccines. ACIP meetings are held three times a year in Atlanta and are open to the public. The next meetings will be held on October 26–27 and February 22–23, 2006. For more information, visit www.cdc.gov/nip/acip.

ACIP recommendations

All clinicians should have a set of ACIP recommendations, the public health guidance on vaccines, published in the *Morbidity and Mortality Weekly Report (MMWR).* Free continuing education credits are available for reading many of the recommendations and completing a brief test afterward. To obtain ACIP recommendations

- Download them from links on IAC's website: www.immunize.org/acip.
- Download them from CDC's website: 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:

- Prevention and Control of Influenza (7/29/05)
- Prevention and Control of Meningococcal Disease (5/27/05)

Influenza news

On Sept. 2, CDC published "Update: Influenza Vaccine Supply and Recommendations for Prioritization During the 2005–06 Influenza Season" in *MMWR.* The article highlights eight risk groups who should be given priority to receive injectable influenza vaccine before Oct. 24. (See "Ask the Experts," p. 19 for a list of the tiered risk groups.) This prioritized approach does not apply to the use of live attenuated influenza vaccine (LAIV). LAIV may be administered at any time for vaccination of non-pregnant healthy persons ages 5–49 years, including most healthcare personnel and others. On Oct. 24, *all* persons will be eligible for injectable influenza vaccine. To obtain a copy of this *MMWR* article, go to www.cdc.gov/mmwr/preview/mmwrhtml/mm5434a4.htm.

On August 31, FDA approved GlaxoSmithKline's Fluarix, a trivalent inactivated injectable influenza vaccine to immunize persons ages 18 and older. To view the package insert go to www.fda.gov/cber/label/inflgla083105LB.pdf.

On July 29, CDC published "Prevention and Control of Influenza" in *MMWR,* Vol. 54 (RR-8). It includes new or updated information regarding (1) vaccination of persons with conditions leading to compromise of the respiratory system; (2) vaccination of healthcare workers; (3) clarification of the role of LAIV in vaccine shortage situations and more. To read the complete recommendations, go to www.cdc.gov/mmwr/PDF/rr/rr5408.pdf.

MMR-Varicella news

On Sept. 6, FDA approved a license application for Measles, Mumps, Rubella and Varicella (Oka/Merck) Virus Vaccine Live. ProQuad is the trade name of this new combination vaccine. MMRV is indicated for active immunization against measles, mumps, rubella, and varicella in children 12 months to 12 years of age. To view the package insert, go to www.fda.gov/cber/label/mmrvmer090605LB.pdf.

Hepatitis A news

On Aug. 11, FDA approved lowering the age limit for the use of Merck's pediatric hepatitis A vaccine, Vaqta. Vaqta may now be used in children ages 12 months and older. In the original licensure, the age indication was for children ages two years and older. To view the supplemental license approval information on the FDA website, go to www.fda.gov/cber/products/havamer081105.htm.

Meningococcal news

In August, the NIP website posted information that conjugated meningococcal vaccine (MCV4) is temporarily in short supply, owing to a high volume of demand. For more information, go to www.cdc.gov/nip/news/shortages.

On May 27, CDC published "Prevention and Control of Meningococcal Disease" in *MMWR,* Vol. 54 (RR-7). It includes new information regarding the use of meningococcal conjugate vaccine (MCV4) among persons ages 11–55 years, specifically the following: (1) routine vaccination of adolescents ages 11–12 years; (2) vaccination before high-school entry (at approximately age 15 years) for those persons who have not previously received MCV4; and (3) routine vaccination of college freshmen living in dormitories and for other populations at increased risk. It also provides updated recommendations regarding use of the tetravalent meningococcal polysaccharide vaccine (MPSV4) and on antimicrobial chemoprophylaxis. To read the complete recommendations, go to www.cdc.gov/mmwr/PDF/rr/rr5407.pdf.

Looking for your state health department immunization and hepatitis consultants?

For phone numbers of people to contact at your state (or federal project) health department for help on immunization issues, the Vaccines for Children (VFC) Program, or hepatitis A, B, or C, go to

www.immunize.org/coordinators

Tdap for adolescents

On June 30, ACIP voted to recommend the use of Tdap in adolescents ages 11–18 years in place of tetanus and diphtheria-toxoid (Td) vaccines. Details for the use of the two available Tdap vaccines are available on CDC's website at www.cdc.gov/nip/vaccine/tdap/default. htm. (See "Ask the Experts," beginning on p. 1, for additional information.)

On June 10, FDA approved Adacel, a Tdap vaccine for single-booster immunization against pertussis, in combination with tetanus and diphtheria. Manufactured by Aventis Pasteur Limited, Toronto, it is intended for use in individuals ages 11–64 years. To view the package insert go to www.fda.gov/cber/label/tdapave061005LB.pdf.

On May 3, FDA approved GlaxoSmithKline's biologics license application for Boostrix, a Tdap vaccine for adolescents. This single-dose pertussis, tetanus, and diphtheria combination product is indicated for active booster immunization for individuals ages 10–18 years. To obtain the package insert, go to www.fda.gov/cber/label/tdapgla050305LB.pdf.

NIS data for 2004

On July 29, CDC published "National, State, and Urban Area Vaccination Coverage Among Children Aged 19–35 Months—United States, 2004" in *MMWR,* Vol.54 (29). The National Immunization Survey (NIS) provides vaccination coverage estimates for children ages 19–35 months for each of the 50 states and 28 selected urban areas. Current state rates can be viewed in the table to the right (page 5). To read the complete *MMWR* report, go to www.cdc.gov/mmwr/preview/mmwrhtml/mm5429a1.htm.

2004 Vaccination Rates for 19–35 Month Olds

The estimated rates* below are for selected vaccines. To view more findings and compare the 2004 rates with previous years' rates, go to www.cdc.gov/nip/menus/stats_surv.htm#nis.

State	3+ HepB	1+ Var	3+ PCV	4:3:1:3:3†	4:3:1:3:3:1††
U.S.	92.4	87.5	73.2	80.9	76.0
AL	93.6	89.9	74.0	82.3	80.1
AK	90.1	76.5	74.6	75.3	66.4
AZ	89.9	85.8	71.9	78.6	73.0
AR	94.7	94.0	63.6	82.4	80.6
CA	90.4	90.2	76.1	81.3	78.6
CO	88.5	86.1	62.8	77.1	73.4
CT	95.1	92.7	90.3	87.8	84.8
DE	94.7	87.6	74.4	86.0	79.9
DC	94.0	92.3	72.4	82.5	79.5
FL	96.8	91.3	55.0	88.5	84.7
GA	94.5	91.6	67.9	84.7	82.0
HI	89.9	91.7	86.0	81.2	79.8
ID	92.3	77.1	81.4	80.6	70.4
IL	94.3	85.9	76.4	82.7	73.7
IN	93.0	80.3	77.7	79.0	68.2
IA	94.9	85.9	67.7	86.1	76.1
KS	92.1	77.8	65.4	77.5	65.8
KY	95.4	89.6	76.1	79.1	77.1
LA	89.0	82.2	71.9	74.9	70.1
ME	91.8	83.8	84.6	82.1	73.8
MD	93.9	90.2	76.6	80.0	76.0
MA	94.8	90.6	89.7	89.1	84.0
MI	93.1	88.0	63.4	81.2	79.2
MN	91.7	83.3	77.3	85.2	77.7
MS	91.2	90.6	61.4	84.0	80.4
MO	90.6	85.1	76.2	81.6	75.2
MT	89.3	74.9	69.6	78.2	64.5
NE	93.7	82.2	75.5	82.3	72.6
NV	86.5	80.7	49.6	68.4	65.1
NH	94.1	85.6	82.0	86.3	78.4
NJ	95.0	86.8	78.9	82.7	74.4
NM	95.9	87.5	71.6	83.5	79.0
NY	95.4	89.1	83.4	82.2	78.0
NC	94.3	89.9	85.7	81.6	77.8
ND	93.8	79.6	69.3	82.0	71.0
OH	91.7	84.2	69.2	79.5	70.6
OK	92.1	89.6	44.1	72.1	71.4
OR	91.7	84.8	74.6	78.9	73.8
PA	95.7	91.9	83.1	85.7	81.8
RI	94.9	91.7	90.6	86.7	81.5
SC	93.9	90.2	76.4	79.8	77.2
SD	95.2	79.4	46.4	86.1	73.3
TN	92.9	89.0	74.9	82.4	79.1
TX	88.3	84.8	62.8	72.5	69.3
UT	83.7	84.7	69.6	71.3	67.8
VT	91.1	72.8	81.1	85.0	66.6
VA	93.2	88.4	86.6	81.0	73.9
WA	88.7	77.6	81.0	77.7	66.5
WV	93.4	81.7	71.1	86.6	76.0
WI	91.8	88.6	79.5	82.9	78.0
WY	93.8	70.4	82.8	83.3	64.1

* Source: *MMWR,* July 29, 2005, Vol. 54(29):717–721.

† 4:3:1:3:3 contains these vaccines: 4+ doses DTP/DT/DTaP, 3+ doses polio, 1+ dose measles-containing, 3+ doses Hib, and 3+ doses hepatitis B.

†† 4:3:1:3:3:1 contains the 4:3:1:3:3 series, plus 1+ dose varicella.

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- FDA licensures and treatment updates
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COPY THIS on card stock: put one in every exam room

Summary of Recommendations for Childhood and Adolescent Immunization

Adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP)* by the Immunization Action Coalition, August 2005

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and other related issues	Contraindications and precautions (mild illness is not a contraindication)
Hepatitis B *Give IM*	• Vaccinate all children 0 through 18yrs of age. • Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at 1–2m and the final dose at 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine or up to 3 doses of Comvax (2m, 4m, 12–15m of age) or Pediarix (2m, 4m, 6m of age). It is acceptable to give 4 doses of hepatitis B vaccine to infants. • **If mother is HBsAg-positive:** give the newborn HBIG + dose #1 within 12hrs of birth, #2 at 1–2m, and #3 at 6m of age. • **If mother's HBsAg status is unknown:** give the newborn dose #1 within 12hrs of birth, #2 at 1–2m, and #3 at 6m of age. If mother is subsequently found to be HBsAg positive, give infant HBIG within 7d of birth.	• Do not restart series, no matter how long since previous dose. • 3-dose series can be started at any age. • Minimum spacing for children and teens: 4wks between #1 & #2, and 8wks between #2 & #3. Overall there must be at least 16wks between #1 & #3 (e.g., 0-, 2-, 4m; 0-, 1-, 4m). **Special Notes on Hepatitis B Vaccine** **Dosing of hepatitis B vaccines:** Vaccine brands are interchangeable for 3-dose schedules. For persons 0 through 19yrs of age, give 0.5 mL of either Engerix-B or Recombivax HB. **Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs:** Give 2 doses Recombivax HB 1.0mL (adult formulation) spaced 4–6m apart. (Engerix-B is not licensed for a 2-dose schedule.) **For premature infants:** Consult *2003 AAP Red Book* (p. 66–68) as hepatitis B vaccination recommendations for premies may differ from routine infant schedule.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
DTaP (Diphtheria, tetanus, acellular pertussis) *Give IM*	• Give to children at 2m, 4m, 6m, 15–18m, 4–6yrs of age. • May give dose #1 as early as 6wks of age. • May give #4 as early as 12m of age if 6m have elapsed since #3 and the child is unlikely to return at age 15–18m. • Do not give DTaP to children age 7yrs and older. • It is preferable but not mandatory to use the same DTaP product for all doses.	• #2 & #3 may be given 4wks after previous dose. • #4 may be given 6m after #3. • If #4 is given before 4th birthday, wait at least 6m for #5 (4–6yrs of age). • If #4 is given after 4th birthday, #5 is not needed.	**Contraindications** • Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. • Previous encephalopathy within 7d after DTP or DTaP. This is a contraindication for DTaP only (not DT). **Precaution** Moderate or severe acute illness. **Precautions for DTaP** • Any of these occurrences within 48hrs after previous dose: 1) temperature of 105°F (40.5°C) or higher; 2) continuous crying 3hrs or more; or 3) pale or limp episode or collapse. • Convulsion within 3d of previous DTaP/DTP. • Unstable progressive neurologic problem (defer until stable).
DT *Give IM*	Give to children age 6yrs and younger if child had a serious reaction to "P" in DTaP/DTP or if parents refuse the pertussis component.		
Td (For **Tdap,** see note in next column) *Give IM*	• Give Td booster dose to children 11–12yrs of age if 5yrs have elapsed since last dose; then boost every 10yrs. Use Td, not tetanus toxoid (TT), for persons age 7yrs and older for all indications. **Note:** Two Tdap products, Boostrix (GSK) and Adacel (sanofi pasteur), were licensed by the FDA in 2005 for use in adolescents and/or adults. Consult package inserts for more information. It is anticipated that ACIP will issue recommendations for these products in late 2005.	For unvaccinated patients: give dose #1 now, give 2nd dose 4wks later, give 3rd dose 6m after #2, then give booster every 10yrs.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness. • Guillain-Barré syndrome within 6wks after previous dose of tetanus toxoid-containing vaccine.
Polio (IPV) *Give SC or IM*	• Give to children at 2m, 4m, 6–18m, and 4–6yrs of age. • May give #1 as early as 6wks of age. • Not routinely recommended for those age18yrs and older (except certain travelers).	• All doses should be separated by at least 4wks. • If dose #3 is given after 4th birthday, dose #4 is not needed.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.

*For specific ACIP recommendations, refer to the official ACIP statements published in *MMWR*. To obtain copies of these statements, visit CDC's website at www.cdc.gov/nip/publications/ACIP-list.htm; or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip. Visit IAC's website at www.immunize.org/childrules to make sure you have the most current version. IAC thanks William Atkinson, MD, MPH, from CDC's National Immunization Program, and Linda Moyer, RN, from CDC's Division of Viral Hepatitis, for their assistance. For more information, contact IAC at 1573 Selby Avenue, St. Paul, MN 55104, (651) 647-9009, or email admin@immunize.org.

Summary of Recommendations for Childhood and Adolescent Immunization

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccine administration and other related issues	Contraindications and precautions (mild illness is not a contraindication)
Varicella (Var) (Chickenpox) *Give SC*	• Give 1 dose to children at 12–18m of age. • Vaccinate all children age 12m and older including all adolescents who have not had chickenpox. • May use as postexposure prophylaxis if given within 3–5d. • If Var and MMR (and/or yellow fever vaccine) are not given on the same day, space them at least 28d apart.	• Do not give to children younger than age 12m. • Susceptible children age 12yrs and younger should receive 1 dose only. • Susceptible persons age 13yrs and older should receive 2 doses 4–8wks apart.	**Contraindications** • Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4 weeks. • Children immunocompromised because of high doses of systemic steroids, cancer, leukemia, lymphoma, or immunodeficiency. **Note:** For patients with humoral immunodeficiency, HIV infection, or leukemia, or for patients on high doses of systemic steroids, see ACIP recommendations. **Precautions** • Moderate or severe acute illness. • If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement *General Recommendations on Immunization* regarding time to wait before vaccinating. • History of thrombocytopenia or thrombocytopenic purpura.
MMR (Measles, mumps, rubella) *Give SC*	• Give dose #1 at 12–15m of age. • Give dose #2 at 4–6yrs of age; although dose #2 may be given earlier if at least 4wks since dose #1. • If a dose was given before 12m of age, it doesn't count as the first dose, so give #1 at 12–15m of age with a minimum interval of 4wks between the invalid dose and dose #1. • If MMR and Var (and/or yellow fever vaccine) are not given on the same day, space them at least 28d apart.	• A dose should be given whenever the child is behind. Exception: If MMR and Var (and/or yellow fever vaccine) are not given on the same day, space them at least 28d apart. • Dose #2 can be given at any time if at least 28d have elapsed since dose #1 and both doses are administered after 1yr of age.	**Contraindications** • Pregnancy or possibility of pregnancy within 4 wks. • Severe immunodeficiency (e.g., hematologic & solid tumors; congenital immunodeficiency; long-term immunosuppressive therapy, or severely symptomatic HIV). **Precautions** • If blood, plasma, or immune globulin given in past 11m or if on high-dose immunosuppressive therapy, see ACIP statement *General Recommendations on Immunization* regarding delay time. • History of thrombocytopenia or thrombocytopenic purpura. **Note:** MMR is not contraindicated if a PPD test was recently applied. If PPD and MMR not given on same day, delay PPD for 4–6wks after MMR.
Influenza Trivalent inactivated influenza vaccine (TIV) *Give IM*	• On an annual basis, vaccinate all children and adolescents who -are 6–23m of age. -have a risk factor (e.g., pregnancy, heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathy, immunosuppression) or live in a chronic-care facility. -live or work with at-risk people as listed above. -are a household contact of a child 0–23m of age. • Any child wishing to reduce the likelihood of becoming ill with influenza may be vaccinated. • Give 2 doses to first-time vaccinees 6m–9yrs of age, separated by at least 4wks. • Give 0.25 mL dose to children 6–35m of age and 0.5 mL dose if age 3yrs and older.	If previously unvaccinated child age 8yrs and younger does not receive 2nd dose during initial vaccination season, give only 1 dose the following season.	**Contraindication** Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. **Precaution** Moderate or severe acute illness.
Live attenuated influenza vaccine (LAIV) *Give intranasally*	• May use LAIV in healthy children age 5yrs and older only. • Give 2 doses to first-time vaccinees 5–9yrs of age, separated by at least 6wks.		**Contraindications** • Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. • Pregnancy, asthma, reactive airway disease or other chronic disorder of the pulmonary or cardiovascular systems; an underlying medical condition, including metabolic diseases such as diabetes, renal dysfunction, and hemoglobinopathies; a known or suspected immune deficiency disease or receiving immunosuppressive therapy; history of Guillain-Barré syndrome. **Precaution** Moderate or severe acute illness.

Summary of Recommendations for Childhood and Adolescent Immunization

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and other related issues	Contraindications and precautions (mild illness is not a contraindication)
Hib (*Haemophilus influenzae* type b) *Give IM*	• HibTITER (HbOC) & ActHib (PRP-T): give at 2m, 4m, 6m, 12–15m (booster dose). • PedvaxHIB or Comvax (containing PRP-OMP): give at 2m, 4m, 12–15m. • Dose #1 of Hib vaccine may be given no earlier than 6wks of age. • The last dose (booster dose) is given no earlier than 12m of age and a minimum of 8wks after the previous dose. • Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered, a total of three doses are necessary to complete the primary series in infants. • Any Hib vaccine may be used for the booster dose. • Hib is not routinely given to children age 5yrs and older.	**All Hib vaccines:** • If #1 was given at 12–14m, give booster in 8wks. • Give only 1 dose to unvaccinated children from the ages of 15m up to 5yrs. **HibTITER and ActHib:** • #2 and #3 may be given 4 wks after previous dose. • If #1 was given at 7–11m, only 3 doses are needed; #2 is given 4–8wks after #1, then boost at 12–15m (and must be at least 8wks after dose #2). **PedvaxHIB and Comvax:** • #2 may be given 4wks after dose #1.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Pneumo. conjugate (PCV) *Give IM*	• Give at 2m, 4m, 6m, and 12–15m of age. • Dose #1 may be given as early as 6wks of age. • Give 1 dose to unvaccinated healthy children 24–59m of age. • Give 2 doses at least 8wks apart to unvaccinated high-risk children 24–59m of age. • PCV is not routinely given to children age 5yrs and older. **High-risk:** Those with sickle cell disease; anatomic/functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes mellitus; CSF leak; HIV infection; or immunosuppression.	• Minimum interval between doses for infants younger than age 12m is 4wks, for age 12m and older is 8wks. • For infants 7–11m of age: If unvaccinated, give dose #1 now, give 2nd dose 4–8wks later, and boost at 12–15m. If infant has had 1 or 2 previous doses, give next dose now, and boost at 12–15m. • For children 12–23m of age: If unvaccinated or only one previous dose before 12m, give 2 doses at least 8wks apart. If 2 doses given before 12m, give booster at least 8wks after previous dose.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Pneumo. polysacch. (PPV) *IM or SC*	• Give 1 dose at least 8wks after final dose of PCV to high-risk children age 2yrs and older. • For children age 10yrs and older who are immunocompromised or have sickle cell disease or functional or anatomic asplenia, give a 2nd PPV at least 3–5yrs after previous PPV.		**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Hepatitis A *Give IM*	• Give 2 doses at least 6m apart to children who meet the age criteria in the box to the right and who meet any of the following criteria: -Reside in AZ, AK, CA, ID, NV, NM, OK, OR, SD, UT, or WA. Consider vaccination for children living in AR, CO, MO, MT, TX, or WY. -Live in areas with elevated levels of disease (consult local or state health dept.) -Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan. -Wish to be protected from HAV infection. -Have chronic liver disease, clotting factor disorder, or is MSM adolescent.	• Do not restart series, no matter how long since previous dose. **Note:** At the time of this writing (9/6/05), Havrix (GSK) is licensed for use in persons ages 2yrs and older, and Vaqta (Merck) is licensed for persons ages 12m and older.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Meningococcal Conjugate (MCV4) *Give IM* — Polysaccharide (MPSV4) *Give SC*	• Give 1 dose of MCV4 to adolescents 11–12yrs of age, to adolescents at high school entry (approximately age 15yrs), and to college freshmen living in dormitories. • Vaccinate all children age 2yrs and older who have any of the following risk factors (use MPSV4 if age younger than 11yrs and MCV4 if age 11yrs and older): -Anatomic or functional asplenia, or terminal complement component deficiencies. -Travel to, or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of Sub-Saharan Africa during the dry season [Dec–June]). **Note:** Other adolescents who wish to decrease their risk of meningococcal disease may be vaccinated with MCV4.	If previously vaccinated with MPSV4 and risk continues, give MCV4 5yrs after MPSV4.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4). **Precaution** Moderate or severe acute illness. **Note:** MCV4 is not licensed for use in children younger than age 11 yrs.

Summary of Recommendations for Adult Immunization

COPY THIS on card stock: put one in every exam room

Adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP)* by the Immunization Action Coalition, August 2005

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)
Influenza Trivalent inactivated influenza vaccine (TIV) *Give IM*	• Persons age 50yrs and older. • Persons with medical problems (e.g., heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathy, immunosuppression) and/or people living in chronic-care facilities. • 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) • Persons working or living with at-risk people. • Women who will be pregnant during the influenza season. • All healthcare workers and other persons who provide direct care to at-risk people. • Household contacts and out-of-home caregivers of children ages 0–23m. • 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). • Persons who provide essential community services. • Students or other persons in institutional settings (e.g., dormitory residents). • Anyone wishing to reduce the likelihood of becoming ill with influenza.	• Given every year. • October through November is the *optimal* 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.	**Contraindication** Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. **Precaution** Moderate or severe acute illness.
Influenza Live attenuated influenza vaccine (LAIV) *Give intranasally*	• Healthy, non-pregnant persons age 49yrs and younger who meet any of the conditions listed below. - Working or living with at-risk people as listed in the section above. - Healthcare workers or other persons who provide direct care to at-risk people (excluding persons in close contact with severely immunosuppressed persons). - Household contacts and out-of-home caregivers of children ages 0–23m. - Travelers who may be among people from areas of the world where there is current influenza activity (e.g., on organized tours). - Persons who provide essential community services. - Students or other persons in institutional settings (e.g., dormitory residents). - Anyone wishing to reduce the likelihood of becoming ill with influenza.		**Contraindications** • Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs. • 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. **Precaution** Moderate or severe acute illness.
Pneumococcal polysaccharide (PPV23) *Give IM or SC*	• Persons age 65yrs and older. • 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.	• Routinely given as a one-time dose; administer if previous vaccination history is unknown. • 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 previous dose.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.

*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; or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip.

This table is revised yearly. Visit IAC's website at 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, and Linda Moyer, RN, from CDC's Division of Viral Hepatitis, for their assistance. For more information, contact IAC at 1573 Selby Avenue, St. Paul, MN 55104, (651) 647-9009, or email admin@immunize.org.

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)
Hepatitis B (Hep B) *Give IM* Brands may be used interchangeably.	• All adolescents. • High-risk persons, including household contacts and sex partners of HBsAg-positive persons; injecting drug users; heterosexuals with more than one sex partner in 6 months; men who have sex with men; persons with recently diagnosed STDs; patients receiving hemodialysis and patients with renal disease that may result in dialysis; recipients of certain blood products; healthcare 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. • Persons with chronic liver disease. **Note:** Provide serologic screening for immigrants from endemic areas. When HBsAg-positive persons are identified, offer appropriate disease management. In addition, screen their sex partners and household members, and give the first dose of vaccine at the same visit. If found susceptible, complete the vaccine series.	• Three doses are needed on a 0, 1, 6m schedule. • Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m. • 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. • **Schedule for those who have fallen behind:** If the series is delayed between doses, DO NOT start the series over. Continue from where you left off. 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.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Hepatitis A (Hep A) *Give IM* Brands may be used interchangeably.	• Persons who travel or work anywhere except the U.S., Western Europe, New Zealand, Australia, Canada, and Japan. • Persons with chronic liver disease, including persons with hepatitis B and C; illegal 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. • Anyone wishing to obtain immunity to hepatitis A. **Note:** Prevaccination 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.	• Two doses are needed. • The minimum interval between dose #1 and #2 is 6m. • If dose #2 is delayed, do not repeat dose #1. Just give dose #2.	**Contraindication** Previous anaphylactic reaction to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness. • Safety during pregnancy has not been determined, so benefits must be weighed against potential risk. **Note:** Breastfeeding is not a contraindication to the use of this vaccine.
Td (Tetanus, diphtheria) *Give IM* Note: As of 8/24/05, ACIP has not issued recommendations for the use of acellular pertussis combination vaccines (Tdap). See note in next column.	• All adolescents and adults. • After the primary series has been completed, a booster dose is recommended every 10yrs. Make sure your patients have received a primary series of 3 doses. • A booster dose for wound management may be needed as early as 5yrs after receiving a previous dose, so consult ACIP recommendations.* • Use Td, not tetanus toxoid (TT), for all indications. **Note:** Two Tdap products, Boostrix (GSK) and Adacel (sanofi pasteur), were licensed by the FDA in 2005 for use in adults and/or adolescents. Consult package inserts for more information. It is anticipated that ACIP will issue recommendations for these products in late 2005.	• Give booster dose every 10yrs after the primary series has been completed. • For those who are unvaccinated or behind, complete the primary series (spaced at 0, 1–2m, 6–12m intervals). Don't restart the series, no matter how long since the previous dose.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness. • Guillain-Barré syndrome within 6wks of receiving a previous dose of tetanus toxoid-containing vaccine. **Note:** Pregnancy and breastfeeding are not contraindications to the use of this vaccine.
Polio (IPV) *Give IM or SC*	Not routinely recommended for persons age 18yrs 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 can receive one booster dose if traveling to polio endemic areas.	• Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness. • Pregnancy. **Note:** Breastfeeding is not a contraindication to the use of this vaccine.

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)
Varicella (Var) (Chickenpox) *Give SC*	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. **Note:** At its June 2005 meeting, ACIP voted to regard birth in the U.S. in 1965 or earlier as presumptive evidence of varicella immunity, with or without a history of having had chickenpox. Persons born in 1966–1997 with a reliable history of chickenpox (such as self or parental report of disease) can be assumed to be immune. For persons who have no reliable history, serologic testing may be cost effective, since most persons with a negative or uncertain history of varicella are immune.	• Two doses are needed. • Dose #2 is given 4–8wks after dose #1. • If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart. • If the second dose is delayed, do not repeat dose #1. Just give dose #2.	**Contraindications** • Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks (use contraception). • Persons immunocompromised because of malignancies and primary or acquired cellular immunodeficiency including HIV/AIDS. (See *MMWR* 1999, Vol. 48, No. RR-6.) **Note:** For those on high-dose immunosuppressive therapy, consult ACIP recommendations regarding delay time.* **Precautions** • If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement *General Recommendations on Immunization** regarding time to wait before vaccinating. • Moderate or severe acute illness. **Note:** Breastfeeding is not a contraindication to the use of this vaccine.
Meningococcal Conjugate vaccine (MCV4) *Give IM* — or — Polysaccharide vaccine (MPSV4) *Give SC*	• College freshmen living in dormitories. • Adolescents and adults with anatomic or functional asplenia or with terminal complement component deficiencies. • 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 during the dry season [Dec–June]). • Microbiologists who are routinely exposed to isolates of *N. meningitidis.* • Military recruits.	• MCV4 is preferred over MPSV4 for persons age 55 yrs and younger, although MPSV4 is an acceptable alternative. • Give one dose to persons with risk factors; revaccinate after 5yrs if risk of disease continues and previous vaccine was MPSV4.	**Contraindication** Previous anaphylactic or neurologic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4). **Precaution** Moderate or severe acute illness. **Note:** Pregnancy and breastfeeding are not contraindications to the use of either vaccine.
MMR (Measles, mumps, rubella) *Give SC*	• 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. • 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. • Persons born before 1957 are usually considered immune, but proof of immunity may be desirable for healthcare workers. • Women of childbearing age (i.e., adolescent girls and premenopausal adult women) who do not have acceptable evidence of rubella immunity or vaccination. • Special attention should be given to immunizing women born outside the U.S. in 1957 or later.	• One or two doses are needed. • If dose #2 is recommended, give it no sooner than 4wks after dose #1. • If varicella vaccine and MMR are both needed and are not administered on the same day, space them at least 4wks apart. • If a pregnant woman is found to be rubella susceptible, administer MMR postpartum.	**Contraindications** • Previous anaphylactic reaction to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks (use contraception). • Persons immunocompromised because of cancer, leukemia, lymphoma, immunosuppressive drug therapy, including high-dose steroids or radiation therapy. **Note:** HIV positivity is NOT a contraindication to MMR except for those who are severely immunocompromised. **Precautions** • If blood, plasma, and/or immune globulin were given in past 11m, see ACIP statement *General Recommendations on Immunization** regarding time to wait before vaccinating. • Moderate or severe acute illness. • History of thrombocytopenia or thrombocytopenic purpura. **Note:** Breastfeeding is not a contraindication to the use of this vaccine. **Note:** 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.

COPY THIS
for your patients

Your name: _____ Date of birth: ___/___/___ (mo./day/yr.) Today's date: ___/___/___ (mo./day/yr.)

Do I Need Any Vaccinations Today?

Many adults are behind on their vaccinations. These checklists will help you determine if you need any vaccinations. Please check the boxes that apply to you.

Influenza vaccination

❑ I am 50 years of age or older.

❑ I am younger than 50 years of age, and one or more of the following conditions or situations applies to me:

- ___ lung disease
- ___ heart disease
- ___ kidney disease
- ___ diabetes mellitus
- ___ HIV/AIDS
- ___ a disease that affects my immune system
- ___ a condition that may cause me to choke when I swallow (e.g., neuromuscular disorder, spinal cord injury, seizure disorder)
- ___ I live in a nursing home or chronic care facility.
- ___ I will be pregnant during the influenza season (December–March).
- ___ I provide essential community services.
- ___ I am a healthcare worker.
- ___ I am a household contact or caregiver of a person who has one of the illnesses listed at the left, is elderly, or is 0–23 months of age.

❑ I am not in one of the groups listed above, but I'd like to be vaccinated to avoid getting influenza this season.

Pneumococcal vaccination

❑ I am 65 years of age or older, and I have never had a dose of pneumococcal vaccine.

❑ I am 65 years of age or older and had one dose of pneumococcal vaccine when I was under 65; it has been at least 5 years since that dose.

❑ I have one of the following health problems and I (❑ have) (❑ have not) had a previous dose of pneumococcal vaccine.

- ___ lung disease (not asthma)
- ___ heart disease
- ___ diabetes mellitus
- ___ alcoholism
- ___ cochlear implant
- ___ kidney disease
- ___ liver disease
- ___ HIV/AIDS
- ___ Hodgkin's disease
- ___ leukemia
- ___ multiple myeloma
- ___ lymphoma
- ___ organ or bone marrow transplant
- ___ generalized malignancy
- ___ cerebrospinal fluid leak
- ___ sickle cell disease
- ___ had my spleen removed
- ___ on medication or receiving x-ray treatment that affects my immune system

Tetanus- and diphtheria-containing vaccination (e.g., DTP, DTaP, Tdap, or Td)

❑ I have not yet had at least 3 tetanus- and diphtheria-containing shots.

❑ I have had at least 3 tetanus- and diphtheria-containing shots in my lifetime, but I believe it's been 10 years or more since I received my last shot.

❑ I have no idea if I ever received any tetanus- and diphtheria-containing shots in school, the military, or elsewhere.

(continued on page 2)

www.immunize.org/catg.d/4036need.pdf • Item #P4036 (8/05)

Hepatitis A vaccination

❑ I am in one of the following risk groups, and I haven't had the 2-dose vaccination series against hepatitis A:

- I travel in countries other than the U.S., Western Europe, Canada, Japan, Australia, and New Zealand.[1]
- I am a man who has sex with men.
- I use street drugs.
- I have chronic liver disease.
- I have a clotting factor disorder.

❑ I wish to receive hepatitis A vaccine to be protected against hepatitis A even though I am not in one of these groups.

Hepatitis B vaccination

❑ I am in one of the following risk groups, and I haven't completed the 3-dose vaccination series against hepatitis B:

- I live with a person who has long-term hepatitis B virus infection.
- I have a bleeding disorder that requires transfusion.
- I am or will be on kidney dialysis.
- I am an immigrant, or my parents are immigrants from an area of the world where hepatitis B is common.[2,3]
- I inject street drugs.
- I am a sex partner of a person with hepatitis B.
- I've been diagnosed with a sexually transmitted disease.
- I have had more than one sex partner in a 6-mo. period.
- I am a man who has sex with men.
- I am a healthcare or public safety worker who is exposed to blood or body fluids.
- I provide direct services for people with developmental disabilities.
- I travel outside of the U.S.[1,2]

❑ I wish to receive hepatitis B vaccine to be protected against hepatitis B even though I am not in one of these groups.

Measles-Mumps-Rubella (MMR) vaccination

❑ I was born after 1956 and never received a dose of MMR.

❑ I am a woman thinking about a future pregnancy and do not know if I'm immune to rubella.

❑ I am included in one of the following groups for whom two doses of MMR are recommended, but I have only received one dose of MMR.

___ I am a healthcare worker.
___ I travel internationally.
___ I am entering college or a post–high school educational institution.
___ I had a blood test that shows I do not have immunity to rubella.

Chickenpox (Varicella) vaccination

❑ I have never had chickenpox disease or varicella vaccination.

❑ I'm not sure if I've had chickenpox or not.

❑ I may become pregnant and do not know if I'm immune to chickenpox.

Meningococcal vaccination

❑ I am (or will be) a college freshman living in a dorm.

❑ I am traveling to an area of the world where meningococcal disease is common.[1]

❑ I have sickle cell disease, or my spleen isn't working or has been removed.

Note: Adults may need additional vaccines, such as pertussis, Hib, polio, or others. Talk to your healthcare provider.

1. Call your local travel clinic to find out if additional vaccines are recommended.
2. Areas with high rates of hepatitis B include Africa, China, Korea, Southeast Asia including Indonesia and the Philippines, the Middle East except Israel, South and Western Pacific Islands, interior Amazon Basin, and certain parts of the Caribbean (i.e., Haiti and the Dominican Republic). Areas with moderate rates include South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, Russia, and most of Central and South America.
3. Adults from these areas should be tested for hepatitis B infection prior to vaccination.

Healthcare Worker Vaccination Recommendations

Vaccine	Recommendations in brief
Hepatitis B	Give 3-dose series (dose #1 now, #2 in 1 month, #3 approximately 5 months after #2). Give IM. Obtain anti-HBs serologic testing 1–2 months after dose #3.
Influenza	Give 1 dose of TIV or LAIV annually. Give IM or intranasally, respectively.
MMR	For persons born in 1957 or later without serologic evidence of immunity or prior vaccination, give 2 doses of MMR, 4 weeks apart. Give SC.
Varicella (chickenpox)	For persons who have no serologic proof of immunity, prior vaccination, or history of varicella disease, give 2 doses of varicella vaccine, 4 weeks apart. Give SC.
Tetanus/ diphtheria	All adults need a Td booster dose every 10 years, following the completion of the primary 3-dose series. Give IM. **Note:** As of Aug. 2005, CDC's Advisory Committee on Immunization Practices (ACIP) is in discussion about the use of acellular pertussis vaccine in healthcare workers (HCWs).
Meningococcal	Give 1 dose to microbiologists who are routinely exposed to isolates of *N. meningitidis.*

Hepatitis A, typhoid, and polio vaccines are not routinely recommended for HCWs who may have on-the-job exposure to fecal material.

Hepatitis B

Healthcare workers (HCWs) who perform tasks that may involve exposure to blood or body fluids should receive a 3-dose series of hepatitis B vaccine at 0-, 1-, and 6-month intervals. Test for hepatitis B surface antibody (anti-HBs) to document immunity 1–2 months after dose #3.

- If anti-HBs is at least 10 mIU/mL (positive), the patient is immune. No further serologic testing or vaccination is recommended.
- If anti-HBs is less than 10 mIU/mL (negative), the patient is unprotected from HBV infection; revaccinate with a 3-dose series. Retest anti-HBs 1–2 months after dose #3.
  - –If anti-HBs is positive, the patient is immune. No further testing or vaccination is recommended.
  - –If anti-HBs is negative following 6 doses of vaccine, the patient is a **non-responder.**

For non-responders: Persons who are non-responders should be considered susceptible to HBV and should be counseled regarding precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or probable parenteral exposure to hepatitis B surface antigen (HBsAg)-positive blood.* It is also possible that non-responders are persons who are HBsAg positive. Testing should be considered. Persons found to be HBsAg positive should be counseled and medically evaluated.

Note: Anti-HBs testing is not recommended routinely for previously vaccinated HCWs who were not tested 1–2 months after their original vaccine series. These HCWs should be tested for anti-HBs when they have an exposure to blood or body fluids. If found to be anti-HBs negative, the HCW should be protected.*

Influenza

Trivalent (Inactivated) Influenza Vaccine (TIV): May give to any HCW.
Live, Attenuated Influenza Vaccine (LAIV): May give to any non-pregnant healthy HCW age 49 years and younger.

1. All HCWs should receive annual influenza vaccine. Groups that should be targeted include all personnel (including volunteers) in hospitals, outpatient, and home-health settings who have any patient contact.
2. TIV is preferred over LAIV for HCWs who are in close contact with severely immunosuppressed persons (e.g., stem cell transplant patients) when patients require a protective environment.

Measles, Mumps, Rubella (MMR)

Persons who work in medical facilities should be immune to measles and rubella. Immunity to mumps is highly desirable.

• Persons born in 1957 or later can be considered immune to measles, mumps, or rubella only if they have documentation of (a) physician-diagnosed measles or mumps disease; or (b) laboratory evidence of measles, mumps, or rubella immunity (persons who have an "indeterminate" or "equivocal" level of immunity upon testing should be considered nonimmune); or (c) appropriate vaccination against measles, mumps, and rubella (i.e., administration on or after the first birthday of two doses of live measles vaccine separated by 28 days or more, at least one dose of live mumps vaccine, and at least one dose of live rubella vaccine).

• Although birth before 1957 generally is considered acceptable evidence of measles and rubella immunity, healthcare facilities should consider recommending a dose of MMR vaccine to unvaccinated HCWs born before 1957 who are in either of the following categories: (a) do not have a history of measles disease or laboratory evidence of measles immunity and (b) do not have laboratory evidence of rubella immunity.

Varicella

It is recommended that all HCWs be immune to varicella, either from a reliable history of varicella disease or vaccination. Serologic screening for varicella immunity need not be done before vaccinating unless the healthcare institution considers it cost effective. Routine postvaccination testing of HCWs for antibodies to varicella is not recommended because commercial tests are often not sensitive enough to measure vaccine-induced immunity.

Tetanus/Diphtheria (Td)

All persons should receive a Td booster every 10 years. A 3-dose primary series of a tetanus/diphtheria-containing product (DTP, DTaP, DT, Td) is necessary before a booster dose is given. **Note:** As of Aug. 2005, ACIP is in discussion about the use of acellular pertussis vaccine in HCWs.

Meningococcal

Vaccination is recommended for microbiologists who are routinely exposed to isolates of *N. meningitidis.* Use of MCV4 is preferred among persons ages 11–55 years; give IM. If MCV4 is unavailable, MPSV4 is an acceptable alternative for persons ages 11–55 years. Use of MPSV4 is recommended for persons older than age 55; give SC.

References

*Table 3: "Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis," *MMWR*, June 29, 2001, Vol. 50, RR-11.

For additional specific ACIP recommendations, refer to the official ACIP statements published in *MMWR.* To obtain copies, visit CDC's website at www.cdc.gov/nip/publications/ACIP-list.htm; or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip.

Adapted with thanks from the Michigan Department of Community Health

www.immunize.org/catg.d/p2017.pdf • Item #P2017 (9/05)

Hepatitis B Facts: Testing and Vaccination

Who needs hepatitis B vaccine?

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

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

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

There is no medical reason not to give hepatitis B vaccine to anyone who wants to be protected against HBV infection.

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.

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

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

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

Who needs serologic testing?

Serologic testing prior to vaccination may be undertaken based on your assessment of your patient's level of risk and your or your patient's need for definitive information. If you decide to test, draw the blood first, and then give the first dose of vaccine at the same office visit. Vaccination can then be continued, if needed, based on the results of the tests. If you are not sure who needs hepatitis B screening, call your liver disease consultant or your state or local health department.

Tests	Results	Interpretation	Vaccinate?
HBsAg anti-HBc anti-HBs	negative negative negative	susceptible	vaccinate if indicated
HBsAg anti-HBc anti-HBs	negative negative positive with ≥10mIU/mL*	immune due to vaccination	no vaccination necessary
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acutely infected	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronically infected	no vaccination necessary (may need treatment)
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretations possible†	use clinical judgment

*Postvaccination testing, when it is recommended, should be performed 1–2 months after 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

Managing chronic HBV infection

When you identify a patient who is chronically infected, make sure you consult a specialist knowledgeable in the treatment of liver disease so your patient's care is optimized. Chronically infected persons need medical evaluation every 6–12 months to assess the status of their liver health and their need for antiviral therapy, as well as to screen for liver cancer. Persons with HBV infection should also be educated about their disease and how to protect others.

Household members and sex partners should be tested for HBV infection and given the first dose of hepatitis B vaccine at the same visit. (Vaccinating a person who has already been infected will do no harm). If testing indicates HBV susceptibility, complete the hepatitis B vaccination series. If testing indicates HBV infection, further evaluation is needed.

www.immunize.org/catg.d/p2110.pdf • Item #P2110 (8/05)

Hepatitis A, B, and C: Learn the Differences

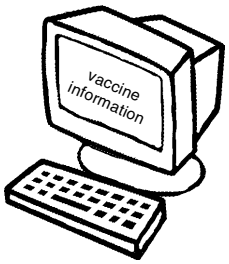
	Hepatitis A caused by the hepatitis A virus (HAV)	**Hepatitis B** caused by the hepatitis B virus (HBV)	**Hepatitis C** caused by the hepatitis C virus (HCV)
How is it spread?	Hepatitis A is a serious liver disease caused by the hepatitis A virus (HAV). HAV is found in the feces of people with hepatitis A and is usually spread by close personal contact (including sex or sharing a household). It can also be spread by eating food or drinking water contaminated with HAV.	HBV is found in blood and certain body fluids. It is spread when blood or body fluid from an infected person enters the body of a person who is not immune. HBV is spread through having unprotected sex with an infected person, sharing needles or "works" when "shooting" drugs, needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth. Exposure to infected blood in ANY situation can be a risk for transmission.	HCV is found in blood and certain body fluids. It is spread when blood or body fluid from an infected person enters another person's body. HCV is spread through sharing needles or "works" when "shooting" drugs, through needlesticks or sharps exposures on the job, or sometimes from an infected mother to her baby during birth. It is possible to transmit HCV during sex, but it is uncommon.
Who is at risk?	• Household contacts of infected persons • Sex partners of infected persons • Children living in regions of the U.S. that had consistently elevated rates of hepatitis A during 1987–1997* • Persons traveling to countries where hepatitis A is common (everywhere except Canada, Western Europe, Japan, Australia, and New Zealand) • Men who have sex with men • Injecting and non-injecting drug users Persons with chronic liver disease should be vaccinated against hepatitis A.	• Persons with more than one sex partner in a 6-month period • Persons diagnosed with a sexually transmitted disease • Men who have sex with men • Sex partners of infected persons • Injecting drug users • Household contacts of chronically infected persons • Infants born to infected mothers • Immigrants and children of immigrants from areas with elevated HBV rates, including Asia, Africa, the Pacific Islands, Eastern Europe, the Middle East, and the Amazon Basin. • Healthcare and public safety workers who might be exposed to blood • Chronic hemodialysis patients	• Injecting drug users • Recipients of clotting factors made before 1987 • Hemodialysis patients • Recipients of blood or solid organ transplants before 1992 • Infants born to HCV-infected mothers Although HCV is not commonly spread through sex, persons having sex with multiple partners or with an infected steady partner may be at increased risk of HCV infection. People with undiagnosed abnormal liver test results should be tested for HCV infection.
What if you are infected?	The only way to know if you have already been infected is to have your blood tested for HAV, HBV, or HCV infection. If you are in one of the risk groups listed above, talk to your healthcare provider about your need for blood testing. Viral hepatitis symptoms are similar no matter which type of hepatitis a person has. If symptoms occur, the individual may experience any or all of the following: jaundice, fever, loss of appetite, fatigue, dark urine, joint pain, abdominal pain, diarrhea, nausea, and vomiting. Very rarely, a new case (acute) of viral hepatitis can cause liver failure and death. Sometimes in these instances a liver transplant (if a liver is available) can save a life. Note: Symptoms are less common in children than in adults, and people who have HCV infection are less likely to experience symptoms.		
	Incubation period: 15 to 50 days, average 28 days There is no chronic (long-term) infection. Once you have had hepatitis A, you cannot get it again. About 15% of people infected with HAV will have prolonged illness or relapsing symptoms over a 6–9 month period.	**Incubation period:** 45 to 160 days, average 120 days Chronic infection occurs in up to 90% of infants infected at birth; 30% of children infected at age 1–5 years; 2–6% of persons infected after age 5 years. In the U.S., 5000 people die each year from HBV. Death from chronic liver disease occurs in 15–25% of chronically infected persons. People who have chronic HBV infection have a much higher risk of liver failure (cirrhosis) and liver cancer.	**Incubation period:** 14 to 180 days, average 45 days Chronic infection: 75–85% of infected persons Chronic liver disease: 70% of chronically infected persons. In the U.S., 8–10,000 people die each year from HCV. People who have chronic HCV infection have a much higher risk of liver failure (cirrhosis) and liver cancer. Chronic HCV-related liver disease is the leading indication for liver transplant.
What treatment helps?	• There is no treatment for hepatitis A. • Avoid alcohol. It can worsen liver disease.	• Persons with chronic HBV infection should have a medical evaluation for liver disease every 6–12 months. Several antiviral medications are currently licensed for the treatment of persons with chronic hepatitis B. These drugs are effective in up to 40% of patients. Liver transplant is the last resort, but livers are not always available. • Avoid alcohol. It can worsen liver disease.	• Persons with chronic HCV infection should have a medical evaluation for liver disease every 6–12 months. Interferon, pegylated interferon, and ribavirin are the only drugs licensed for the treatment of persons with chronic hepatitis C. Combination therapy is currently the treatment of choice and can eliminate the virus in approximately 50% of patients (genotype 1). • Get vaccinated against hepatitis A, and ask your healthcare provider if you need hepatitis B vaccine as well. • Avoid alcohol. It can worsen liver disease.
How is it prevented?	• Hepatitis A vaccine is the best protection. It is recommended for people age 2 yrs and older who are in risk groups for HAV infection or for severe outcomes from infection. It is recommended as a routine vaccination for children living in regions of the U.S. that had consistently elevated rates of hepatitis A during 1987–1997.* • For a recent exposure to someone with HAV or if travel is imminent (leaving in less than 4 weeks) to an area of the world where hepatitis A is common, see your healthcare provider about your need for a dose of immune globulin (IG). • Always wash your hands with soap and water after using the toilet, changing a diaper, and before preparing and eating food. • There is no medical reason that hepatitis A vaccine cannot be given to anyone age 2 yrs and older who wants it.	• Hepatitis B vaccine is the best protection. Routine vaccination is recommended for all persons 0–18 years of age, and for persons of all ages who are in risk groups for HBV infection. All newborns should be given their first dose of hepatitis B vaccine before leaving the hospital. • There is no medical reason that hepatitis B vaccine cannot be given to anyone who wants it. • Whenever a woman is pregnant, she should be tested for hepatitis B; infants born to HBV-infected mothers should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours of birth. • Persons who are not in mutually monogamous relationships should use latex condoms correctly and for every sexual encounter. (The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.)	• There is no vaccine to prevent hepatitis C. • HCV can be spread by sex, but this is rare. If you are not in a mutually monogamous relationship, use condoms correctly and every time to prevent the spread of sexually transmitted diseases. (The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use may reduce transmission.) You should also get vaccinated against hepatitis B.
		More information to help you prevent hepatitis B and hepatitis C: • Don't share personal care items that might have blood on them, such as razors, toothbrushes, and washcloths. • Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools or dye have someone else's blood on them or if the artist or piercer does not follow good sterilization practices. • Healthcare or public safety workers should always follow routine barrier precautions and safely handle needles and other sharps. In addition, they should be vaccinated against hepatitis B. • If you have or have had HBV or HCV infection, do not donate blood, organs, or tissue. • Don't shoot drugs. If you do, try to stop by getting into a treatment program. If you can't stop, never share needles, syringes, water, or "works." Get vaccinated against hepatitis A and B.	

*Disease rates are available from your state or local health department.

www.immunize.org/catg.d/p4075abc.pdf • Item #P4075 (8/05)

Reliable Sources of Immunization Information: Where to go to find answers!

Websites



Allied Vaccine Group
www.vaccine.org
The Allied Vaccine Group is composed of select organizations dedicated to presenting valid scientific information about vaccines.

CDC's Division of Viral Hepatitis
www.cdc.gov/hepatitis
The Division of Viral Hepatitis is part of the Centers for Disease Control and Prevention. This website provides a substantial amount of information on the prevention of viral hepatitis.

CDC's National Immunization Program
www.cdc.gov/nip
The National Immunization Program provides leadership for the planning, coordination, and implementation of immunization activities nationwide.

Childhood Immunization Support Program (CISP)
www.cispimmunize.org
Created by the American Academy of Pediatrics, this is an immunization website for parents and health professionals.

Immunization Action Coalition (IAC)
www.immunize.org & www.vaccineinformation.org
IAC is a nonprofit organization that promotes immunization for all people against vaccine-preventable diseases. These websites offer educational pieces, photos, and video clips for parents, health professionals, the media, and the public.

Nat'l Network for Immunization Information (NNii)
www.immunizationinfo.org
NNii provides current, science-based, extensively reviewed information to health professionals, the media, policy makers, and the public.

Nat'l Vaccine Program Office (NVPO)
www.hhs.gov/nvpo
NVPO is a federal program that provides pertinent information about childhood, adolescent, and adult immunization policy.

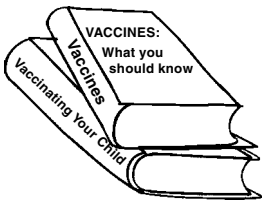
Vaccine Education Center at Children's Hospital of Philadelphia (CHOP)
www.vaccine.chop.edu
The goal of the Vaccine Education Center (VEC) is to accurately communicate the facts about each childhood vaccine. The website includes a link to VEC's "Parent PACK," a program for parents interested in vaccines.

Phone Numbers

CDC–INFO Contact Center
A toll-free number for consumers and health professionals who have questions about public health, including questions about vaccine-preventable diseases. For more information, contact 800-CDC-INFO or (800) 232-4636. This operates 24/7 in English & Spanish. TTY: (888) 232-6348.

CDC's Hepatitis Hotline
A toll-free number for consumers and health professionals about viral hepatitis. Get information by recording, fax, or voice in English or Spanish. (888) 443-7232 (888-4HEPCDC)

Books for Parents



Vaccines: What you should know, 3rd edition
By Paul Offit, MD, and Louis Bell, MD, John Wiley & Sons, Inc., 2003. To purchase, visit your local bookstore, call John Wiley & Sons, Inc. at (877) 762-2974, or visit www.wiley.com.

Vaccinating Your Child: Questions and Answers for the Concerned Parent, 2nd edition
By Sharon Humiston, MD, MPH, and Cynthia Good, Peachtree Publishers, 2003. To purchase, visit your local bookstore, call Peachtree Publishers at (800) 241-0113, or visit www.peachtree-online.com.

Parents Guide to Childhood Immunization
A 94-page booklet from CDC's National Immunization Program at www.cdc.gov/nip/publications/Parents-Guide.
Call (800) 232-4636 or complete the online order form at www.cdc.gov/nip/publications.

Videos

"Vaccines and Your Baby" and "Vaccines: Separating Fact from Fear"
These videos answer the questions of new parents, and are available in English and Spanish. All are available at a nominal charge from the Vaccine Education Center. To order, call (215) 590-9990 or order online at www.chop.edu/consumer/jsp/division/generic.jsp?id=75981.

www.immunize.org/catg.d/p4012.pdf • Item #P4012 (9/05)

Influenza Standing Orders & Screening Questionnaires

For a ready-to-copy 8½" x 11" version of standing orders for children, go to www.immunize.org/catg.d/p3074a.pdf

Standing Orders for Administering Influenza Vaccines to Children & Adolescents

Purpose: To reduce morbidity and mortality from influenza by vaccinating all children and adolescents who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses may vaccinate children and adolescents who meet the criteria below.

Procedure:

1. Identify children and adolescents in need of influenza vaccination based on meeting any of the following criteria:
   a. Age 6–23 months
   b. Age 2 years and older with any of the following conditions:
      • chronic disorder of the pulmonary or cardiovascular system, including asthma
      • chronic metabolic disease (e.g., diabetes mellitus), renal dysfunction, hemoglobinopathy, or immunosuppression (e.g., caused by medications, HIV) that has required regular medical follow-up or hospitalization during the preceding year
      • 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)
      • will be pregnant during the influenza season
      • long-term aspirin therapy (applies to a child or adolescent 6 months–18 years of age)
   c. Residence in a nursing home or other chronic-care facility that houses persons of any age who have chronic medical conditions
   d. In an occupation or living situation that puts one in proximity to persons at high risk, including
      • a healthcare worker, caregiver, or household member in contact with person(s) at high risk of developing complications from influenza
      • a household contact or out-of-home caretaker of a child 0–23 months of age
   e. Wish to reduce the likelihood of becoming ill with influenza
2. Screen all patients for contraindications and precautions to influenza vaccine:
   a. **Contraindications:** serious reaction (e.g., anaphylaxis) after ingesting eggs or after receiving a previous dose of influenza vaccine or an influenza vaccine component. For a list of vaccine components, go to www.cdc.gov/nip/publications/pink/appendices/a/excipient.pdf. Do not give live attenuated influenza vaccine (LAIV) to pregnant adolescents or immunosuppressed persons. Use of inactivated influenza vaccine is preferred over LAIV for close contacts of severely immunosuppressed persons during periods when the immunocompromised person requires a protective environment.
   b. **Precautions:** moderate or severe acute illness with or without fever
3. Provide all patients (or, in the case of a minor, their parent or legal representative) with a copy of the most current federal Vaccine Information Statement (VIS). Although not required by federal law, it is prudent to document in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speakers with a VIS in their native language if available; these can be found at www.immunize.org/vis.
4. Administer injectable trivalent inactivated vaccine (TIV) IM (22–25g, 1–1½" needle) as follows: 0.25 mL for children 6–35 months and 0.5 mL for all others age 3 years and older. Alternatively, healthy children age 5 years and older without contraindications may be given 0.5 mL of intranasal LAIV; 0.25 mL is sprayed into each nostril while the patient is in an upright position. Children age 8 years and under who are receiving influenza vaccine for the first time should receive 2 doses (separated by at least 4 weeks for TIV and at least 6 weeks for LAIV).
5. Document each patient's vaccine administration information and follow up in the following places:
   a. **Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
   b. **Personal immunization record card:** Record vaccination date and the name/location of the administering clinic.
6. Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.
7. Report all adverse reactions to influenza vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or (800) 822-7967. VAERS report forms are available at www.vaers.hhs.gov.

This policy and procedure shall remain in effect for all patients of the_____until rescinded or until _____ (date).
(name of practice or clinic)

Medical Director's signature: _____ Effective date: _____

www.immunize.org/catg.d/p3074a.pdf • Item #P3074a (8/05)

Immunization Action Coalition • 1573 Selby Ave. • St. Paul, MN 55104 • (651) 647-9009 • www.immunize.org • www.vaccineinformation.org

For a ready-to-copy 8½" x 11" version of standing orders for adults, go to www.immunize.org/catg.d/p3074.pdf

Standing Orders for Administering Influenza Vaccine to Adults

Purpose: To reduce morbidity and mortality from influenza by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses may vaccinate patients who meet the criteria below.

Procedure:

1. Identify adults in need of influenza vaccination based on meeting any of the following criteria:
   a. Age 50 years or older
   b. Having any of the following conditions:
      • chronic disorder of the pulmonary or cardiovascular system, including asthma
      • chronic metabolic disease (e.g., diabetes mellitus), renal dysfunction, hemoglobinopathy, or immunosuppression (e.g., caused by medications, HIV) that has required regular medical follow-up or hospitalization during the preceding year)
      • 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)
      • will be pregnant during the influenza season
   c. Residence in a nursing home or other chronic-care facility that houses persons of any age who have chronic medical conditions
   d. In an occupation or living situation that puts one in proximity to persons at high risk, including
      • a healthcare worker, caregiver, or household member in contact with person(s) at high risk of developing complications from influenza
      • a household contact or out-of-home caretaker of a child 0–23 months of age
   e. Wish to reduce the likelihood of becoming ill with influenza
2. Screen all patients for contraindications and precautions to influenza vaccine:
   a. **Contraindications:** serious reaction (e.g., anaphylaxis) after ingesting eggs or after receiving a previous dose of influenza vaccine or an influenza vaccine component. For a list of vaccine components, go to www.cdc.gov/nip/publications/pink/appendices/a/excipient.pdf. Do not give live attenuated influenza vaccine (LAIV) to pregnant women or immunosuppressed persons. Use of inactivated influenza vaccine is preferred over LAIV for close contacts of severely immunosuppressed persons during periods when the immunocompromised person requires a protective environment.
   b. **Precautions:** moderate or severe acute illness with or without fever
3. Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Although not required by federal law, it is prudent to document in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speakers with a VIS in their native language if available; these can be found at www.immunize.org/vis.
4. Administer 0.5 mL of injectable trivalent inactivated influenza vaccine (TIV) IM (22–25g, 1–1½" needle) in the deltoid muscle. Alternatively, healthy persons 5–49 years of age without contraindications may be given 0.5 mL of intranasal LAIV; 0.25 mL is sprayed into each nostril while the patient is in an upright position.
5. Document each patient's vaccine administration information and follow up in the following places:
   a. **Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
   b. **Personal immunization record card:** Record vaccination date and the name/location of the administering clinic.
6. Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.
7. Report all adverse reactions to influenza vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or (800) 822-7967. VAERS report forms are available at www.vaers.hhs.gov.

This policy and procedure shall remain in effect for all patients of the_____until rescinded or until _____ (date).
(name of practice or clinic)

Medical Director's signature: _____ Effective date: _____

www.immunize.org/catg.d/p3074.pdf • Item #P3074 (8/05)

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For a ready-to-copy 8½" x 11" version of this questionnaire, go to www.immunize.org/catg.d/p4067.pdf

SAVE TIME: Ask patients to fill this out while waiting. Review their answers before administering vaccine.

Patient name: _____ Date of birth: ____/____/____ (mo.) (day) (yr.)

Screening Questionnaire for Intranasal Influenza Vaccination

For adult patients as well as parents of children to be vaccinated: The following questions will help us determine if there is any reason we should not give you or your child intranasal influenza vaccine today. If you answer "yes" to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your health care provider to explain it.

	Yes	No	Don't Know
1. Is the person to be vaccinated sick today?	☐	☐	☐
2. Does the person to be vaccinated have an allergy to eggs or to a component of the influenza vaccine?	☐	☐	☐
3. Has the person to be vaccinated ever had a serious reaction to intranasal influenza vaccine in the past?	☐	☐	☐
4. Is the person to be vaccinated younger than 5 or older than 49 years of age?	☐	☐	☐
5. Does the person to be vaccinated have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorders?	☐	☐	☐
6. Does the person to be vaccinated have a weakened immune system because of HIV/AIDS or another disease that affects the immune system, long-term treatment with drugs such as steroids, or cancer treatment with x-rays or drugs?	☐	☐	☐
7. Is the person to be vaccinated between the ages of 5 and 17 years and receiving aspirin therapy or aspirin-containing therapy?	☐	☐	☐
8. Is the person to be vaccinated pregnant or could she become pregnant within the next month?	☐	☐	☐
9. Has the person to be vaccinated ever had Guillain-Barré Syndrome?	☐	☐	☐
10. Does the person to be vaccinated live with or expect to have close contact with a person whose immune system is severely compromised and who must be in a protective environment (such as in a hospital room with reverse air flow)?	☐	☐	☐

Form completed by: _____ Date: _____

Form reviewed by: _____ Date: _____

www.immunize.org/catg.d/p4067.pdf • Item #P4067 (7/05)

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For a ready-to-copy 8½" x 11" version of this questionnaire, go to www.immunize.org/catg.d/p4066.pdf

SAVE TIME: Ask patients to fill this out while waiting. Review their answers before administering vaccine.

Patient name: _____ Date of birth: ____/____/____ (mo.) (day) (yr.)

Screening Questionnaire for Injectable Influenza Vaccination

For adult patients as well as parents of children to be vaccinated: The following questions will help us determine if there is any reason we should not give you or your child injectable influenza vaccination today. If you answer "yes" to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Is the person to be vaccinated sick today?	☐	☐	☐
2. Does the person to be vaccinated have an allergy to eggs or to a component of the vaccine?	☐	☐	☐
3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past?	☐	☐	☐

Form completed by: _____ Date: _____

Form reviewed by: _____ Date: _____

www.immunize.org/catg.d/p4066.pdf • Item#P4066 (7/05)

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IAC's "Ask the Experts" team from CDC

William L. Atkinson, MD, MPH

Andrew T. Kroger, MD, MPH

Linda A. Moyer, RN

Eric E. Mast, MD, MPH

the recommended childhood DTaP series. It is preferable to have a 5-year interval between Td and Tdap administration; however, Tdap may be administered at any time after Td if the benefit of protection against pertussis outweighs the risk of a local reaction (e.g., during a pertussis outbreak or if the adolescent has close contact with an infant age less than 6 months).

These ACIP recommendations are currently under review by the director of CDC and the Department of Health and Human Services, and will become official when published in the *MMWR.* To access the provisional Tdap recommendations for adolescents, go to: www.cdc.gov/nip/vaccine/tdap/tdap_acip_recs.pdf.

ACIP did not make a recommendation for use of Tdap among adults ages 19 years and older. Recommendations for adults will be considered at future meetings. However, Adacel is approved by FDA for a single dose in persons ages 11–64 years who have previously completed a series of DTP or DTaP.

Can Tdap be given with other vaccines?
Yes. Tdap should be administered with other vaccines that are indicated, such as meningococcal conjugate vaccine (Menactra), hepatitis B vaccine, or MMR. Each vaccine should be administered at different anatomic sites using a separate syringe.

If an adolescent needs wound prophylaxis, should Td or Tdap be given?
Adolescents ages 11–18 years who require a tetanus toxoid-containing vaccine as part of wound management should receive a single dose of Tdap instead of Td, if they have not previously received Tdap. If Tdap is not available, or was previously administered, these adolescents should receive Td.

Should I vaccinate a teen who has had pertussis?
Adolescents with a history of pertussis generally should receive Tdap.

What schedule should I use to vaccinate adolescents who never received the primary series of tetanus toxoid-containing vaccine?
Adolescents who have never received tetanus-containing vaccines, or whose vaccination history is unknown, should receive the 3-dose series. In this situation, ACIP recommends Tdap for dose #1, followed 4 weeks later by Td for dose #2, followed at least 6 months later by Td for dose #3. Tdap can substitute for only one of any of the 3 Td doses in the series. The amount of protection provided by a single dose of Tdap in a person who has not previously received pertussis vaccine is not known.

Can I give Tdap to a pregnant teen?
Yes. Pregnancy is not a contraindication for Tdap or Td.

Is Tdap covered under the Vaccines for Children (VFC) program?
Yes. ACIP has already voted to include Tdap in the VFC program (www.cdc.gov/nip/vfc/acip_resolutions/605dtap.pdf) and contracts have been negotiated for VFC vaccine purchase.

When are Vaccine Information Statements (VISs) released for new vaccines?
A Vaccine Information Statement (VIS) is released as soon as possible after ACIP votes on recommendations for use of the vaccine. Please note that unique VISs do not exist for certain combination vaccines (e.g., Comvax, Pediarix)—so health professionals in instances like these should provide a VIS for each vaccine component. CDC only publishes VISs in English; all translations have been developed by others. To access all currently available VISs in more than 30 languages and some alternative formats (audio/video), go to www.immunize.org/vis.

I've heard "tiering" is recommended for injectable influenza vaccination this year. Which persons should be prioritized to receive the injectable influenza vaccine?
Given the uncertainties in doses and distribution of injectable influenza vaccine this season, CDC recommends that until October 24, 2005, the following groups be prioritized to receive trivalent inactivated influenza vaccine (TIV):

- Persons ages 65 years and older with comorbid conditions
- Residents of long-term–care facilities
- Persons ages 2–64 years with comorbid conditions
- Persons ages 65 years and older without comorbid conditions
- Children ages 6–23 months
- Pregnant women
- Healthcare personnel who provide direct patient care
- Household contacts and out-of-home caregivers of infants younger than 6 months of age.

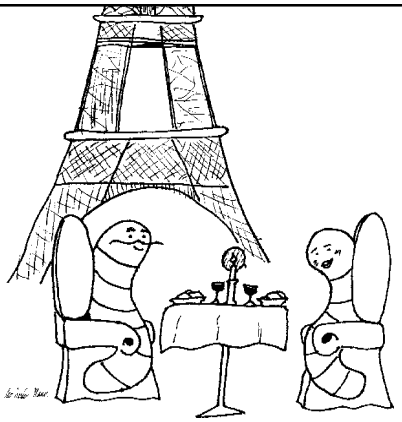
Beginning October 24, *all* persons will be eligible to receive injectable influenza vaccination.

Am I correct that prioritized vaccine use is not recommended when giving LAIV?
You are correct. The use of live attenuated influenza vaccine (LAIV) should not be prioritized. LAIV may be administered at any time for vaccination of nonpregnant healthy persons ages 5 through 49 years, including most healthcare personnel, other persons in close contact with groups at high risk for influenza-related complications, and others desiring protection against influenza.

(continued on page 20)

Needle Tips correction policy

The Immunization Action Coalition works tirelessly to ensure the accuracy of the information we make available. At times, however, mistakes occur. If you find an error, please notify us immediately. We publish notification of significant errors in ***Needle Tips*** and on our email announcement service ***IAC Express.*** Be sure you're signed up for this service. Visit www.immunize.org/express to sign up, or subscribe by sending an email to express@immunize.org Enter the word SUBSCRIBE in the "Subject:" field. No message is needed.



Definition of "PARASITES":

What you see from the top of the Eiffel Tower.

Which influenza vaccines can we give to children?
Of the three vaccines currently licensed for children, Fluzone (sanofi-pasteur) can be used in children as young as 6 months of age; Fluvirin (Chiron), for children beginning at age 4 years; and FluMist (MedImmune), beginning at age 5 years. The newly licensed vaccine Fluarix (GlaxoSmith-Kline) may only be given to persons age 18 years and older.

Is there a change in the storage requirements for LAIV?
Use of the manufacturer-supplied "freezebox" is no longer required to store LAIV, and the vaccine can now be stored in a conventional frost-free freezer. The vaccine must be stored in a freezer with a separate door that can reliably maintain 5ºF (-15ºC). Once thawed, LAIV cannot be refrozen. LAIV may be stored at refrigerator temperature but must be discarded if not used within 60 hours.

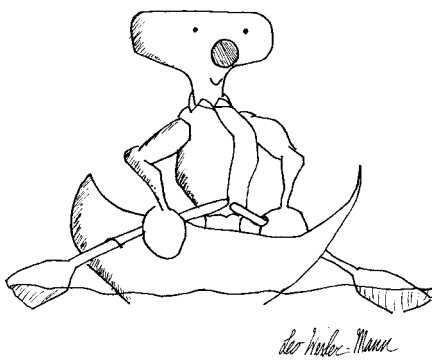
We recommend our healthcare workers receive LAIV, but question whether NICU staff can receive this vaccine without compromising our neonates.
Neonates in an NICU are not considered severely immunocompromised. NICU personnel may receive LAIV if otherwise eligible (younger than 50 years, healthy, and not pregnant).

For how long should a woman of childbearing age avoid pregnancy after receiving a live attenuated vaccine?
ACIP recommends that women avoid pregnancy for four weeks after receiving a live attenuated vaccine (MMR, varicella, LAIV). This interval is shorter than that recommended by the manufacturer.

Is LAIV contraindicated for asthmatics?
Persons with asthma should not receive LAIV. Persons with asthma and other chronic respiratory conditions should receive inactivated influenza vaccine.

Definition of "HEROES":

What a guy in a boat does.



Is there a risk for a pregnant staff person administering live-virus vaccines?
A pregnant woman may administer any vaccine except smallpox vaccine.

What is the recommended interval for receiving influenza vaccine after an allergy injection?
Vaccines can be administered at any time before or after administration of an "allergy injection."

Is a VIS "mandatory" or is it "recommended" when administering influenza vaccine?
Although influenza vaccine is now included in the Vaccine Injury Compensation Program, use of the influenza VIS is recommended but not mandatory. Use of the VIS is not mandatory until the final VIS version is published. The current influenza VIS is an interim statement. A final version of the 2005 influenza VIS will probably not be available until at least October. We expect the final VIS version to be almost identical to the interim version.

How should the newly licensed MMRV vaccine (ProQuad) be used?
ACIP has not yet made recommendations on the use of the newly licensed measles, mumps, rubella, varicella combination vaccine, ProQuad (Merck). The new vaccine is licensed for use in children ages 12 months to 12 years. It must be stored in the freezer (like varicella vaccine). For more information, consult the package insert at www.fda.gov/cber/label/mmrvmer090605LB.pdf.

What is causing the Menactra shortage and what should we do for our patients?
The tremendous demand for the new meningococcal conjugate vaccine (MCV4 [Menactra]) has exceeded the available supply. This problem should resolve in the next few months. Until then, we recommend that providers limit use of MCV4 to the groups ACIP has specifically recommended to receive it. Meningococcal polysaccharide vaccine (MPSV4 [Menomune]) is an acceptable alternative if MCV4 is not available.

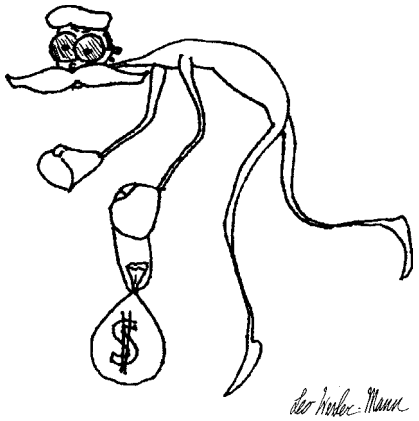
We have boarding school students in our practice who received MPSV4 vaccine in the past. Should we give them a dose of MCV4 before they leave for college?
ACIP currently recommends revaccination with MCV4 only if it has been at least 5 years since the MPSV4 dose and if the student is still in a high-risk category (e.g., freshman living in a dorm).

We often see college kids whose titer results show they are not immune to some combination of measles, rubella, and/or mumps. Should these students receive two doses of MMR prior to college entry?
If a person cannot produce written documentation of either immunization or disease, and titers are negative, they should receive two doses of MMR.

Should PCV7 be given to children older than age 5 years?
ACIP does not recommend PCV7 for children older than age 59 months. The vaccine, however, is licensed for use through age 9 years. Administration of PCV7 to a child ages 5–9 years is not contraindicated.

Definition of "BURGLARIZE":

What a crook sees with.



If a physician prescribes PCV7 and PPV23 for a high-risk child age 2 years or older, at what intervals should they be administered?
ACIP recommends that PCV7 and PPV23 be separated by at least 8 weeks. Give PCV7 first and then wait 8 weeks before giving PPV23. For more information, see the ACIP statement on PCV7 at www.cdc.gov/mmwr/PDF/rr/rr4909.pdf (p. 26–7).

We see immigrant children who have no immunization records. Should we be concerned about "over immunization"?
The only vaccines for which extra doses are a concern are those that contain diphtheria and tetanus toxoids. Excessive doses of DTP, DTaP, DT, Tdap, or Td probably increase the risk of a local adverse

Current VIS dates

The use of most Vaccine Information Statements (VISs) is mandated by federal law. Listed below are the dates of the most current VISs. Check your stock of VISs against this list. If you have outdated VISs, print current ones from one of these sources: CDC's website at www.cdc.gov/nip/publications/vis (has VISs in English) or IAC's website at www.immunize.org/vis (has VISs in more than 30 languages).

DTaP/DT/DTP .. 7/30/01	hepatitis A 8/4/04
hepatitis B 7/11/01	influenza (LAIV) .. 7/18/05
Hib 12/16/98	influenza (TIV) ... 7/18/05
MMR 1/15/03	meningococcal ... 4/4/05
PCV 9/30/02	PPV 7/29/97
polio 1/1/00	rabies 11/4/03
Td 6/10/94	typhoid 5/19/04
varicella 12/16/98	yellow fever 11/9/04
Japanese encephalitis ... 5/11/05	

reaction. As a general rule, ACIP recommends that persons who do not have valid documentation of vaccinations be revaccinated. Serologic testing can be considered in some situations. This issue is discussed at length in the 2002 ACIP General Recommendations on Immunization. Go to www.cdc.gov/mmwr/PDF/rr/rr5102.pdf (p. 20).

What should we ask a patient when screening to determine a gelatin allergy?
Begin by asking a general question about whether the person has an allergy to *any* food, medication, or vaccine. If they report an allergy to gelatin or foods that contain gelatin, you could follow up by asking if they can eat Jell-O™ and gelatin-type products. Gelatin allergies are extremely rare. Only severe, life-threatening (anaphylactic) allergy is a contraindication to vaccination.

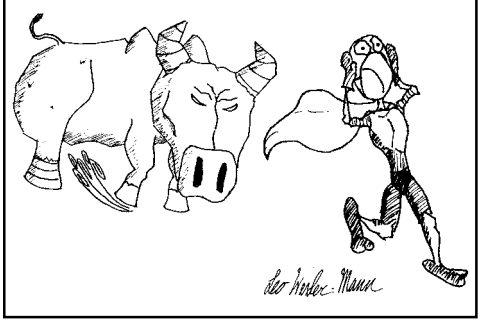
What is your recommendation relating to removing stoppers from bottles to prevent reaction to latex?
We do not recommend removing the rubber stopper from a vaccine vial to administer vaccine to a person with a severe life-threatening allergy to latex. The vaccine has already been exposed to the rubber stopper in the vial, which might be enough of an exposure to cause a reaction. These persons should not be given the vaccine.

When you inject a vaccine, why is it not necessary to aspirate?
ACIP does not recommend aspiration when administering vaccines because no data exist to justify the need for this practice. Intramuscular injections are not given in areas where large vessels are present. Given the size of the needle and the angle at which you inject the vaccine, it is difficult to cannulate a vessel without rupturing it and even more difficult to actually deliver the vaccine intravenously. We are aware of no reports of a vaccine being administered intravenously and causing harm in the absence of aspiration.

Please review the recommendations related to vaccination of adolescents and syncope.
This issue is discussed in the 2002 ACIP General Recommendations on Immunization. Syncope after vaccination may be more common among adolescents. Adolescents should be seated when being vaccinated. You may also want to consider a 15–20 minute observation period after vaccination.

Definition of "AVOIDABLE":

What a bullfighter tries to do.



Hepatitis A and B

by Linda A. Moyer, RN, and Eric E. Mast, MD, MPH

We recently used an accelerated schedule because of a pertussis outbreak in our area, giving Pediarix at 6, 10, and 14 weeks of age. Do these children need to come back in 6 months for another hepatitis B shot?
Yes. The minimum age for the final dose in the hepatitis B vaccine series is 24 weeks (164 days). These children should receive another dose of hepatitis B vaccine after age 24 weeks.

In view of HIPAA regulations, is it okay to share data about a patient's hepatitis B status (e.g., between a provider and the state health department)?
CDC's Office of General Counsel has released a guidance document, "HIPAA and Perinatal Hepatitis B Prevention," to answer common questions about the intent and implementation of the rule as it relates to accessing patient records for immunization assessment and disease surveillance. Go to www.immunize.org/birthdose/hepb_hipaa.pdf.

How long should I wait to donate blood after receiving hepatitis B vaccination?
Because hepatitis B vaccine contains noninfectious HBsAg particles, it is possible that a person might have detectable noninfectious HBsAg in their serum up to 3 weeks after vaccination. For this reason, people who receive hepatitis B vaccine should delay donating blood for 30 days after vaccination.

Was the age limit recently lowered to receive hepatitis A vaccine?
The FDA recently approved Vaqta (Merck) for use in children as young as age 12 months. The other available hepatitis A vaccine, Havrix (GlaxoSmithKline), is approved for use in children as young as age 2 years.

I read that many hepatitis A lab tests are false positives. When is it appropriate to test my patients for hepatitis A?
The May 13, 2005, issue of *MMWR* included a report about this problem (www.cdc.gov/mmwr/preview/mmwrhtml/mm5418a1.htm). State health departments and CDC investigated persons with positive serologic tests for acute hepatitis A virus (HAV) infection (i.e., IgM anti-HAV) whose illness was not consistent with the surveillance case definition for acute hepatitis A. Findings in this investigation indicate that most persons who were tested for IgM anti-HAV and who did not have illness consistent with acute viral hepatitis had false positive test results. Thus, healthcare providers should limit use of IgM anti-HAV testing to persons with evidence of clinical hepatitis or to those who have had recent exposure to an HAV-infected person. Use of IgM anti-HAV as a screening tool for asymptomatic persons or as part of testing panels for the workup of non-acute liver function abnormalities should be discouraged.

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.

*On May 13, 2005, FDA approved Roche's Pegasys (peginterferon alfa-2a) for the treatment of chronic hepatitis B virus infection.

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The card lists the vaccines adults get, making it easy to discuss your patients' vaccination needs with them. At the end of a visit, give the card to the patient as a permanent reminder of their immunization status. Rip-proof, smudge-proof, and waterproof, the card fits into a wallet for lifelong use. $35 for a 250-card box; 2 boxes/$65; 3 boxes/$90; 4 boxes/$110

Video: "How to Protect Your Vaccine Supply"

Updated by CDC in June 2005, the 23-minute videotape (VHS) offers practical information on vaccine handling and storage. Cost is $15.

New! CD-ROM: "Vaccine Storage and Handling Toolkit" (CDC, June 2005). At $15, this CD is probably one of the best values in immunization today. Includes (1) six guidelines that cover temperature monitoring, inventory management, troubleshooting, and other topics; (2) two videos: "How to Protect Your Vaccine Supply" and "Top 10 Storage and Handling Errors"; and (3) an array of print resources: forms, checklists, posters, and contact information. Order from IAC for $15.
(Single copies available free from CDC by going to www2.cdc.gov/nchstp_od/PIWeb/niporderform.asp)

"Adults Only Vaccination: A Step-by-Step Guide."

All copies of our book are sold but you can still download it free from IAC's website at www.immunize.org/guide. It contains 157 pages of practical information on all aspects of adult immunization. Indispensable for any setting where adults are immunized. Intended for use with two videos: "Immunization Techniques: Safe, Effective, Caring" and "How to Protect your Vaccine Supply." Order videos on page 23.

To order these materials, use the form on page 23. Contact us for discount pricing on larger quantities.

Essential Immunization Resources from IAC

IAC's website (www.immunize.org/free) provides you with all our free print materials for health professionals and their patients (more than 100 items). IAC's print materials are CDC reviewed, ready to copy, and available for your immediate use. Please use them or adapt them to meet your practice's needs. In addition to using our print materials, we hope you'll send a donation if you can.

When you make a donation of $75 or more, we'll send you a CD containing all IAC's ready-to-print materials in English as well as any translations available in Spanish. The CD also includes VISs in English and Spanish.

You can also receive the CD when you contribute $75 or more online at www.immunize.org/join.

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Qty.			Amt.
Videos, CD, and DVD (details p. 22)			
___	V2010	Videotape: How to Protect Your Vaccine Supply $15	_____
___	C2012	CD: Vaccine Storage and Handling Toolkit ..... $15 (Copy available free from CDC by going to www2.cdc.gov/nchstp_od/PIWeb/niporderform.asp)	_____
___	V2020	Videotape: Immunization Techniques: Safe, Effective, Caring $30	_____
___	D2020	DVD: Immunization Techniques: Safe, Effective, Caring $35	_____
Adult Vaccination Guide (details p. 22)			
SOLD OUT — Book available free to download at www.immunize.org/guide			
___	R2070	Adults Only Vaccination: A Step-by-Step Guide (includes the two videotapes listed above) ..... ~~$75~~	_____
Record cards (details p. 22)			
___	R2005	Adult immunization record cards: 250 cards/box; 1 box—$35; 2 boxes—$65; 3 boxes—$90; 4 boxes—$110 ..... $	_____
Subscriptions to our publications			
___	J1001	*Needle Tips,* 1-year subscription (2 issues) FREE with a contribution $25	_____
___	J2001	*Vaccinate Adults,* 1-year subscription (2 issues) $20	_____
___	J3001	*Vaccinate Women,* 1-year subscription (1 issue) $10	_____

Grand Total $_____

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To access IAC print materials (and VISs in more than 30 languages), visit www.immunize.org/free

Your support is vital to IAC's expanding work in disease prevention!

Deborah L. Wexler, MD
IAC Executive Director

Dear Friend of Immunization,

For 15 years, IAC's most important work has been providing you with timely and reliable immunization information. In 1990, that meant developing and distributing immunization materials for health professionals and their patients.

In 2005, it means all that, *plus* publishing three periodicals—*Needle Tips, Vaccinate Adults,* and *Vaccinate Women*—and mailing them to more than 300,000 health professionals twice a year, publishing two email news services, maintaining four websites, and much more. At IAC, we keep ourselves informed about immunization news, whether it's reported in academic journals, on government websites, or in the popular press. Then, we make that information available to you through the mail and online.

Following are IAC's three most popular online resources. If you haven't done so already, please take a few minutes to review them. You'll find them to be sources of authoritative vaccine information—ones to which you can direct your colleagues, patients, and others with confidence.

★**IAC Express,** our weekly email immunization listserv, gives you a "heads up" on vaccine news, and alerts you to sources of valuable education materials for professionals and patients. (See page 5 to learn how to subscribe.)

★**www.immunize.org,** our main website for health professionals, puts *thousands* of practical resources at your fingertips—comprehensive information about vaccine delivery; VISs in more than 30 languages; new vaccine recommendations, and CDC-reviewed, ready-to-copy materials for patients.

★**www.vaccineinformation.org,** our website for parents and professionals, is a reliable, user-friendly source of immunization information. It includes Q&As on vaccines and vaccine-preventable diseases (VPDs), as well as compelling video clips and hundreds of photos of people with VPDs.

Providing you with high-quality print and online resources is costly for IAC. Please consider taking a few minutes now to make a year-end contribution. Your donation is tax deductible, serves the worthwhile goal of disease prevention, is vital to IAC's work, and is—most of all—deeply appreciated.

Deborah L. Wexler, MD
Deborah L. Wexler, MD
Executive Director

Can you please help us save lives? No amount is too small.

Thank you to CDC!
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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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