



Medical Assistance Program Bulletin

Colorado Title XIX
Fiscal Agent



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Medical Assistance Program Fiscal Agent Information on the Internet

www.chcpf.state.co.us

Click on the Provider Services tab at the top of the web page

Medical Assistance Program bulletins contain important policy and billing information and should be shared promptly with billing staff.

Bulletins supplement information in the Medical Assistance Program Provider Manual and should be retained with the provider manual for reference. Retain all bulletins until published notification advises that the information is obsolete or reproduced in subsequent bulletins or provider manual updates.

Please direct questions about bulletins and billing information to Medical Assistance Program Provider Services.

Distribution: Practitioners, Home Health, Hospitals and Clinics

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Immunizations Benefit Update

This bulletin provides a summary of the Colorado Medical Assistance Program immunization benefits. Please retain this bulletin with your Medical Assistance Program Provider Manual for reference.

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Immunizations for Children (Under Age 21)

Immunizations for children under age 21 are a Medical Assistance Program benefit when medically necessary. Medical necessity may include : when needed to enter the work force, or to attend school.



Immunization benefits for children are provided through the Medical Assistance Program's Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program for children.

Immunizations for Adults (Ages 21 and Older)

Immunizations for adults ages 21 and older are a Medical Assistance Program benefit when medically necessary. Medical necessity may include: when needed to enter the work force, or to attend school.

Please note: For all clients, immunizations for the sole purpose of international travel are not a benefit.

Colorado Department of Public Health and Environment (CDPHE) Vaccine Programs for Children

The CDPHE furnishes some vaccines to medical providers at no cost through two programs, the federal Vaccines For Children (VFC) Program and the Colorado Infant Immunization Program. Vaccines available from the VFC and the Infant Immunization Programs are shown on Attachment A.

Vaccines for Children (VFC) Program

Children under age 19 are eligible to receive vaccines at no cost through the VFC Program if they are:

- On Medicaid,
- Uninsured,
- American Indian/Native Alaskan, or
- Underinsured (only eligible when provided by RHCs or FQHCs. Children are considered underinsured if their insurance does not provide immunizations as a regular benefit).



Colorado Infant Immunization Program



The Colorado Infant Immunization Program furnishes vaccines at no cost to providers for Medical Assistance Program clients who are 19 and 20 years of age. The vaccines are provided only for clients on Medicaid at the time of service. The free vaccine obtained through the Infant Immunization Program may be used only for Medical Assistance Program clients ages 19 and 20.

CDPHE monitors vaccine usage by comparing the number of doses billed to the Medical Assistance Program with the number of vaccine doses shipped to providers. Only doses billed to and paid for by the Medical Assistance Program are recognized. It is important that providers use accurate procedure codes and bill vaccine doses to the Medical Assistance Program as soon as possible after the vaccine is administered.

Immunization Program Participation

Participation in the VFC and Infant Immunization Programs is voluntary. Providers, including but not limited to private practitioners, managed care providers, public health agencies, RHCs, hospital outpatient clinics, and FQHCs, who wish to participate in the immunization programs must enroll with the CDPHE. The Medical Assistance Program pays providers an Administration, Recordkeeping and Tracking (ART) fee for immunizations that are available through the VFC or Infant Immunization Program. Because vaccine is available at no cost through these programs, providers who choose to obtain vaccine from other suppliers may not request nor receive reimbursement in addition to the ART payment.



Information about the CDPHE immunization programs is available from:

Colorado Department of Public Health and Environment (CDPHE)
Immunization Program
DCEED-IMM-A4
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Phone 303-692-2798/303-692-2363

Providers are required to give clients the federally required "Important Information Statement" or, for vaccines covered by the national Vaccine Injury Compensation Program, the appropriate "Vaccine Information Statement". These statements may be downloaded from the Centers for Disease Control and Prevention (CDC) website at: <http://www.cdc.gov/nip/publications/VIS/default.htm>.

General Billing Instructions



Any qualified Medical Assistance Program-enrolled provider including but not limited to private practitioners, public health agencies, RHCs, hospital outpatient clinics, and FQHCs may provide immunization services. Providers must use CPT procedure codes to submit all immunization claims. Providers should verify the accuracy of claims submitted for DTaP, DT Tdap, and Td immunizations. CDPHE Infant Immunization Program auditing shows a significant number of billing errors. Accurate coding is important. Please refer to the Immunization Coding Quick Reference (Attachment A).

Children's Immunizations

Immunizations can be given during an EPSDT Periodic Screening appointment and/or during an EPSDT Inter-periodic visit.

- If immunizations are given during an **EPSDT Periodic Screening** appointment or during any other medical care appointment, referred to as an **EPSDT Inter-periodic visit**, submit claims on the Colorado 1500 or 837 Professional (P) using the appropriate Evaluation and Management CPT and diagnosis codes which may include "Need for Vaccination" codes, V03.0 through V06.9. Practitioners must maintain records that document the full nature and extent of the services rendered during this visit.
- If immunization is the **only service** provided to a Medical Assistance Program client under age 21, the service must be billed on the Colorado 1500 or 837P. Practitioners should use the appropriate Evaluation and Management CPT and diagnosis codes, which may include "Need for Vaccination" codes, V03.0 through V06.9.

Adult Immunizations

Providers must submit claims for adult immunization services on the Colorado 1500 or 837 professional claim form. Providers must bill using the correct CPT code for each administered immunization. If an immunization is the only service rendered, providers **may not** submit charges for an Evaluation/Management (E/M) service. A \$2.00 administration reimbursement is automatically added to the payment for each vaccine. If E/M services are rendered in addition to the immunization administration, enter the diagnosis and appropriate procedure code on the claim.



Provider-Specific Billing Instructions

Managed Care Programs

Medical Assistance Program Health Maintenance Organization (HMO) or Prepaid Inpatient Health Plan (PIHP) enrolled clients must receive immunization services from the HMO or PIHP and providers may not bill Medicaid for vaccines provided to these clients. For clients enrolled in the Primary Care Physician Program (PCPP), the primary care physician (PCP) should provide the immunization services.



Outpatient, Emergency Room, or Inpatient Hospital

Immunization administration may be billed as part of an OP or ER visit when the visit is for medical reasons. OP or ER visits cannot be billed for the sole purpose of immunization administration. Administration of an immunization at the time of an inpatient stay is included in the DRG.

Federally Qualified Health Centers (FQHCs) and Rural Health Centers (RHCs)

FQHCs and RHCs may not bill an encounter rate for only administering an immunization. Encounters for other reasons may include the administration of the immunization, but the immunization administration does not change the reimbursement to the FQHC or RHC for the original encounter. If an immunization is the only service provided, the provider should bill on the Colorado 1500 or 837 professional claim form (see General Billing Instructions section).

Nursing Facilities

Nursing facility residents may receive immunizations if ordered by their physician. The skilled nursing component for immunization administration is included in the facility's rate. The vaccine itself may be billed directly to the Medical Assistance Program by a Medical Assistance Program-enrolled pharmacy. The pharmacy must bill the appropriate National Drug Code (NDC) for the individual vaccine dose under the client's Medical Assistance Program ID.

Home Health

A client confined to the home and receiving home health services may receive an immunization if the administration is part of a normally scheduled home health visit. A home health visit for sole purpose of immunization administration is not a benefit. The pharmacy bills the vaccine as an individual dose under the client's Medical Assistance Program ID. The home health agency may not bill for the vaccine.



Alternative Health Care Facilities (ACFs) / Group Homes

Residents of an ACF may receive immunizations from their own physician. They may also receive vaccines under home health as stated above in the home health guideline.

The Medical Assistance Program does not pay for home health agencies, physicians, or other non-physician practitioners to go to nursing facilities, group homes, or residential treatment centers to administer immunizations (for example: flu vaccines) to groups of clients.

Reimbursement for Children's Immunizations

Vaccines Not Available Through the VFC and Infant Immunization Programs



Medically necessary vaccines that are not provided to practitioners at no cost by the VFC or Infant Immunization Program are reimbursed using the following formula:

Average Wholesale Price (AWP) + 10 percent + \$2.00 for administration

Vaccines Available Through the VFC and Infant Immunization Programs

The Medical Assistance Program pays providers an Administration, Recordkeeping and Tracking (ART) fee for immunizations that are available through the VFC or Infant Immunization Program. Because vaccine is available at no cost through these programs, providers who choose to obtain vaccine from other suppliers may not request nor receive reimbursement above the ART payment. Vaccines available from the VFC and Infant Immunization Programs are shown on Attachment A.

Private practitioners – ART Payment

Practitioners billing for immunizations for Medical Assistance Program-enrolled children (under age 21) when vaccine is available at no-cost from the CDPHE VFC Program are paid an ART fee of \$6.50 for each immunization.

Public Health Agencies – ART Payment

Public health agencies are eligible to receive vaccines at no cost from the CDPHE VFC Program, for administration to eligible children under age 21. The clinic may bill and be reimbursed the \$2.00 ART fee for each immunization.



Reimbursement for Adult Immunizations

Immunizations for adults ages 21 and older are reimbursed when medically necessary, including when needed to enter the work force, or when needed to attend school. Adult immunizations are reimbursed using the following formula:

Average Wholesale Price (AWP) + 10 percent + \$2.00 for administration

Medicare crossover claims



For Medicare crossover claims, the Medical Assistance Program pays the Medicare deductible and coinsurance or, the Medical Assistance Program allowed benefit minus the Medicare payment, whichever amount is less. If Medicare's payment for immunization services is the same or greater than the Medical Assistance Program allowable benefit, no additional payment is made. If Medicare pays 100% of the Medicare allowable, the Medical Assistance Program makes no additional payment.

Influenza Vaccine

Influenza vaccine is a benefit for all Medical Assistance Program clients who have full benefits. Valid CPT codes are as follows:

CPT Code	Valid Ages	Reimbursement for children (under age 21)	Reimbursement for adults (age 21 and older)
90655	6 – 35 months	\$6.50 (\$2.00 for health departments)	Not a benefit
90656	3 years and above	\$6.50 (\$2.00 for health departments)	\$11.89
90657	6 – 35 months	\$6.50 (\$2.00 for health departments)	Not a benefit
90658	3 years and above	\$6.50 (\$2.00 for health departments)	\$11.89
90660	5 – 20 years	\$6.50 (\$2.00 for health departments)	Not a benefit

CPT codes 90465 – 90474 for vaccine administration are not a benefit. Please note that CPT code 90660, Influenza virus vaccine, live, for intranasal use (brand name FluMist) is not a benefit for adults aged 21 or older. For more information on FluMist, please see the Centers for Disease Control Vaccine Information Statement at:

<http://www.cdc.gov/nip/publications/VIS/vis-flulive.pdf>

For clients under age 21, influenza vaccine reimbursement is limited to an Administration, Recordkeeping and Tracking (ART) fee of \$6.50 for private practitioners and \$2.00 for public health agencies. Because influenza vaccine is available at no cost through the Vaccines for Children (VFC) and Infant Immunization Programs, providers who choose to obtain vaccine from other suppliers may not request nor receive reimbursement in addition to the ART payment.

Free influenza vaccine is available through the VFC Program and the Colorado Infant Immunization Program for Medical Assistance Program-enrolled children (under age 21) meeting any of the following criteria:

- Children aged 6 months through 23 months
- Children and adolescents aged 6 months through 18 years with chronic disorders of the pulmonary or cardiovascular systems, including asthma
- Children and adolescents aged 2 through 18 years who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by HIV)
- Children and adolescents aged 2 through 18 years who are receiving long-term aspirin therapy and may therefore be at risk for developing Reye's Syndrome after influenza
- Children and adolescents aged 2 through 18 years who are residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions
- Adolescent females aged <19 years who will be pregnant during influenza season
- Children (6 months – 18 years) who have any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration
- Children and adolescents aged 2 years through 18 years who are household contacts or out-of-home caregivers of persons in the following high-risk groups:
 1. Children less than 2 years old
 2. Adults aged 50 years or older
 3. Persons with chronic disorders of the pulmonary or cardiovascular systems, including asthma
 4. Persons who have required regular medical follow-up or hospitalization during the preceding year for chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by HIV)
 5. Children and adolescents ages 2 through 18 years who are receiving long-term aspirin therapy and may therefore be at risk for developing Reye syndrome after influenza
 6. Residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions
 7. Women who will be pregnant during influenza season



8. Persons who have any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration

For questions or additional information regarding the VFC Program, please contact Rosemary Spence at 303-692-2798

Vaccine indications



Influenza immunization is strongly recommended for individuals who are six months of age or older and because of age or underlying medical conditions are at increased risk for complications of influenza. Health care workers and other contacts (including household contacts) of individuals in high-risk groups should also be vaccinated.

High-risk groups include:

- Children who meet the criteria for VFC influenza vaccine (see previous section)
- Persons 65 years of age and older
- Persons with chronic disorders of the pulmonary or cardiovascular systems, including asthma
- Persons who have required regular medical follow-up or hospitalization during the proceeding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications)
- Residents of nursing homes and other chronic-care facilities that house persons at any age who have chronic medical conditions

Flu vaccine may also be administered to individuals who wish to reduce the chance of becoming infected with influenza.

Dosages

At risk children should receive vaccine in an age appropriate dosage (0.25 ml if age 6-35 months or 0.5 ml if age \geq 3 years). Two doses of vaccine are recommended for children less than 9 years of age if they have not been previously vaccinated for influenza. The two doses should be administered at least one month apart and, if possible, the second dose should be given before December. *Note: Only one dose is necessary if a child has received one dose of influenza vaccine in any previous year.*

Synagis Immune Globulin

Synagis (Palivizumab) is used to prevent serious lower respiratory tract disease caused by Respiratory Syncytial Virus (RSV) in pediatric patients at high risk for RSV disease. Synagis is administered by intramuscular injections, at 15 mg per kg of body weight, once a month during expected periods of RSV frequency in the community.

When Administered in a Provider's Office or Outpatient Hospital:

Synagis does not require Prior Authorization under the following circumstances:

- The client is under age 3 at the start of the current RSV season or at the time of the first injection for the current RSV season, with a chronic lung or respiratory condition, and was either full term or premature.
- The client was born prematurely, less than 28 weeks, and is under the age of 12 months at time of first injection, with or without a chronic lung or respiratory condition (e.g., ICD9 765.0).
- The client was born prematurely, 29-35 weeks, and is under the age of 6 months at time of first injection, with or without a chronic lung or respiratory condition (e.g., ICD9 765.1).



Prior authorization is required for:

1. Children age 3 or older at the start of each RSV season, or
2. Children who do not meet the above criteria but whose physician believes that they medically require Synagis.
3. The client's risk is increased due to one or more of the following conditions, as recommended by the American Academy of Pediatrics:
 - Body Mass <5kg
 - Congenital Heart Disease
 - Low Socioeconomic Status
 - T-cell immunodeficiency
 - Passive smoke exposure
 - Birth within 6 months before onset of RSV season
 - Day care attendance
 - Two or more individuals sharing a bedroom
 - School age siblings
 - Multiple births

Providers administering Synagis in the office must furnish the immune globulin and must use CPT code 90378 to bill Synagis on the CO 1500 or 837 professional claim format. Bill one unit per 50mg vial; limit 6 units per day. Providers may not ask clients to obtain Synagis from a pharmacy and bring it to the practitioner's office for administration. Outpatient hospitals should bill using the appropriate revenue code.

Prior Authorization Requests (PARs) should be sent to:



PARs,
P.O. Box 30
Denver, CO 80201-0030.

For questions, providers may contact the fiscal agent's prior authorization line at 303-534-0279 or 1-800-237-7647

When Administered At Home Or In a Long-Term Care Facility:

A **prior authorization is required** when Synagis is dispensed by a pharmacy and administered at home or in a long-term care facility. The prior authorization will be approved for six months for a diagnosis of RSV or the prevention of RSV. Only physicians and pharmacists from long-term care pharmacies and infusion pharmacies, who are acting as the agents of the physicians, may request a prior authorization. When the prior authorization is approved, the pharmacy should bill the Medical Assistance Program electronically at the point of sale.

Prior authorizations may be requested by calling or faxing a Pharmacy Prior Authorization Request (PAR) to the ACS prior authorization help desk:

Phone number: 1-800-365-4944

Fax number: 1-888-772-9696



Please direct questions about Medical Assistance Program billing or the information in this bulletin to:

**Medical Assistance Program Provider Services at:
303-534-0146 or 1-800-237-0757 (Toll free Colorado)**

**Remember to check the Department's website at: <http://www.chcpf.state.co.us>
For Provider Updates and News**



Immunization Coding Quick Reference

Practitioners billing for immunizations to Medical Assistance Program-enrolled children (under age 21) when vaccine is available at no-cost through the Vaccines for Children and Infant Immunization Programs are paid an Administration Recordkeeping and Tracking (ART) fee of \$6.50 for each immunization.

Public health agencies billing for immunizations to Medical Assistance Program-enrolled children (under age 21) when vaccine is available at no-cost through the Vaccines for Children and Infant Immunization Programs are paid an Administration Recordkeeping and Tracking (ART) fee of \$2.00 for each immunization.

Medically necessary vaccines that are not provided to practitioners at no cost by the VFC or Infant Immunization Programs, are reimbursed using the following formula:

$$\text{Average Wholesale Price (AWP) + 10 percent + \$2.00 for administration}$$

Key

Ig – immune globulin

INJ – jet injection

SQ – subcutaneous

IM – intramuscular

IV – intravenous

vacc – vaccine

Code	Description	Covered Ages “All” = all adults and children	VFC Program Benefit Ages 0-18	Infant Immunization Program Benefit Ages 19-20
Immune Globulins				
90281	Human Ig, IM	All		
90283	Human Ig, IV	All		
90287	Botulinum antitoxin, equine	All		
90288	Botulism Ig, IV	All		
90291	CMV Ig, IV	All		
90296	Diphtheria antitoxin, equine	All		
90371	Hep B Ig, IM	All		
90375	Rabies Ig, IM/SQ	All		
90376	Rabies Ig, heat-treated, IM/SQ	All		
90378	RSV Ig, IM, 50mg (Synagis)	0-2		
90379	RSV Ig, IV	0-2		
90384	Rh Ig, full-dose, IM	All		
90385	Rh Ig, mini-dose, IM	All		
90386	Rh Ig, IV	All		
90389	Tetanus Ig, IM	All		
90393	Vaccinia Ig, IM	All		
90396	Varicella-zoster Ig, IM	All		
90399	Unlisted immune globulin	All		
Vaccines, Toxoids				
90476	Adenovirus vacc, type 4, oral	All		
90477	Adenovirus vacc, type 7, oral	All		
90632	Hep A vacc, adult, IM	19+		√
90633	Hep A vacc, ped/adol, 2 dose, IM	0-18	√	
90636	Hep A & Hep B vacc adult, IM	19+		
90647	Hib vacc, PRP-OMP, 3 dose, IM	0-4	√	

Code	Description	Covered Ages "All" = all adults and children	VFC Program Benefit Ages 0-18	Infant Immunization Program Benefit Ages 19-20
90648	Hib vacc, PRP-T, 4 dose, IM	0-4	√	
90649	H papilloma vacc 3 dose, IM	Code 90649 is not a benefit at this time.		
90655	Flu vacc, 6-35 mo, preserv free, IM	0-2	√	
90656	Flu vacc, 3 yrs +, preserv free, IM	3+	√	√
90657	Flu vacc, 6-35 mo, IM	0-2	√	
90658	Flu vacc, 3 yrs +, IM	3+	√	√
90660	Flu vacc, live, intranasal	5-20	√	√
90669	Pneum conj vacc, polyval, < 5 yrs, IM	0-4	√	
90675	Rabies vacc, IM	All		
90700	DTaP vacc, < 7 yrs, IM	0-6	√	
90702	DT vacc, < 7 yrs, IM	0-6	√	
90703	Tetanus vacc, IM	All		
90704	Mumps vacc, SQ	All		
90705	Measles vacc, SQ	All		
90706	Rubella vacc, SQ	All		
90707	MMR vacc, SQ	All	√	√
90708	Measles-rubella vacc, SQ	All		
90710	MMRV vacc, SQ	1-12	√	
90713	Poliovirus vacc, IPV, SQ, IM	All	√	√
90714	Td vacc, 7 yrs +, preserv free, IM	7+	√	√
90715	Tdap vacc, 7 yrs +, IM	7+	√	√
90716	Varicella (chicken pox) vacc, SQ	All	√	√
90718	Td vacc, 7 yrs +, IM	7+	√	√
90719	Diphtheria vacc, IM	All		
90721	DTaP/Hib vacc, IM	0-6		
90723	DTaP-Hep B-IPV vacc, IM	0-6	√	
90732	Pneum polysacc vacc, 23 valent, adult or ill pat, SQ/IM	2+		
90733	Meningococcal polysacc vacc, SQ	All		
90734	Meningococcal conj vacc, serogrp A, C, Y, W-135, IM	2+		
90735	Encephalitis vacc, SQ	All		
90736	Zoster vacc, SQ	Code 90736 is not a benefit at this time.		
90740	Hep B vacc, ill pat, 3 dose, IM	All	√	√
90743	Hep B vacc, adol, 2 dose, IM	11-15		
90744	Hep B vacc, ped/adol, 3 dose, IM	0-18	√	
90746	Hep B vacc, adult, IM	20+		√
90747	Hep B vacc, ill pat, 4 dose, IM	All	√	√
90748	Hep B/Hib vacc, IM	0-4	√	
90749	Unlisted vaccine/toxoid	All		
S0195	Pneum conj, polyvalent, IM, 5-9 yrs with no previous dose	5-9	√	

DEPARTMENT OF HEALTH AND HUMAN SERVICES • CENTERS FOR DISEASE CONTROL AND PREVENTION

Recommended Immunization Schedule for Ages 0–6 Years UNITED STATES • 2007

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years
Hepatitis B ¹	HepB		HepB	<i>see footnote 1</i>	HepB			HepB Series				
Rotavirus ²				Rota	Rota	Rota						
Diphtheria, Tetanus, Pertussis ³				DTaP	DTaP	DTaP		DTaP				DTaP
<i>Haemophilus influenzae</i> type b ⁴				Hib	Hib	<i>Hib</i> ⁴	Hib		Hib			
Pneumococcal ⁵				PCV	PCV	PCV	PCV			PCV PPV		
Inactivated Poliovirus				IPV	IPV	IPV					IPV	
Influenza ⁶						Influenza (Yearly)						
Measles, Mumps, Rubella ⁷							MMR					MMR
Varicella ⁸							Varicella					Varicella
Hepatitis A ⁹							HepA (2 doses)			HepA Series		
Meningococcal ¹⁰										MPSV4		

- Range of recommended ages
- Catch-up immunization
- Certain high-risk groups

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children through age 6 years. For additional information see www.cdc.gov/nip/recs/child-schedule.htm. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components

of the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at www.vaers.hhs.gov or by telephone, 800-822-7967.

1. Hepatitis B vaccine (HepB). *(Minimum age: birth)***At birth:**

- Administer monovalent HepB to all newborns prior to hospital discharge.
- If mother is HBsAg-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine the HBsAg status as soon as possible and if HBsAg-positive, administer HBIG (no later than age 1 week).
- If mother is HBsAg-negative, the birth dose can only be delayed with physician's order and mothers' negative HBsAg laboratory report documented in the infant's medical record.

Following the birth dose:

- The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1–2 months. The final dose should be administered at age ≥ 24 weeks. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of 3 or more doses in a licensed HepB series, at age 9–18 months (generally at the next well-child visit).

4-month dose of HepB:

- It is permissible to administer 4 doses of HepB when combination vaccines are given after the birth dose. If monovalent HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

2. Rotavirus vaccine (Rota). *(Minimum age: 6 weeks)*

- Administer the first dose between 6 and 12 weeks of age. Do not start the series later than age 12 weeks.
- Administer the final dose in the series by 32 weeks of age. Do not administer a dose later than age 32 weeks.
- There are insufficient data on safety and efficacy outside of these age ranges.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). *(Minimum age: 6 weeks)*

- The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 4–6 years.

4. Haemophilus influenzae type b conjugate vaccine (Hib). *(Minimum age: 6 weeks)*

- If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required.
- TriHiBit® (DTaP/Hib) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in ≥ 12 months olds.

5. Pneumococcal vaccine. *(Minimum age: 6 weeks for Pneumococcal Conjugate Vaccine (PCV); 2 years for Pneumococcal Polysaccharide Vaccine (PPV))*

- Administer PCV at ages 24–59 months in certain high-risk groups. Administer PPV to certain high-risk groups aged ≥ 2 years. See *MMWR* 2000; 49(RR-9):1–35.

6. Influenza vaccine. *(Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV))*

- All children aged 6–59 months and close contacts of all children aged 0–59 months are recommended to receive influenza vaccine.
- Influenza vaccine is recommended annually for children aged ≥ 59 months with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See *MMWR* 2006; 55(RR-10):1–41.
- For healthy persons aged 5–49 years, LAIV may be used as an alternative to TIV.
- Children receiving TIV should receive 0.25 mL if aged 6–35 months or 0.5 mL if aged ≥ 3 years.
- Children aged < 9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥ 4 weeks for TIV and ≥ 6 weeks for LAIV).

7. Measles, mumps, and rubella vaccine (MMR). *(Minimum age: 12 months)*

- Administer the second dose of MMR at age 4–6 years. MMR may be administered prior to age 4–6 years, provided ≥ 4 weeks have elapsed since the first dose and both doses are administered at age ≥ 12 months.

8. Varicella vaccine. *(Minimum age: 12 months)*

- Administer the second dose of varicella vaccine at age 4–6 years. Varicella vaccine may be administered prior to age 4–6 years, provided that ≥ 3 months have elapsed since the first dose and both doses are administered at age ≥ 12 months. If second dose was administered ≥ 28 days following the first dose, the second dose does not need to be repeated.

9. Hepatitis A vaccine (HepA). *(Minimum age: 12 months)*

- HepA is recommended for all children at 1 year of age (i.e., 12–23 months). The 2 doses in the series should be administered at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See *MMWR* 2006; 55(RR-7):1–23.

10. Meningococcal polysaccharide vaccine (MPSV4). *(Minimum age: 2 years)*

- Administer MPSV4 to children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See *MMWR* 2005;54 (RR-7):1–21.

The Childhood and Adolescent Immunization Schedule is approved by:

Advisory Committee on Immunization Practices www.cdc.gov/nip/acip • American Academy of Pediatrics www.aap.org • American Academy of Family Physicians www.aafp.org

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DEPARTMENT OF HEALTH AND HUMAN SERVICES • CENTERS FOR DISEASE CONTROL AND PREVENTION

Recommended Immunization Schedule for Ages 7–18 Years UNITED STATES • 2007

Vaccine ▼	Age ►	7-10 years	11-12 YEARS	13-14 years	15 years	16-18 years
Tetanus, Diphtheria, Pertussis ¹	see footnote 1		Tdap		Tdap	
Human Papillomavirus ²	see footnote 2		HPV (3 doses)		HPV Series	
Meningococcal ³		MPSV4	MCV4		MCV4³	MCV4
Pneumococcal ⁴			PPV			
Influenza ⁵			Influenza (Yearly)			
Hepatitis A ⁶			HepA Series			
Hepatitis B ⁷			HepB Series			
Inactivated Poliovirus ⁸			IPV Series			
Measles, Mumps, Rubella ⁹			MMR Series			
Varicella ¹⁰			Varicella Series			

- Range of recommended ages
- Catch-up immunization
- Certain high-risk groups

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children aged 7–18 years. For additional information see www.cdc.gov/nip/recs/child-schedule.htm. Any dose not administered at the recommended earlier age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of

the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at www.vaers.hhs.gov or by telephone, **800-822-7967**.

FOOTNOTES
1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).*(Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL™)*

- Administer at age 11–12 years for those who have completed the recommended childhood DTP/DaP vaccination series and have not received a Td booster dose.
- Adolescents 13–18 years who missed the 11–12 year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTP/DaP vaccination series.

2. Human papillomavirus vaccine (HPV). *(Minimum age: 9 years)*

- Administer the first dose of the HPV vaccine series to females at age 11–12 years.
- Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose.
- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

3. Meningococcal vaccine. *(Minimum age: 11 years for meningococcal conjugate vaccine (MCV4); 2 years for meningococcal polysaccharide vaccine (MPSV4))*

- Administer MCV4 at age 11–12 years and to previously unvaccinated adolescents at high school entry (~15 years of age).
- Administer MCV4 to previously unvaccinated college freshmen living in dormitories; MPSV4 is an acceptable alternative.
- Vaccination against invasive meningococcal disease is recommended for children and adolescents aged ≥ 2 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See *MMWR* 2005;54 (RR-7):1-21. Use MPSV4 for children aged 2–10 years and MCV4 or MPSV4 for older children.

4. Pneumococcal polysaccharide vaccine (PPV).*(Minimum age: 2 years)*

- Administer for certain high-risk groups. See *MMWR* 1997; 46(RR-08):1–24 and *MMWR* 2000; 49(RR-9):1-35.

5. Influenza vaccine. *(Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV))*

- Influenza vaccine is recommended annually for persons with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See *MMWR* 2006; 55(RR-10):1-41.
- For healthy persons aged 5–49 years, LAIV may be used as an alternative to TIV.
- Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥ 4 weeks for TIV and ≥ 6 weeks for LAIV).

6. Hepatitis A vaccine (HepA). *(Minimum age: 12 months)*

- The 2 doses in the series should be administered at least 6 months apart.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See *MMWR* 2006; 55(RR-7):1-23.

7. Hepatitis B vaccine (HepB). *(Minimum age: birth)*

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for 11–15 year olds.

8. Inactivated poliovirus vaccine (IPV). *(Minimum age: 6 weeks)*

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥ 4 years.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be given, regardless of the child's current age.

9. Measles, mumps, and rubella vaccine (MMR).*(Minimum age: 12 months)*

- If not previously vaccinated, administer 2 doses of MMR during any visit with ≥ 4 weeks between the doses.

10. Varicella vaccine. *(Minimum age: 12 months)*

- Administer 2 doses of varicella vaccine to persons without evidence of immunity.
- Administer 2 doses of varicella vaccine to persons aged ≤ 13 years at least 3 months apart. Do not repeat the second dose, if administered ≥ 28 days following the first dose.
- Administer 2 doses of varicella vaccine to persons aged ≥ 13 years at least 4 weeks apart.

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