



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

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the top of the web page

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Hospitals and Clinics** **December 2004**

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Immunizations Benefit Update

This bulletin provides a comprehensive 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 (Ages 0-20)

Immunizations for children ages 0-20 are a Medical Assistance Program benefit when medically necessary, when needed to enter the work force, or when needed 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+)

Immunizations for adults ages 21 and older are a Medical Assistance Program benefit when medically necessary, when needed to enter the work force, or when needed 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 who are age eighteen and under are eligible to receive vaccines at no cost through the VFC program if they are:

- Medical Assistance Program-enrolled,
- 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).

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.

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 Medical Assistance Program-enrolled clients. The free vaccine obtained through the Infant Immunization program may be used only for Medical Assistance Program clients ages 19 and 20.

Vaccine usage is monitored 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 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 the practitioner is submitting a paper claim for the EPSDT Periodic Screening appointment, use the ESPDT Claim Form for the screening exam and the immunization.
- If immunization is the **only service** provided to a Medical Assistance Program client ages 20 and under, the service must be billed on the Colorado 1500 or 837 P. 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 Health Plan (PHP) enrolled clients must receive immunization services from the HMO or PHP. 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.

FQHCs and 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 considered 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 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 / 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 (ex: 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:

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

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 (newborn through age 20) when vaccine is available at no-cost from the CDPHE 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, for administration to eligible children from birth through age 20. 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, when needed to enter the work force, or when needed to attend school. Adult immunizations are reimbursed using the following formula:

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

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 (CPT codes 90655, 90657 and 90658) is a benefit for all Medical Assistance Program clients. *Please note that CPT code 90659 (influenza virus vaccine, whole virus, for intramuscular or jet injection use) is no longer valid. Claims submitted with code 90659 are denied.* Influenza virus vaccine for intranasal use (CPT code 90660) is *not* a benefit of the Colorado Medical Assistance program.

Free influenza vaccine is available through the VFC program and the Colorado Infant Immunization program for Medical Assistance Program-enrolled children (newborn through age 20) meeting any of the following criteria:

- Children ages 6 months through 23 months
- Children and adolescents ages 6 months through 18 years with chronic disorders of the pulmonary or cardiovascular systems, including asthma
- Children and adolescents ages 6 months 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)
- Children and adolescents ages 6 months through 18 years who are receiving long-term aspirin therapy and may be at risk for developing Reye syndrome after influenza
- Children and adolescents ages 2 years through 18 years who are household contacts of children less than 6 months old
- Children and adolescents ages 6 months 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

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 preceding 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.*

Reimbursement

For clients ages 0-20, 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 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. Influenza vaccines for clients ages 21 and older are reimbursed using the following formula:

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

Pediarix® Five-in-One Combination Vaccine

Pediarix®, produced by GlaxoSmithKline, is a five-in-one combination vaccine that protects against diphtheria, tetanus, pertussis, polio, and hepatitis B diseases. The vaccine is available through the VFC program at the CDPHE.

On May 1, 2003, Pediarix® became a Colorado Medical Assistance program benefit. All providers must use CPT code 90723 when billing for Pediarix®. Reimbursement is limited to the Administration, Recordkeeping and Tracking (ART) fee of \$6.50 for private practitioners and \$2.00 for public health agencies. Because Pediarix® is available at no cost through the VFC program, providers who choose to obtain the vaccine from other suppliers may not request nor receive reimbursement in addition to the ART payment.

For more information on Pediarix® please visit the following website:

“Notice to Readers: FDA Licensure of Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Hepatitis B (Recombinant), and Poliovirus Vaccine Combined, (PEDIARIX®) for Use in Infants”
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5210a8.htm>

For questions about Pediarix®, please call:

Rosemary Spence at 303-692-2798 or Joni Reynolds, RNC, MSN at 303-692-2363

Synagis Vaccine

Synagis (Palivizumab) vaccine 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.

Synagis is a benefit of the Medical Assistance Program, and 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 ages 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 the vaccine.

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

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

A prior authorization is required for Synagis vaccine administered at home. The prior authorization request must be called in to PDCS at 1-800-365-4944. When the prior authorization is approved, the pharmacy should bill the Medical Assistance Program electronically at point of sale. The client may pick up the prescription at the pharmacy.

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

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 (newborn through age 20) 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 (newborn through age 20) 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
<u>Immune Globulins</u>				
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		
<u>Vaccines, Toxoids</u>				
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+		
90645	Hib vacc HbOC, 4 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
90647	Hib vacc, PRP-OMP, 3 dose, IM	0-4	√	
90648	Hib vacc, PRP-T, 4 dose, IM	0-4	√	
90655	Flu vacc, 6-35 mo, preserv free, IM	0-2	√	
90657	Flu vacc, 6-35 mo, IM	0-2	√	
90658	Flu vacc, 3 yrs +, IM	3+	√	√
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		
90713	Poliovirus vacc, IPV, SQ, IM	All	√	√
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		
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	19+		√
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	√	

Summary of ACIP/AAP/AAFP Pediatric Immunization Recommendations

Colorado Department of Public Health and Environment/Colorado Clinical Guidelines Collaborative

Children Beginning Immunization In Infancy (please see notes on back)

Vaccines¹ are listed under routinely recommended ages. [Bars] indicate range of recommended ages for immunization. Any dose not given at the recommended age should be given as a "catch-up" immunization at any subsequent visit when indicated and feasible. (Circles) indicate vaccines to be given if previously recommended doses were missed or given earlier than the recommended minimum age.

Vaccine	Age	Birth	1 Month	2 Months	4 Months	6 Months	12 Months	15 Months	18 Months	24 Months	4-6 Years	11-12 Years	13-18 Years
V A C C I N E	Hepatitis B ²	Hep B #1			Hep B #2			Hep B #3			Hep B series		
	Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP	see note 3	DTaP ³			DTaP	Td	
	<i>H. influenzae</i> type b ⁴			Hib	Hib	Hib	Hib						
	Polio			IPV	IPV	IPV					IPV		
	Measles, Mumps, Rubella ⁵						MMR				MMR ⁵	MMR ⁵	
	Varicella ⁶						Var				Var ⁶		
	Pneumococcal ⁷				PCV	PCV	PCV	PCV			PCV	PPV	
Hepatitis A ⁸		Vaccines below this line are for selected populations									Hep A ⁸		
Influenza ⁹						Influenza (yearly) ⁹				see note 9			

Accelerated Schedule For Infants And Children Under 7 Years Old Who Start The Series Late

Visit	Vaccine doses
1st visit (at least 4 months of age)	Hep B #1, DTaP #1, Hib, IPV #1, PCV ⁷ , MMR & Var (as soon as child is 12 months), Hep A (as soon as child is 2 years), Influenza (≥ 6-23 months)
4-8 weeks after 1st visit	Hep B #2, DTaP #2, Hib, IPV #2, PCV ⁷
4-8 weeks after 2nd visit	DTaP #3, Hib, IPV #3, PCV ⁷
6 months after 1st visit	Hep B #3, Hep A #2
6 months after 3rd visit	DTaP #4, Hib ⁸
Age 4-6 years (before school entry)	DTaP #5, IPV #4, MMR #2 (at least 4 weeks after MMR #1)
Age 11-16 years	Td

- Immunologically normal children age 5 years and older do not need Hib vaccine. If infant starts series at age 7-11 months, give 2 doses 2 months apart and booster dose at 12-15 months. If infant starts at age 12-14 months, give 1st dose. Give 2nd (and last) dose at least 2 months later. If child starts at age 15 months to 4 years, give just one dose.
- Immunologically normal children age 5 years and older do not need PCV vaccine. If infant starts series at age 2-6 months, give 3 doses, 2 months apart and booster dose at 12-15 months. If infant starts at 7-11 months, give 2 doses, 2 months apart and booster dose at 12-15 months. If infant starts at 12-23 months, give 2 doses, 2 months apart. If healthy child starts series at age 24-59 months, give just one dose. (See *MMWR* Oct. 6, 2000;49(PP-9):1-26).
- The USPHS and the AAP consider DTaP #5 and Polio #4 necessary unless the DTaP #4 and Polio #3 were given after the 4th birthday.
- ACIP recommends an annual influenza vaccination for ALL children ages 6-23 months, unless contraindications are present.

Children Beginning Immunization At Age 7 Years Or Older

Visit	Vaccine doses
1st visit	Hep B #1, Td #1, IPV #1, MMR #1, Var #1, Hep A #1
4-8 weeks after 1st visit	Hep B #2, Td #2, IPV #2, MMR #2, Var #2 (if ≥ 13 years)
6 months after 1st visit	Hep B #3, Hep A #2, IPV #3
6 months after 2nd visit	Td #3
10 years after 3rd Td	Td

Minimum Intervals Between Vaccine Doses

Vaccine	Dose 1-2	Dose 2-3	Dose 3-4	Vaccine	Dose 1-2	Dose 2-3	Dose 3-4
Hep B	4 Weeks	8 Weeks*		IPV	4 Weeks	4 Weeks	4 Weeks
DTaP (DT)	4 Weeks	4 Weeks	6 Months	PCV	4 Weeks**	4 Weeks	6 Weeks**
Hib				MMR	4 Weeks		
HibCC	4 Weeks	4 Weeks	=	Varicella	4 Weeks		
PCP-T	4 Weeks	4 Weeks	=	Hep A	6 Months		
PCP-OMP	4 Weeks	=					

* Hib booster doses should be administered no earlier than 12 months of age and at least 2 months after the previous dose of Hib vaccine.

** For children vaccinated at age <1 year, minimum interval is 4 weeks. Booster dose should be administered ≥3 weeks after primary series is completed. Minimum interval for children receiving doses at age ≥1 year is 2 weeks.

The above table shows the minimum intervals acceptable between doses of vaccines. All vaccines should be administered as close to the recommended schedule as possible in order to maximize the protection from vaccines. It is not necessary to restart the series of any vaccine due to extended intervals between doses.

NOTES

Some of the following notes have sentences which are in bold italics indicating they have been added by the Colorado Department of Public Health and Environment, Immunization Program. These additions have been added as a result of their importance to Colorado and are consistent with recommendations by the Advisory Committee on Immunization Practices.

¹The schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of 1/1/04 for children through 18 years of age. 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 its other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

²**Hepatitis B vaccine (HepB)**. All infants should receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge; the first dose may also be given by age 2 months if the infant's mother is HBsAg-negative. Only monovalent HepB can be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is given. The second dose should be given at least 4 weeks after the first dose, except for combination vaccines which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 6 months.

Infants born to HBsAg-positive mothers should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The 2nd dose is recommended at 1–2 months of age and the 3rd dose at 6 months of age.

Infants born to mothers whose HBsAg status is unknown or others at high risk (e.g. Alaskan Native and Asian-Pacific Islander children and children born to first-generation immigrants from HBV-endemic areas) should receive hepatitis B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than 1 week of age).

All children and adolescents who have not been immunized against hepatitis B may begin the series during any visit. Special efforts should be made to immunize children who were born in or whose parents were born in areas of the world with moderate or high endemicity of hepatitis B virus infection.

³The 4th dose of DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) may be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose and the child is unlikely to return at age 15–18 months. Td (tetanus and diphtheria toxoids) is recommended at 11–12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP or DT. Subsequent routine Td boosters are recommended every 10 years.

⁴Three Haemophilus influenzae type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (Pachas-HIB® or ComVax® [Merck]) is administered at 2 and 4 months of age, a dose at 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary immunization in infants at 2, 4 or 6 months of age, unless FDA-approved for these ages.

⁵The 2nd dose of measles, mumps, and rubella (MMR) vaccine is recommended routinely at 4–6 years of age but may be administered during any visit, provided at least 4 weeks have elapsed since receipt of the 1st dose and that both doses are administered beginning at or after 12 months of age. Those who have not previously received the second dose should complete the schedule by the 11–12 year old visit.

⁶Varicella (Var) vaccine is recommended at any visit on or after the first birthday for susceptible children, i.e. those who lack a reliable history of chickenpox (as judged by a health care provider) and who have not been immunized. Susceptible persons 13 years of age or older should receive 2 doses, given at least 4 weeks apart.

⁷The heptavalent conjugate pneumococcal vaccine (PCV) is recommended for all children 2–23 months of age. It also is recommended for certain children 24–59 months of age. (See *MMWR* Oct. 6, 2000/49(RR-9):1–35). Pneumococcal polysaccharide vaccine (PPV) is also recommended in addition to PCV for certain high-risk groups.

⁸Hepatitis A (Hep A) is shaded to indicate its recommended use in selected states and/or regions, and for certain high risk groups; consult your local public health authority. **Colorado is considered a state with intermediate risk for the disease. Vaccination should be considered for all children ≥2 years of age.** (See *MMWR* Oct. 01, 1999/48(RR12):1–37).

⁹ACIP recommends healthy children age 6–23 months receive influenza vaccine, unless contraindications are present. Influenza vaccine is also recommended annually for children age ≥6 months with certain high risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV, diabetes, and household contacts of persons in groups at high risk; see *MMWR* 2002;51(RR3):1–31), and can be administered to all other wishing to obtain immunity. Children should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6–35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

Immunization Program Resources



Colorado Department
of Public Health
and Environment

General Immunization Questions: (303) 692-2963

Inquiries regarding vaccine orders and supplies:
(303) 692-2650 or
(303) 692-2963

VFC Questions: (303) 692-2799

Hepatitis B Project: (303) 692-2673

Disease Reports: 1-800-866-2759

Family Healthline (Parent Information):
(303) 692-2229 (Denver metro area) or 1-800-688-7777

Website: <http://www.cdph.state.co.us/dcf/immunization/immhom.asp>

COLORADO CLINICAL GUIDELINES COLLABORATIVE

Background

The Colorado Clinical Guidelines Collaborative was formed in 1996 to address the challenges for the use and implementation of clinical guidelines across health care systems in Colorado. Current membership represents 50 health care organizations.

Mission Statement

CCGC is a Colorado coalition of healthcare stakeholders (health plans, physicians, hospitals, employers, government agencies, quality improvement organizations and other entities) working collaboratively to implement systems and processes, using evidenced-based clinical guidelines to improve healthcare outcomes in Colorado.