

Recommended Immunization Schedule for Persons Aged 0 Through 6 Years—United States • 2011

For those who fall behind or start late, see the catch-up schedule

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				HepB					
Rotavirus ²			RV	RV	RV	RV ²						
Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP	DTaP	see footnote ³	DTaP				DTaP
<i>Haemophilus influenzae</i> type b ⁴			Hib	Hib	Hib	Hib ⁴	Hib					
Pneumococcal ⁵			PCV	PCV	PCV	PCV	PCV				PPSV	
Inactivated Poliovirus ⁶			IPV	IPV			IPV					IPV
Influenza ⁷							Influenza (Yearly)					
Measles, Mumps, Rubella ⁸							MMR			see footnote ⁸		MMR
Varicella ⁹							Varicella			see footnote ⁹		Varicella
Hepatitis A ¹⁰							HepA (2 doses)				HepA Series	
Meningococcal ¹¹												MCV4

Range of recommended ages for all children

Range of recommended ages for certain high-risk groups

This schedule includes recommendations in effect as of December 21, 2010. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations: <http://www.cdc.gov/vaccines/pubs/acip-list.htm>. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS) at <http://www.vaers.hhs.gov> or by telephone, 800-822-7967. Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

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

At birth:

- Administer monovalent HepB to all newborns before hospital discharge.
- If mother is hepatitis B surface antigen (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 mother's HBsAg status as soon as possible and, if HBsAg-positive, administer HBIG (no later than age 1 week).

Doses following the birth dose:

- The second dose should be administered at age 1 or 2 months. Monovalent HepB should be used for doses administered before age 6 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
- Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose.
- Infants who did not receive a birth dose should receive 3 doses of HepB on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than age 24 weeks.

2. Rotavirus vaccine (RV). (Minimum age: 6 weeks)

- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks 6 days). Vaccination should not be initiated for infants aged 15 weeks 0 days or older.
- The maximum age for the final dose in the series is 8 months 0 days
- If Rotarix is administered at ages 2 and 4 months, a dose at 6 months is not indicated.

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

- The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.

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

- If PRP-OMP (PedvaxHIB or Comvax [HepB-Hib]) is administered at ages 2 and 4 months, a dose at age 6 months is not indicated.
- Hiberix should not be used for doses at ages 2, 4, or 6 months for the primary series but can be used as the final dose in children aged 12 months through 4 years.

5. Pneumococcal vaccine. (Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPSV])

- PCV is recommended for all children aged younger than 5 years. Administer 1 dose of PCV to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- A PCV series begun with 7-valent PCV (PCV7) should be completed with 13-valent PCV (PCV13).
- A single supplemental dose of PCV13 is recommended for all children aged 14 through 59 months who have received an age-appropriate series of PCV7.
- A single supplemental dose of PCV13 is recommended for all children aged 60 through 71 months with underlying medical conditions who have received an age-appropriate series of PCV7.

- The supplemental dose of PCV13 should be administered at least 8 weeks after the previous dose of PCV7. See *MMWR* 2010;59(No. RR-11).

- Administer PPSV at least 8 weeks after last dose of PCV to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant.

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

- If 4 or more doses are administered prior to age 4 years an additional dose should be administered at age 4 through 6 years.
- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.

7. Influenza vaccine (seasonal). (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])

- For healthy children aged 2 years and older (i.e., those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used, except LAIV should not be given to children aged 2 through 4 years who have had wheezing in the past 12 months.
- Administer 2 doses (separated by at least 4 weeks) to children aged 6 months through 8 years who are receiving seasonal influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
- Children aged 6 months through 8 years who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010–2011 seasonal influenza vaccine. See *MMWR* 2010;59(No. RR-8):33–34.

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

- The second dose may be administered before age 4 years, provided at least 4 weeks have elapsed since the first dose.

9. Varicella vaccine. (Minimum age: 12 months)

- The second dose may be administered before age 4 years, provided at least 3 months have elapsed since the first dose.
- For children aged 12 months through 12 years the recommended minimum interval between doses is 3 months. However, if the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

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

- Administer 2 doses at least 6 months apart.
- HepA is recommended for children aged older than 23 months who live in areas where vaccination programs target older children, who are at increased risk for infection, or for whom immunity against hepatitis A is desired.

11. Meningococcal conjugate vaccine, quadrivalent (MCV4). (Minimum age: 2 years)

- Administer 2 doses of MCV4 at least 8 weeks apart to children aged 2 through 10 years with persistent complement component deficiency and anatomic or functional asplenia, and 1 dose every 5 years thereafter.
- Persons with human immunodeficiency virus (HIV) infection who are vaccinated with MCV4 should receive 2 doses at least 8 weeks apart.
- Administer 1 dose of MCV4 to children aged 2 through 10 years who travel to countries with highly endemic or epidemic disease and during outbreaks caused by a vaccine serogroup.
- Administer MCV4 to children at continued risk for meningococcal disease who were previously vaccinated with MCV4 or meningococcal polysaccharide vaccine after 3 years if the first dose was administered at age 2 through 6 years.

The Recommended Immunization Schedules for Persons Aged 0 Through 18 Years are approved by the Advisory Committee on Immunization Practices (<http://www.cdc.gov/vaccines/recs/acip>), the American Academy of Pediatrics (<http://www.aap.org>), and the American Academy of Family Physicians (<http://www.aafp.org>).

Recommended Immunization Schedule for Persons Aged 7 Through 18 Years—United States • 2011

For those who fall behind or start late, see the schedule below and the catch-up schedule

Vaccine ▼	Age ►	7–10 years	11–12 years	13–18 years	
Tetanus, Diphtheria, Pertussis ¹			Tdap	Tdap	Range of recommended ages for all children
Human Papillomavirus ²	see footnote ²		HPV (3 doses)(females)	HPV Series	
Meningococcal ³		MCV4	MCV4	MCV4	
Influenza ⁴			Influenza (Yearly)		Range of recommended ages for catch-up immunization
Pneumococcal ⁵			Pneumococcal		
Hepatitis A ⁶			HepA Series		Range of recommended ages for certain high-risk groups
Hepatitis B ⁷			Hep B Series		
Inactivated Poliovirus ⁸			IPV Series		
Measles, Mumps, Rubella ⁹			MMR Series		
Varicella ¹⁰			Varicella Series		

This schedule includes recommendations in effect as of December 21, 2010. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations: <http://www.cdc.gov/vaccines/pubs/acip-list.htm>. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS) at <http://www.vaers.hhs.gov> or by telephone, **800-822-7967**.

1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

(Minimum age: 10 years for Boostrix and 11 years for Adacel)

- Persons aged 11 through 18 years who have not received Tdap should receive a dose followed by Td booster doses every 10 years thereafter.
- Persons aged 7 through 10 years who are not fully immunized against pertussis (including those never vaccinated or with unknown pertussis vaccination status) should receive a single dose of Tdap. Refer to the catch-up schedule if additional doses of tetanus and diphtheria toxoid-containing vaccine are needed.
- Tdap can be administered regardless of the interval since the last tetanus and diphtheria toxoid-containing vaccine.

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

- Quadrivalent HPV vaccine (HPV4) or bivalent HPV vaccine (HPV2) is recommended for the prevention of cervical precancers and cancers in females.
- HPV4 is recommended for prevention of cervical precancers, cancers, and genital warts in females.
- HPV4 may be administered in a 3-dose series to males aged 9 through 18 years to reduce their likelihood of genital warts.
- Administer the second dose 1 to 2 months after the first dose and the third dose 6 months after the first dose (at least 24 weeks after the first dose).

3. Meningococcal conjugate vaccine, quadrivalent (MCV4). (Minimum age: 2 years)

- Administer MCV4 at age 11 through 12 years with a booster dose at age 16 years.
- Administer 1 dose at age 13 through 18 years if not previously vaccinated.
- Persons who received their first dose at age 13 through 15 years should receive a booster dose at age 16 through 18 years.
- Administer 1 dose to previously unvaccinated college freshmen living in a dormitory.
- Administer 2 doses at least 8 weeks apart to children aged 2 through 10 years with persistent complement component deficiency and anatomic or functional asplenia, and 1 dose every 5 years thereafter.
- Persons with HIV infection who are vaccinated with MCV4 should receive 2 doses at least 8 weeks apart.
- Administer 1 dose of MCV4 to children aged 2 through 10 years who travel to countries with highly endemic or epidemic disease and during outbreaks caused by a vaccine serogroup.
- Administer MCV4 to children at continued risk for meningococcal disease who were previously vaccinated with MCV4 or meningococcal polysaccharide vaccine after 3 years (if first dose administered at age 2 through 6 years) or after 5 years (if first dose administered at age 7 years or older).

4. Influenza vaccine (seasonal).

- For healthy nonpregnant persons aged 7 through 18 years (i.e., those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used.
- Administer 2 doses (separated by at least 4 weeks) to children aged 6 months through 8 years who are receiving seasonal influenza vaccine for the first

time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.

- Children 6 months through 8 years of age who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010-2011 seasonal influenza vaccine. See *MMWR* 2010;59(No. RR-8):33–34.

5. Pneumococcal vaccines.

- A single dose of 13-valent pneumococcal conjugate vaccine (PCV13) may be administered to children aged 6 through 18 years who have functional or anatomic asplenia, HIV infection or other immunocompromising condition, cochlear implant or CSF leak. See *MMWR* 2010;59(No. RR-11).
- The dose of PCV13 should be administered at least 8 weeks after the previous dose of PCV7.
- Administer pneumococcal polysaccharide vaccine at least 8 weeks after the last dose of PCV to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant. A single revaccination should be administered after 5 years to children with functional or anatomic asplenia or an immunocompromising condition.

6. Hepatitis A vaccine (HepA).

- Administer 2 doses at least 6 months apart.
- HepA is recommended for children aged older than 23 months who live in areas where vaccination programs target older children, or who are at increased risk for infection, or for whom immunity against hepatitis A is desired.

7. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those not previously vaccinated. For those with incomplete vaccination, follow the catch-up schedule.
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB is licensed for children aged 11 through 15 years.

8. Inactivated poliovirus vaccine (IPV).

- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.

9. Measles, mumps, and rubella vaccine (MMR).

- The minimum interval between the 2 doses of MMR is 4 weeks.

10. Varicella vaccine.

- For persons aged 7 through 18 years without evidence of immunity (see *MMWR* 2007;56[No. RR-4]), administer 2 doses if not previously vaccinated or the second dose if only 1 dose has been administered.
- For persons aged 7 through 12 years, the recommended minimum interval between doses is 3 months. However, if the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.
- For persons aged 13 years and older, the minimum interval between doses is 4 weeks.

**General Immunization Rules – Combined
(childcare and school)**

May 2011

DTaP: Diphtheria, Tetanus, acellular Pertussis

Required for childcare and for students under 7 years of age attending public, charter, and private schools.

- Recommended at 2, 4, 6, (required at 2, 4 and 6 months of age for childcare) and 15-18 months of age (required at 15 months of age for childcare), booster is administered at 4-6 years of age (required at age 4 for childcare and preschool). Booster needed prior to entry into public, charter, and private schools.
- Minimum age for the first dose is 6 weeks of age.
- There must be 1 month (minimum interval 4 weeks) between doses 1 and 2, and doses 2 and 3.
- The 4th dose can be administered as early as 12 months of age provided 6 months have elapsed since the 3rd dose (*the 4th dose of DTaP does not need to be repeated if administered at least 4 months after the 3rd dose of DTaP and on or after 12 months of age*).
- The 5th dose is not needed if the 4th dose is administered on or after 4 years of age provided 6 months have elapsed since the 3rd dose.
- Licensed for in use in children aged 6 weeks-6 years.

DT: Diphtheria, Tetanus

- **Recommended only for children who cannot receive a pertussis-containing vaccine due to a medical contraindication.**
- Recommended at 2, 4, 6 (required at 2, 4, and 6 months of age for childcare) and 15-18 months of age (required at 15 months of age for childcare), booster is given at 4-6 years of age (required at age 4 for childcare and preschool). Booster needed to enroll in public, charter, and private schools.
- Minimum age for first dose is 6 weeks of age.
- There must be 1 month (minimum interval 4 weeks) between doses 1 and 2, and doses 2 and 3.
- The 4th dose can be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose (*the 4th dose of DT does not need to be repeated if administered at least 4 months after the 3rd dose of DT and the child is 12 months of age*).
- The 5th dose is not needed if the 4th dose is administered on or after 4 years of age provided 6 months have elapsed since the 3rd dose.
- If a child has received all DT's or less than 4 DTaP's or DPT's then he/she would not have pertussis protection and should be excluded during a pertussis outbreak.
- Licensed for use in children aged 6 weeks -6 years.

Td: Tetanus, diphtheria

- A 3 dose series of a combination of tetanus, diphtheria (Td) and tetanus, diphtheria, pertussis (Tdap) containing vaccines are recommended for persons 7 years and older with no record of tetanus, diphtheria and pertussis. The recommended schedule for the series of vaccinations is 0, 1 and 6-12 months (required for daycare and school at the 6 month interval between the 2nd and 3rd dose). Preferably, Tdap should be given as the 1st dose but can be given anytime during the 3 dose series.
- Td is recommended every 10 years for adults through out the lifespan after receiving a single dose of Tdap.
- Td is licensed for use in persons aged 7 years -adult.

DTaP-IPV-HBV (Pediarix®): Diphtheria, Tetanus, acellular Pertussis-Inactive Poliovirus Vaccine-Hepatitis B

- Recommended for use at 2, 4, and 6 months of age.
- Minimum age for the first dose is 6 weeks of age.
- The recommended interval between doses is 6-8 weeks (preferably 8 weeks). However, the Hepatitis B antigen dictates the spacing interval between doses of vaccine to be considered valid. The last dose should be given on or after age 6 months (see Hepatitis B for details).
- May be used when administration of any component of this combination vaccine is indicated for the primary series (doses 1, 2, and 3) and no components are contraindicated.
- Not approved for the 4th dose of IPV or the fourth and fifth dose of DTaP.
- Licensed for use in children aged 6 weeks-6 years.

DTaP-IPV/Hib (Pentacel®): Diphtheria, Tetanus, acellular-Pertussis-Inactive Poliovirus Vaccine/Haemophilus influenzae type b

- Recommended for use at 2, 4, 6, and 15-18 months of age.
- Minimum age for the first dose is 6 weeks of age.
- There must be 1 month (minimum interval 4 weeks between doses 1 and 2, and doses 2 and 3).
- 4th dose can be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose.
- May be used when administration of any component of this combination vaccine is indicated for the primary series (doses 1, 2, 3 and 4) and no components are contraindicated.
- Licensed for use in children aged 6 weeks-4 years.

DTaP-IPV (Kinrix®): Diphtheria, Tetanus, acellular Pertussis/Inactive Poliovirus Vaccine

- Recommended for the 5th dose in the DTaP series and the 4th dose in the IPV series.
- Licensed for use in children aged 4-6 years.

HBV: Hepatitis B Vaccine

Required for childcare and for any student attending public, charter or private school in Nevada

- 3-dose series (4 doses maybe given if combination vaccines have been used).
- Recommended at birth, 2 and 6-18 months of age (required at 2, 4 and 6 months of age for childcare).
- There must be at least 1 month (minimum interval 4 weeks or 28 days) between dose 1 and 2.
- There must be at least 2 months (minimum interval 8 weeks or 56 days) between dose 2 and 3.
- There must be at least 4 months (minimum interval 16 weeks or 112 days) between dose 1 and 3.
- Dose 3 should be given on or after age 6 months (minimum acceptable age for 3rd dose is 24 weeks old).
- Minimum age for the first dose is day of birth.
- Licensed for use birth through adult.

Hib: Haemophilus Influenzae Type b (Act Hib® or PedvaxHIB®)

Required for childcare

- **ActHib®** is a 4 dose series recommended at 2,4,and 6, months of age (required at 2, 4, and 6 months of age for childcare) and a booster dose at 12-15 months of age (required at 15 months of age for childcare).
- **PedvaxHIB®** 3 dose series recommended a 2 and 4 months of age (required at 2 and 4 months of age for childcare) and a booster dose at 12-15 months of age (required at 15 months of age for childcare).
- Minimum age for the first dose is 6 weeks of age.
- Minimum age for the last dose in the series is 12 months of age.
- For **ActHib®** there must be at least 1 month (minimum interval 4 weeks) between the first 3 doses and at least 2 months (minimum interval 8 weeks) between the 3rd and 4th dose.
- For **PedvaxHIB®** there must be at least 1 month (minimum interval 4 weeks) between the first 2 doses and 2 months (minimum interval 8 weeks) between the 2nd and 3rd dose.
- Children receiving their first dose of either type of Hib vaccine age 7 months or older require fewer doses
- ***ActHib recommendations for children receiving their first dose of vaccine aged 7 months and older***
 - Unvaccinated children aged 7-11 months should receive two doses of vaccine, 2 months apart (minimum interval 8 weeks), followed by a booster dose at age 12-15 months, at least 2 months (minimum interval 8 weeks) after the last vaccination .
 - Unvaccinated children aged 12-14 months should receive two doses of vaccine, at least 2 months apart (minimum interval 8 weeks).
 - Any previously unvaccinated child aged 15-59 months should receive a single dose of vaccine.
- ***PedvaxHIB recommendations for children receiving their first dose of vaccine aged 7 months and older***
 - Unvaccinated children age 2-11 months should receive 2 doses of vaccine 2 months apart followed by a booster dose at aged 12-15 months at least 2 months after the last dose.
 - Unvaccinated children aged 12-14 months should receive 1 dose followed by a booster dose at least 2 months later.
 - Any previously unvaccinated child age 15 -59 months should receive a single dose of vaccine.
- Children who have received at least 1 dose of either vaccine on or after age 15 months do not need further doses
- Not routinely recommended after age 5 unless the person is at high risk for Hib disease.

IPV: Inactive Poliovirus Vaccine

Required for childcare and for students attending public, charter, and private schools.

- Recommended at 2, 4, and 6-18 months (required at 2, 4 and 6 months of age for childcare), and a booster is given 4-6 years of age (required at age 4 for childcare). Booster required for enrollment into public, charter, and private schools.
- Minimum age for first dose is 6 weeks.
- A 4th dose of polio is not required if the 3rd dose was given on or after age 4 and all 3 doses were the **same vaccine type** (all IPV or all OPV) and at least **6 months** between the 2nd and 3rd dose.
- There must be 1 month (minimum interval 4 weeks) between dose 1 and 2, and dose 2 and 3; there must be **6 months** between dose 3 and 4.
- The last dose **must be** administered **on or after age 4** regardless of the number of previous doses.

- Any combination of four doses of IPV or OPV constitutes a complete series as long as minimum intervals are met and the last dose was administered on or after age 4.
- Licensed for use 6 weeks of age through adult. Not recommended for adults 18 years or older who reside in the US unless they are at risk for exposure and/or do not have a record of a primary series.

**Pneumococcal Conjugate Vaccine:
PCV7 or PCV13 (Prevnar®)**

Required for childcare and preschool effective 7-1-08.

- PCV7 has replaced PCV13.
- Recommended at 2, 4, and 6 months of age (required at 2, 4, and 6 months of age for childcare) and a booster dose at 12-15 months of age (required at 15 months of age for childcare).
- Minimum age for the first dose is 6 weeks.
- Children who have started the series with PCV7 should complete the series with PCV13.
- Children under 5 years of age who have completed the PCV-7 series are recommended to receive a supplemental dose of PCV13 (currently not a childcare requirement).
- **Unvaccinated children 7 months of age and older do not require a full series of 4 doses:**
 - o Unvaccinated children aged 7-11 months need 2 doses, at least 1 month (minimum interval 4 weeks) apart; then 1 booster dose at aged 12-15 months.
 - o Unvaccinated children aged 12-23 months need 2 doses, 2 months (minimum interval 8 weeks) apart.
 - o Unvaccinated children aged 2-4 years need only 1 dose.
- PCV13 licensed for use 6 weeks of age through age 5 years. Not routinely recommended after age 4, except for persons through 18 years of age who are at high risk for invasive pneumococcal disease.

Rotavirus Vaccine:

(RV5 “RotaTeq®” or RV1 “Rotarix®”):

Currently not required for childcare or school.

- RotaTeq®: 3 doses recommended at 2, 4, and 6 months of age.
- Rotarix®: 2 doses recommended at 2 and 4 months of age.
- First dose must be administered between 6 weeks 0 days weeks and 14 weeks 6 days; at least 1 month (minimum interval 4 weeks) between doses.
- All doses must be administered by age 8 months and 0 days.
- Whenever possible, the same RV vaccine product should be used for all doses in the series.
- When using a combination of RV vaccine products 3 doses are required.

HAV: Hepatitis A Vaccine

Required for childcare and for any student attending public, charter or private school.

- 2 dose series.
- Recommended at 12-23 months of age (required at 15 months of age for childcare) and again 6 to 12 months after the first dose (minimum interval 6 calendar months between dose 1 and 2). Required at age 2 years for childcare. Child may be conditionally enrolled in school until 2nd dose is administered 6 months after the 1st dose.
- Minimum age for the first dose is 12 months of age.
- Licensed for use 12 months of age through adult.

MMR: Measles, Mumps, Rubella

Required for childcare and for students attending public, charter or private schools, and college.

- 2 dose series.
- Recommended at 12-15 months of age (required at 15 months of age for childcare) and again at 4-6 years of age (required at 4 years of age for childcare). Two doses required for enrollment into public, charter, private schools, and college.
- A second dose of MMR is acceptable after 13 months of age providing there is at least 1 month (minimum interval 4 weeks) between doses, but not recommended.
- If a child has had a “measles only” vaccine on or after 1 year of age, the child still needs 2 doses of MMR.
- Minimum age for the first dose is 12 months of age.
- Licensed for use 12 months of age through adult (can be given to infants under 12 months of age if at risk to exposure of measles but is not valid and must be repeated if at least 12 months of age and at least 4 weeks from the first dose).

MMRV: Measles, Mumps, Rubella, Varicella

- 2 dose series.
- Licensed for use at 12-15 months and again at 4-6 years of age. Doses must be separated by 3 months. CDC cautions against the use of MMRV in infants due to higher rates of febrile seizures. Careful family history must be taken and parents counseled for use as first dose.
- Minimum age for the first dose is age 12 months.
- Licensed for use in children age 12 months through 12 years.

VZV: Varicella (Chickenpox):

Required for childcare and for students entering public, charter or private school who have not had chickenpox disease (parent’s statement sufficient proof of prior disease).

- 2 dose series.
- Recommended at 12-15 months of age (required at 15 months for childcare) and again at 4-6 years of age (required at 4 years of age for childcare). Two doses required for enrollment into public, charter, and private schools.
- Minimum age for the first dose is 12 months of age.
- There must be at least 3 months between doses 1 and 2 for children 12 years or younger. However, the 2nd dose does not need to be repeated if at least 1 month, minimum interval 4 weeks between doses.
- There must be 1 month (minimum interval 4 weeks or 28 days) between doses 1 and 2 for children and adults age 13 and older.
- Licensed for use age 12 months through adult.

Tdap: Tetanus, Diphtheria, acellular Pertussis

Tdap required for 7th grade entry and for all new students 8th through 12th grades entering NV schools who have not previously received a dose of Tdap starting with the 2011-12 school year.

- Licensed as a once in a lifetime booster dose of tetanus, diphtheria, pertussis containing vaccine.
- A single dose is recommended at 11-12 years and for any adolescent or adult who has not been previously vaccinated.
- Tdap can be given regardless of the interval since the last Td was given.
- Minimum age 7 years.

HPV: Human Papillomavirus Vaccine HPV2 “Cervarix®” and HPV4 “Gardasil®”
HPV2 Cervarix® FEMALES ONLY

Currently not required for students attending public, charter or private school in Nevada.

- Recommended for all females at 11-12 years of age.
- Recommended for all unvaccinated females 13-26 years of age.
- 3 dose series.
- Recommended schedule 0, 4 and 6 months.
- There must be at least 1 month (minimum interval 4 weeks) between dose 1 and 2.
- There must be at least 3 months (minimum interval 12 weeks) between dose 2 and 3.
- There must be at least 6 months (minimum interval 24 weeks) between dose 1 and 3.
- Cervarix® licensed for use in females age 10 through 25 years of age (ACIP’s blended schedule allows use 9 through 26 years of age).
- Whenever possible, the same HPV vaccine product should be used for all doses in the series.

HPV4 Gardasil® FEMALES and MALES

Currently not required for students attending public, charter or private school in Nevada.

- Recommended for all females and males 11-12 years of age (permissive use allowed for males by VFC Program).
- Recommended for all unvaccinated females and males 13-26 years of age.
- 3 dose series.
- Recommended schedule 0, 2 and 6 months.
- There must be at least 1 month (minimum interval 4 weeks) between dose 1 and 2.
- There must be at least 3 months (minimum interval 12 weeks) between dose 2 and 3.
- There must be at least 6 months (minimum interval 24 weeks) between dose 1 and 3.
- Gardasil® is licensed for use in females and males age 9 through 26 year of age.

Meningococcal Conjugate Vaccine
MCV4 “Menactra®” or “Menveo®”

Currently not required for school entry but is required for all college freshmen less than 23 years of age living in dormitory setting in Nevada.

- Recommended at 11-12 years of age.
- A booster dose is recommended at 16 years of age.
- Recommended for all unvaccinated children 13-18 years of age
- For adolescents who received the first dose at 13-15 years of age, a one-time booster dose should be administered preferably at 16-18 years of age.
- Adolescents who receive their first dose of vaccine on or after age 16 years of age do not need a booster dose.
- Persons 21 years or younger are recommended to have a dose not more than 5 years before college enrollment.
- Menactra® licensed for persons 2 through 55 years age.
- Menveo® licensed for persons 2 through 55 years of age.
- Whenever possible the same type of meningococcal vaccine should be used for all doses of the vaccination series.

Helpful Hints:

- ACIP recommends that vaccine doses administered up to 4 days before the minimum interval or age can be counted as valid with the exception of rabies vaccine. The 4-day "grace period" should not be used when scheduling future vaccination visits, and should not be applied to the 28-day interval between live parenteral vaccines such as MMR and varicella.
- A "minimum interval" is shorter than the recommended interval, and is the shortest time between two doses of a vaccine series in which an adequate response to the second dose can be expected. The concern is that a dose given too soon after the previous dose may reduce the response. Customarily, if the dosing interval is 4 months or more, it is common to use calendar months (e.g., 6 months from October 1 is April 1). If the interval is less than 4 months, it is common to convert months into days or weeks (e.g., 1 month = 4 weeks = 28 days).
- It is not necessary to start over a vaccination series if more than the recommended interval between doses of vaccine has occurred.
- No upper limit has been established regarding the number of vaccines (IM or SC injections) that can be administered in one visit. The ACIP strongly recommends that you do not defer any recommended vaccines. This would be a missed opportunity.

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age

PERSONS AGED 4 MONTHS THROUGH 6 YEARS					
Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B ¹	Birth	4 weeks	8 weeks (and at least 16 weeks after first dose)		
Rotavirus ²	6 wks	4 weeks	4 weeks ⁵		
Diphtheria, Tetanus, Pertussis ³	6 wks	4 weeks	4 weeks	6 months	6 months ³
<i>Haemophilus influenzae</i> type b ⁴	6 wks	4 weeks if first dose administered at younger than age 12 months 8 weeks (as final dose) if first dose administered at age 12–14 months No further doses needed if first dose administered at age 15 months or older	4 weeks ⁴ if current age is younger than 12 months 8 weeks (as final dose) ⁴ if current age is 12 months or older and first dose administered at younger than age 12 months and second dose administered at younger than 15 months No further doses needed if previous dose administered at age 15 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months through 59 months who received 3 doses before age 12 months	
Pneumococcal ⁵	6 wks	4 weeks if first dose administered at younger than age 12 months 8 weeks (as final dose for healthy children) if first dose administered at age 12 months or older or current age 24 through 59 months No further doses needed for healthy children if first dose administered at age 24 months or older	4 weeks if current age is younger than 12 months 8 weeks (as final dose for healthy children) if current age is 12 months or older No further doses needed for healthy children if previous dose administered at age 24 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months through 59 months who received 3 doses before age 12 months or for children at high risk who received 3 doses at any age	
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks	6 months ⁵	
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			
Varicella ⁸	12 mos	3 months			
Hepatitis A ⁹	12 mos	6 months			
PERSONS AGED 7 THROUGH 18 YEARS					
Tetanus, Diphtheria/ Tetanus, Diphtheria, Pertussis ¹⁰	7 yrs ¹⁰	4 weeks	4 weeks if first dose administered at younger than age 12 months 6 months if first dose administered at 12 months or older	6 months if first dose administered at younger than age 12 months	
Human Papillomavirus ¹¹	9 yrs	Routine dosing intervals are recommended (females) ¹¹			
Hepatitis A ⁹	12 mos	6 months			
Hepatitis B ¹	Birth	4 weeks	8 weeks (and at least 16 weeks after first dose)		
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks ⁵	6 months ⁵	
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			
Varicella ⁸	12 mos	3 months if person is younger than age 13 years 4 weeks if person is aged 13 years or older			

1. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those not previously vaccinated.
- The minimum age for the third dose of HepB is 24 weeks.
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB is licensed for children aged 11 through 15 years.

2. Rotavirus vaccine (RV).

- The maximum age for the first dose is 14 weeks 6 days. Vaccination should not be initiated for infants aged 15 weeks 0 days or older.
- The maximum age for the final dose in the series is 8 months 0 days.
- If Rotarix was administered for the first and second doses, a third dose is not indicated.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).

- The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.

4. *Haemophilus influenzae* type b conjugate vaccine (Hib).

- 1 dose of Hib vaccine should be considered for unvaccinated persons aged 5 years or older who have sickle cell disease, leukemia, or HIV infection, or who have had a splenectomy.
- If the first 2 doses were PRP-OMP (PedvaxHIB or Comvax), and administered at age 11 months or younger, the third (and final) dose should be administered at age 12 through 15 months and at least 8 weeks after the second dose.
- If the first dose was administered at age 7 through 11 months, administer the second dose at least 4 weeks later and a final dose at age 12 through 15 months.

5. Pneumococcal vaccine.

- Administer 1 dose of 13-valent pneumococcal conjugate vaccine (PCV13) to all healthy children aged 24 through 59 months with any incomplete PCV schedule (PCV7 or PCV13).
- For children aged 24 through 71 months with underlying medical conditions, administer 1 dose of PCV13 if 3 doses of PCV were received previously or administer 2 doses of PCV13 at least 8 weeks apart if fewer than 3 doses of PCV were received previously.
- A single dose of PCV13 is recommended for certain children with underlying medical conditions through 18 years of age. See age-specific schedules for details.
- Administer pneumococcal polysaccharide vaccine (PPSV) to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant, at least 8 weeks after the last dose of PCV. A single revaccination should be administered after 5 years to children with functional or anatomic asplenia or an immunocompromising condition. See *MMWR* 2010;59(No. RR-11).

6. Inactivated poliovirus vaccine (IPV).

- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.
- A fourth dose is not necessary if the third dose was administered at age 4 years or older and at least 6 months following the previous dose.
- In the first 6 months of life, minimum age and minimum intervals are only recommended if the person is at risk for imminent exposure to circulating poliovirus (i.e., travel to a polio-endemic region or during an outbreak).

7. Measles, mumps, and rubella vaccine (MMR).

- Administer the second dose routinely at age 4 through 6 years. The minimum interval between the 2 doses of MMR is 4 weeks.

8. Varicella vaccine.

- Administer the second dose routinely at age 4 through 6 years.
- If the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

9. Hepatitis A vaccine (HepA).

- HepA is recommended for children aged older than age 23 months who live in areas where vaccination programs target older children, or who are at increased risk for infection, or for whom immunity against hepatitis A is desired.

10. Tetanus and diphtheria toxoids (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

- Doses of DTaP are counted as part of the Td/Tdap series.
- Tdap should be substituted for a single dose of Td in the catch-up series for children aged 7 through 10 years or as a booster for children aged 11 through 18 years; use Td for other doses.

11. Human papillomavirus vaccine (HPV).

- Administer the series to females at age 13 through 18 years if not previously vaccinated or have not completed the vaccine series.
- Quadrivalent HPV vaccine (HPV4) may be administered in a 3-dose series to males aged 9 through 18 years to reduce their likelihood of genital warts.
- Use recommended routine dosing intervals for series catch-up (i.e., the second and third doses should be administered at 1 to 2 and 6 months after the first dose). The minimum interval between the first and second doses is 4 weeks. The minimum interval between the second and third doses is 12 weeks, and the third dose should be administered at least 24 weeks after the first dose.

Information about reporting reactions after immunization is available online at <http://www.vaers.hhs.gov> or by telephone, 800-822-7967. Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for immunization, is available from the National Center for Immunization and Respiratory Diseases at <http://www.cdc.gov/vaccines> or telephone, 800-CDC-INFO (800-232-4636).

2011 ACIP Recommended Ages and Intervals Between Vaccine Doses for Childhood Immunizations

Vaccine & Dose Number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid if given early using 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using 4 day grace period & other exceptions to the rule. <i>Not to be used when scheduling future vaccination visits!</i>
¹ Hepatitis B (Hep B)-1	Birth	Birth	-----	1-2 months	4 weeks (28 days)	24 days
Hep B-2	1-2 months	4 weeks (28 days)	24 days	2-17 months	8 weeks (56 days)	52 days
Hep B-3	6-18 months	24 weeks (168 days)	164 days	-----	-----	-----
² Diphtheria-Tetanus-acellular Pertussis (DTaP)-1 or *Diphtheria-Tetanus (DT)-1 <i>Requires medical contraindication to pertussis vaccine</i>	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days
DTaP-2 or DT-2	4 months	10 weeks (70 days)	66 days	2 months (8 weeks)	4 weeks (28 days)	24 days
DTaP-3 or DT-3	6 months	14 weeks (98 days)	94 days	6-12 calendar months	6 calendar months	<i>4 days before 4 calendar months after DTaP-3 (see footnote)</i>

Vaccine & dose number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid when using the 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using the 4 day grace period & other exceptions to the rule. <u>Not to be used when scheduling future vaccination visits!</u>
DTaP-4 or DT-4	15-18 months	12 months (365 days)	361 days	3 years	6 months *If 4 th dose given at age 3½ years or older	4 days before 6 calendar months *If 4 th dose given at age 3½ years or older
DTaP-5 or DT-5	4-6 years	4 years	4 days before 4 years of age	-----	-----	-----
³Inactivated Poliovirus (IPV)-1	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days
IPV-2	4 months	10 weeks (70 days)	66 days	2 -14 months	4 weeks (28 days)	24 days
IPV-3	6-18 months	14 weeks (98 days)	94 days	3-5 years	6 calendar months	4 days before 6 calendar months
IPV-4	4-6 years	4 years (regardless of # previous doses)	4 days before age 4 years	-----	-----	-----
⁴Pneumococcal Conjugate (PCV)-1	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days
PCV-2	4 months	10 weeks (70 days)	66 days	2 months (8 weeks)	4 weeks (28 days)	24 days
PCV-3	6 months	14 weeks (98 days)	94 days	6 months (24 weeks)	8 weeks (56 days)	52 days

Vaccine & dose number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid when using the 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using the 4 day grace period & other exceptions to the rule. <u>Not to be used when scheduling future vaccination visits!</u>
PCV-4	12-15 months	12 months	4 days before age 12 months	<i>Supplemental single dose of PCV-13 for children less than age 5 years if they have completed the PCV series with only PCV-7</i>	-----	-----
⁵ Haemophilus influenzae type b (Hib)-1 <i>ActHib (4 dose series)</i>	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days
Hib-2	4 months	10 weeks (70 days)	66 days	2 months (8 weeks)	4 weeks (28 days)	24 days
Hib-3	6 months	14 weeks (98 days)	94 days	6-9 months (24 weeks)	8 weeks (56 days) *if 3 rd dose given at 10 months or older	52 days
Hib-4	12-15 months	12 months	4 days before age 12 months	-----	-----	-----
⁶ Haemophilus influenzae type b (Hib)-1 <i>PedvaxHib (3 dose series)</i>	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days

Vaccine & dose number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid when using the 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using the 4 day grace period & other exceptions to the rule. <u>Not to be used when scheduling future vaccination visits!</u>
Hib-2	4 months	10 weeks (70 days)	66 days	8-11 months	2 months (8 weeks) *if 2 nd dose given at 10 months or older	52 days
Hib-3	12-15 months	12 months	4 days before age 12 months	-----	-----	-----
⁷ Rotavirus (RV5)-1 <i>RotaTeq</i> (3 dose series)	2 months	6 week (42 days)	38 days	2 months (8weeks)	4 weeks (28 days)	24 days
RV5-2	4 months	10 weeks (70 days)	66 days	2 months (8 weeks)	4 weeks (28 days)	24 days
RV5-3	6 months	14 weeks (98 days)	94 days	-----	-----	-----
⁸ Rotavirus (RV1)-1 <i>Rotarix</i> (2 dose series)	2 months	6 weeks (42 days)	38 days	2 months (8 weeks)	4 weeks (28 days)	24 days
RV1-2	4 months	10 weeks (70 days)	66 days	-----	-----	-----
⁹ Measles-Mumps -Rubella (MMR)-1	12-15 months	12 months	4 days before age 12 months	3-5 years	4 weeks (28 days)	<i>Unable to use 4 day grace period</i>
MMR-2	4-6 year	13 months	4 days before age 13 months	-----	-----	-----

Vaccine & dose number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid when using the 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using the 4 day grace period & other exceptions to the rule. <u>Not to be used when scheduling future vaccination visits!</u>
¹⁰ Varicella (VZV)-1	12-15 months	12 months	4 days before age 12 months	3-5 years	3 months (12 weeks) for children 1-12 years; 4 weeks for children ≥ 13 years	Valid if given 28 days between VZV-1 & VZV-2 for all children 1-18 years (see footnote)
VZV-2	4-6 years	15 months	4 days before age 15 months	-----	-----	-----
Hepatitis A (Hep A)-1	12-23 months	12 months	4 days before age 12 months	6-18 months	6 calendar months	4 days before 6 calendar months
Hep A-2	≥ 18 months	18 months	4 days before age 18 calendar months	-----	-----	-----
¹¹ Tetanus, diphtheria, acellular pertussis (Tdap)	11-12 years	7 years	NA	-----	-----	-----
¹² Tetanus, diphtheria (Td)	11-12 years (Tdap is preferred) only use Td if there is a contraindication to pertussis vaccine)	7 years	NA	10 years	5 years	-----

Vaccine & dose number	Recommended age for this dose	Minimum age for this dose	Minimum age for dose to be valid when using the 4 day grace period	Recommended interval to next dose	Minimum Interval to next dose	Minimum interval for dose to be valid if given early using the 4 day grace period & other exceptions to the rule. <u><i>Not to be used when scheduling future vaccination visits!</i></u>
¹³ Meningococcal (MCV4)-1	11-12 years	2 years	4 days before age 2 years	5 years	2 months (8 weeks)	-----
MCV4-2	16 years	11 years + 8 weeks	11 years + 52 days	High risk (see footnote)	-----	-----
¹⁴ Human Papillomavirus HPV4 and HPV2 (HPV)-1	11-12 years	9 years	4 days before age 9 years	2 months (8 weeks)	1 month (4 weeks)	24 days
HPV-2	11-12 years (+2 months)	9 years (+4 weeks)	9 years (+ 24 days)	4 months (16 weeks)	3 months (12 weeks)	80 days
HPV-3	11-12 years (+6 months)	9 years (+6 months)	9 years (+24 weeks)	-----	-----	-----

¹ Hepatitis B is a 3 dose series. However, a total of 4 doses can be administered with the documentation of birth dose and the use of combination vaccines. The minimum interval between Hep B-1 and Hep B-2 is 4 weeks, the minimum interval between Hep-2 and Hep-3 is 8 weeks and the minimum interval between Hep B-1 and Hep B-3 is 16 weeks. The last dose of Hepatitis B must be given no sooner than 24 weeks of age. When using the combination vaccines Pediarix (DTaP-Hep-IPV) and Pentacel (DTaP-IPV/Hib), the Hepatitis B component dictates the minimum interval and age for the vaccine to be administered to be considered valid

² DTaP-5 is not required if DTaP-4 was given on or after 4 years of age and if there has been 6 months between DTaP-3 and DTaP-4. However, if there has been at least 4 months between DTaP-3 and DTaP-4 the dose is valid and does not need to be repeated. If Tdap was given in error as either the 1st, 2nd or 3rd dose in the DTaP series, the dose is not valid and should be repeated with DTaP. If Tdap was given in error as either the 4th or 5th dose it is considered valid and does not need to be repeated. Children receiving less than 4 doses of DTaP do not have pertussis protection.

* DT is recommended only for children who cannot receive a pertussis-containing vaccine due to a medical contraindication. DT-5 is not required if DT-4 was given on or after 4 years of age and if there has been 6 months between DT-3 and DT-4. However, if there has been at least 4 months between DT-3 and DT-4 the dose is valid and does not need to be repeated. Children receiving only DT do not have pertussis protection.

³ IPV-4 not required if IPV-3 was given on or after age 4 years and all 3 doses were the same vaccine type (all IPV or OPV) and at least 6 months between IPV-2 and IPV-3. The last dose must be received on or after age 4 years regardless of the number of previous doses.

⁴ PCV13 has replaced PCV7. Children who have started the series with PCV7 should complete the series with PCV13. Children under age 5 years who have completed the PCV7 series are recommended to receive a supplemental dose of PCV13 (currently not required for childcare). Unvaccinated children age 7 months and older do not require a full series of 4 doses. Unvaccinated children age 7-11 months need 2 doses at least 1 month (minimum interval 4 weeks) apart; then 1 booster dose at age 12-15 months. Unvaccinated children age 12-23 months need 2 doses, 2 months (minimum interval 8 weeks) apart. Unvaccinated children age 2-4 years need only 1 dose.

⁵ Unvaccinated children aged 7 months and older do not require a full series of 4 doses of Hib (ActHib) vaccine. Unvaccinated children aged 7-11 months should receive 2 doses of Hib vaccine 2 months apart, followed by a booster dose at aged 12-15 months, administered at least 2 months after the last dose. Unvaccinated children aged 12-14 months should receive 1 dose of Hib vaccine, followed by a booster dose at least 2 months later. Any previously unvaccinated child aged 15-59 months should receive a single dose of Hib vaccine. Children who have received at least 1 dose on or after age 15 months do not need further doses.

⁶ If a combination of Hib vaccines are used, 4 doses are required.

Unvaccinated children age 2-11 months should receive 2 doses of Hib (PedvaxHIB) vaccine 2 months apart followed by a booster dose at aged 12-15 months, at least 2 months after the last dose. Unvaccinated children aged 12-14 months should receive 1 dose of Hib vaccine followed by a booster dose at least 2 months later. Any previously unvaccinated child age 15 -59 months should receive a single dose of Hib vaccine. Children who have received at least 1 dose on or after age 15 months do not need further doses.

⁷ The first dose of RV5 must be administered between 6 weeks 0 days and 14 weeks 6 days. The vaccine series should not be started on or after age 15 weeks 0 days. All doses must be administered by age 8 months 0 days regardless of the doses received before that age.

⁸ The first dose of RV1 must be administered between 6 weeks 0 days and 14 weeks 6 days. The vaccine series should not be started on or after age 15 weeks 0 days. All doses must be administered by age 8 months 0 days regardless of the doses received before that age. When using combination of RV vaccine 3 doses are required.

⁹ MMR can be given to children aged 6-11 months if they travel or live abroad. However, the dose is not considered valid and will need to be repeated at age 1 year and as long as there has been 28 days between doses. Unable to use the 4 day grace period when using the minimum interval (28 days) between doses.

Unable to use the 4 day grace period when using the minimum interval (28 days) between doses.

¹⁰ The recommended interval between VZV-1 and VZV-2 for children 1-12 years of age is 3 months. However, if the second dose is administered at least 28 following the first dose, the second dose is valid and does not need to be repeated. Unable to use the 4 day grace period when using the minimum interval (28 days) between doses.

¹¹ A single dose of Tdap is also recommended for persons aged 13 years- adult who have not been previously vaccinated. It can be given regardless of the interval since the last tetanus containing vaccine was administered. It can also be administered as a single dose for children aged

7-10 years who have not completed the DTaP series. Subsequent doses should be given as Td. DTaP or (DT only use if pertussis vaccine is contraindicated) are the recommended vaccines for children 6 weeks -6 years of age. If DTaP was given in error instead of Tdap the dose is valid and does not need to be repeated with Tdap. Due to FDA licensing, children under the age of 6 years should not be vaccinated with Tdap. Instead they should be vaccinated with DTap.

¹² After a single dose of Tdap, Td is recommended every 10 years through out the lifespan. DTaP or (DT only use if pertussis vaccine is contraindicated) are the recommended vaccines for children 6 weeks-6 years of age. Due to FDA licensing, children under the age of 6 years should not be vaccinated with Tdap. Instead they should be vaccinated with DTap.

¹³ MCV4 is also recommended for all unvaccinated children aged 13-18 years. For adolescents who received the first dose at aged 13-15 years, a one-time booster dose is recommended preferably at aged 16-18 years. Persons who received the first dose of vaccine on or after age 16 years do not need a booster dose. For college freshmen, who will be living in the dormitories, if not vaccinated, should receive a single dose of MCV4 vaccine.

Persons who remain at high risk for meningococcal disease, revaccination is recommended every 5 years with meningococcal vaccine (see detailed ACIP recommendations).

¹⁴ HPV is recommended for all unvaccinated females and males aged 13-26 years of age. HPV4 is licensed for males and females. HPV2 is only licensed for females.

Helpful Hints:

- ACIP recommends that vaccine doses administered up to 4 days before the minimum interval or age can be counted as valid with the exception of rabies vaccine. The 4-day "grace period" should not be used when scheduling future vaccination visits, and should not be applied to the 28-day interval between live parenteral vaccines such as MMR and varicella.
- A "minimum interval" is shorter than the recommended interval, and is the shortest time between two doses of a vaccine series in which an adequate response to the second dose can be expected. The concern is that a dose given too soon after the previous dose may reduce the response. Customarily, if the dosing interval is 4 months or more, it is common to use calendar months (e.g., 6 months from October 1 is April 1). If the interval is less than 4 months, it is common to convert months into days or weeks (e.g., 1 month = 4 weeks = 28 days).
- Use of combination vaccines is preferred to separate injections of their equivalent component vaccine. When administering combination vaccines, the minimum age for administration is the oldest age for any of the individual components: the minimum interval between doses is equal to the greatest interval of any of the individual components.
- It is not necessary to start over a vaccination series if more than the recommended interval between doses of vaccine has occurred (see ACIP recommendations for exceptions to travel immunizations).
- No upper limit has been established regarding the number of vaccines (IM or SC injections) that can be administered in one visit. The ACIP strongly recommends that you do not defer any recommended vaccines. This would be a missed opportunity.
- Childcare and school immunization requirements may dictate the use of the minimum age of the ACIP recommendation.

PUBLIC SCHOOLS

NRS 392.435 Immunization of pupils: Certificate prerequisite to enrollment; conditional enrollment; effect of failure to immunize; report to Health Division; inclusion of certificate in pupil's record. [Effective through December 31, 2010.]

1. Unless excused because of religious belief or medical condition, a child may not be enrolled in a public school within this State unless the child's parents or guardian submit to the board of trustees of the school district in which the child resides or the governing body of the charter school in which the child has been accepted for enrollment a certificate stating that the child has been immunized and has received proper boosters for that immunization or is complying with the schedules established by regulation pursuant to [NRS 439.550](#) for the following diseases:

- (a) Diphtheria;
- (b) Tetanus;
- (c) Pertussis if the child is under 6 years of age;
- (d) Poliomyelitis;
- (e) Rubella;
- (f) Rubeola; and
- (g) Such other diseases as the local board of health or the State Board of Health may determine.

2. The certificate must show that the required vaccines and boosters were given and must bear the signature of a licensed physician or the physician's designee or a registered nurse or the nurse's designee, attesting that the certificate accurately reflects the child's record of immunization.

3. If the requirements of subsection 1 can be met with one visit to a physician or clinic, procedures for conditional enrollment do not apply.

4. A child may enter school conditionally if the parent or guardian submits a certificate from a physician or local health officer that the child is receiving the required immunizations. If a certificate from the physician or local health officer showing that the child has been fully immunized is not submitted to the appropriate school officers within 90 school days, or its equivalent in a school district operating under an alternative schedule authorized pursuant to [NRS 388.090](#), after the child was conditionally admitted, the child must be excluded from school and may not be readmitted until the requirements for immunization have been met. A child who is excluded from school pursuant to this section is a neglected child for the purposes of [NRS 432.0999](#) to [432.130](#), inclusive, and [chapter 432B](#) of NRS.

5. Before December 31 of each year, each school district and the governing body of each charter school shall report to the Health Division of the Department of Health and Human Services, on a form furnished by the Division, the exact number of pupils who have completed the immunizations required by this section.

6. The certificate of immunization must be included in the pupil's academic or cumulative record and transferred as part of that record upon request.

(Added to NRS by 1971, 1040; A 1973, 267; 1975, 1324; 1979, 314; 1985, 1400; 1987, 1334; 1995, 807; 1997, 1876; [2003, 3218](#))

NRS 392.437 Immunization of pupils: Exemption if prohibited by religious belief. A public school shall not refuse to enroll a child as a pupil because the child has not been immunized pursuant to [NRS 392.435](#) if the parents or guardian of the child has submitted to the board of trustees of the school district or the governing body of a charter school in which the child has been accepted for enrollment a written statement indicating that their religious belief prohibits immunization of such child or ward.

(Added to NRS by 1971, 1040; A 1997, 1876)

NRS 392.439 Immunization of pupils: Exemption if prevented by medical condition. If the medical condition of a child will not permit the child to be immunized to the extent required by [NRS 392.435](#) and a written statement of this fact is signed by a licensed physician and by the parents or guardian of the child, the board of trustees of the school district or governing body of the charter school in which the child has been accepted for enrollment shall exempt the child from all or part of the provisions of [NRS 392.435](#), as the case may be, for enrollment purposes.

(Added to NRS by 1971, 1040; A 1997, 1877)

NRS 392.443 Immunization of pupils: Additional requirements imposed after enrollment; additional certificate required. If, after a child has been enrolled in a public school and before registration for any subsequent school year additional immunization requirements are provided by law, the child's parents or guardian shall submit an additional certificate or certificates to the board of trustees or the governing body of the charter school in which the child is enrolled stating that the child has met the new immunization requirements.

(Added to NRS by 1971, 1041; A 1997, 1877)

NRS 392.446 Immunization of pupils: Protection of child exempt from immunization if dangerous disease exists in school. Whenever the State Board of Health or a local board of health determines that there is a dangerous contagious disease in a public school attended by a child for whom exemption from immunization is claimed pursuant to the provisions of [NRS 392.437](#) or [392.439](#), the board of trustees of the school district or the governing body of the charter school in which the child is enrolled shall require either:

1. That the child be immunized; or
2. That the child remain outside the school environment and the local health officer be notified.

(Added to NRS by 1979, 314; A 1997, 1877)

NRS 392.448 Immunization of pupils: Penalty for refusal to remove child from school when required by law. Any parent or guardian who refuses to remove his or her child from the public school in which the child is enrolled when retention in school is prohibited under the provisions of [NRS 392.435](#), [392.443](#) or [392.446](#) is guilty of a misdemeanor.

(Added to NRS by 1979, 314)

NAC 392.105 Mumps, hepatitis A, hepatitis B, varicella and Bordetella pertussis. ([NRS 392.435](#), [439.200](#))

1. The State Board of Health hereby declares the diseases of:

- (a) Mumps;
- (b) Hepatitis A;
- (c) Hepatitis B;
- (d) Varicella; and
- (e) Bordetella pertussis if a child is 6 years of age or older,

to be communicable diseases.

2. Unless excused because of religious belief or medical condition, a child may not be enrolled in a public school in this State unless he has been immunized against the mumps.

3. Except as otherwise provided in subsection 5, unless excused because of religious belief or medical condition, a child may not be enrolled in a public school in this State:

- (a) After June 30, 2002, unless he has been immunized against hepatitis A and hepatitis B; and
- (b) After June 30, 2003, unless he has been immunized against varicella.

4. Unless excused because of religious belief or medical condition, a child may not be enrolled in grade 7 in a public school in this State after June 30, 2008, unless the child has been immunized against Bordetella pertussis. To satisfy the requirements of this subsection, a child must receive at least one dose of a vaccine against Bordetella pertussis after he obtained 10 years of age.

5. The provisions of:

(a) Paragraph (a) of subsection 3 do not apply to a child who is enrolled in a public school in this State before July 1, 2002; and

(b) Paragraph (b) of subsection 3 do not apply to a child who is enrolled in a public school in this State before July 1, 2003.

(Added to NAC by Bd. of Health, eff. 6-30-88; A by R075-01, 10-23-2001; R099-07, 10-31-2007)

PRIVATE SCHOOLS

NRS 394.192 Immunization of pupils: Certificate prerequisite to enrollment; conditional enrollment; effect of failure to immunize; report to Health Division; inclusion of certificate in pupil's record.

1. Unless excused because of religious belief or medical condition, a child may not be enrolled in a private school within this State unless the child's parents or guardian submit to the governing body of the private school a certificate stating that the child has been immunized and has received proper boosters for that immunization or is complying with the schedules established by regulation pursuant to [NRS 439.550](#) for the following diseases:

- (a) Diphtheria;
- (b) Tetanus;
- (c) Pertussis if the child is under 6 years of age;
- (d) Poliomyelitis;
- (e) Rubella;
- (f) Rubeola; and
- (g) Such other diseases as the local board of health or the State Board of Health may determine.

2. The certificate must show that the required vaccines and boosters were given and must bear a signature of a licensed physician or the physician's designee or a registered nurse or the nurse's designee, attesting that the certificate accurately reflects the child's record of immunization.

3. If the requirements of subsection 1 can be met with one visit to a physician or clinic, procedures for conditional enrollment do not apply.

4. A child may enter school conditionally if the parent or guardian submits a certificate from a physician or local health officer that the child is receiving the required immunizations. If a certificate from the physician or local health officer showing that the child has been fully immunized is not submitted to the appropriate school officials within 90 school days after the child was conditionally admitted, the child must be excluded from school and may not be readmitted until the requirements for immunization have been met. A child who is excluded from school pursuant to this section is a neglected child for the purposes of [NRS 432.0999](#) to [432.130](#), inclusive, and [chapter 432B](#) of NRS.

5. Before December 31 of each year, each private school shall report to the Health Division of the Department of Health and Human Services, on a form furnished by the Division, the exact number of pupils who have completed the immunizations required by this section.

6. The certificate of immunization must be included in the pupil's academic or cumulative record and transferred as part of that record upon request.

(Added to NRS by 1971, 1041; A 1979, 316; 1985, 1401; 1987, 1335; 1995, 808)

NRS 394.193 Immunization of pupils: Exemption if prohibited by religious belief. A private school shall not refuse to enroll a child as a pupil because such child has not been immunized pursuant to [NRS 394.192](#) if the parents or guardian of such child have submitted to the governing body a written statement indicating that their religious belief prohibits immunization of such child or ward.

(Added to NRS by 1971, 1041)

NRS 394.194 Immunization of pupils: Exemption if prevented by medical condition. If the medical condition of a child will not permit the child to be immunized to the extent required by [NRS 394.192](#), a written statement of this fact signed by a licensed physician and presented to the governing body by the parents or guardian of such child shall exempt such child from all or part of the provisions of [NRS 394.192](#), as the case may be, for enrollment purposes.

(Added to NRS by 1971, 1041)

NRS 394.196 Immunization of pupils: Additional requirements imposed after enrollment; additional certificate required. If, after a child has been enrolled in a private school and before registration for any subsequent school year additional immunization requirements are provided by law, the child's parents or guardian shall submit an additional certificate or certificates to the governing body stating that such child has met the new immunization requirements.

(Added to NRS by 1971, 1041)

NRS 394.198 Immunization of pupils: Protection of child exempt from immunization if dangerous disease exists in school. Whenever the State Board of Health or a local board of health determines that there is a dangerous contagious disease in a private school attended by a child for whom exemption from immunization is claimed pursuant to the provisions of [NRS 394.193](#) or [394.194](#), the governing body of such private school shall require either that the child:

1. Be immunized; or
2. Remain outside the school environment and the local health officer be notified.

(Added to NRS by 1979, 315)

NRS 394.199 Immunization of pupils: Penalty for refusal to remove child from school when required by law. Any parent or guardian who refuses to remove his or her child from the private school in which the child is enrolled when retention in school is prohibited under the provisions of [NRS 394.192](#), [394.196](#) or [394.198](#) is guilty of a misdemeanor.

(Added to NRS by 1979, 315)

NAC 394.250 Mumps, hepatitis A, hepatitis B, varicella and Bordetella pertussis. ([NRS 394.192](#), [439.200](#))

1. The State Board of Health hereby declares the diseases of:

- (a) Mumps;
- (b) Hepatitis A;
- (c) Hepatitis B;
- (d) Varicella; and
- (e) Bordetella pertussis if a child is 6 years of age or older,

to be communicable diseases.

2. Unless excused because of religious belief or medical condition, a child may not be enrolled in a private school in this State unless he has been immunized against the mumps.

3. Except as otherwise provided in subsection 5, unless excused because of religious belief or medical condition, a child may not be enrolled in a private school in this State:

- (a) After June 30, 2002, unless he has been immunized against hepatitis A and hepatitis B; and
- (b) After June 30, 2003, unless he has been immunized against varicella.

4. Unless excused because of religious belief or medical condition, a child may not be enrolled in grade 7 in a private school in this State after June 30, 2008, unless the child has been immunized against Bordetella pertussis. To satisfy the requirements of this subsection, a child must receive at least one dose of a vaccine against Bordetella pertussis after he obtained 10 years of age.

5. The provisions of:

(a) Paragraph (a) of subsection 3 do not apply to a child who is enrolled in a private school in this State before July 1, 2002; and

(b) Paragraph (b) of subsection 3 do not apply to a child who is enrolled in a private school in this State before July 1, 2003.

(Added to NAC by Bd. of Health, eff. 6-30-88; A by R075-01, 10-23-2001; R099-07, 10-31-2007)—(Substituted in revision for NAC 394.190)

Nevada State Health Division Technical Bulletin



Topic: Summary of Nevada Immunization Requirements for Public and Private School Attendance	Bureau/Program: Bureau of Child, Family and Community Wellness/Immunization Program
Bulletin #: BCFCW-IZ-03-11	
Date: June 1, 2011	
To: Immunization Providers, School Nurses, County Health Officers, School District Administrators, Boards of Trustees of School Districts, and Private School Officials	
Contact: Erin Seward (775) 684-3209	

Nevada Laws Requiring Immunization of Children in Public Schools and Private Schools

UPDATED

NRS 439.550 currently states that timing and schedule of immunizations for school aged children and children in childcare should be set by the local health officer under the direction and supervision of the Health Division.

Nevada's State Health Officer, Dr. Tracey Green, is providing the direction on the timing (schedule) and number of doses for all required immunizations for school aged children.

The following immunization requirements are based on ACIP recommendations (Advisory Committee on Immunization Practices). Direction provided on behalf of the state health officer is intended to create consistency (statewide) and reduce confusion for providers, parents and school districts and private schools **who must comply with the schedules.**

The new immunization requirements will go into effect for all K-12 students new to the school districts beginning with the 2011-2012 school year.

Changes going into effect are:

- Polio Vaccine - 1 dose of Polio Vaccine is required after the child's 4th birthday. If a 4th dose is provided prior to the 4th birthday, **it is invalid.**
- Varicella Vaccine - Second dose of Varicella is required.
- These new requirements are for children **new to a school district.** This includes children enrolling in school for the first time (kindergarten) and children who have moved from a different school district (within Nevada and to Nevada).
- ACIP's recommended ages and intervals between doses of routinely recommended vaccines are required for school entry.
- Utilize ACIP's recommended minimum age and intervals when a child is behind on required immunizations.
- Doses are only valid if they follow the ACIP's recommended ages and intervals (for "on time" or "behind" children).
- A medical exemption requires a contraindication or precaution to the receipt of a given vaccine.

Summary of Nevada Immunization Requirements
For School Attendance
These charts are based on ACIP Recommendations and Nevada Requirements;

Required Number of Doses for Children

ACIP Recommended Schedule								
Required Vaccines	2 mo. of age	4 mo. of age	6 mo. of age	12-15 mo. of age	18-24 mo. of age	4-6 yrs. of age	11-12 yrs. of age	Total Doses Required prior to school entry
DTP, DT, DTaP	1	2	3	4		5*		4 or 5 (If dose #4 is given on or after 4 th birthday #5 is not needed)
Polio (IPV)	1	2	3			4		3 or 4 (If dose #3 is given on or after 4 th birthday, #4 is not needed)
MMR				1		2		2
Hep B	1	2	3					3
Varicella				1		2		2
Hep A				1	2			2
Tdap							1**	1**

Required Vaccines (For primary series administered at age 10 yrs or later)	First Visit	1 mo. after 1 st Dose	1 mo. after 2 nd Dose	1 mo. after 3 rd Dose	4 mos. after 1 st Dose	6 mos. after Previous Dose	Total Doses Required
Td**	1	2				3	3**

* The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose. If 4 doses are administered prior to age 4 years a fifth dose should be administered at age 4 through 6 years. (MMWR 2009;58(30):829-30)

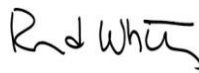
** If primary series is administered at age 10 years or later, 1 dose of the 3 dose series should be Tdap. Regulations require a Pertussis containing vaccine to be administered to a child prior to the 7th grade entry into school. Students of the class of 2012 and 2013 must have had either Td or Tdap to satisfy their booster requirements.

Approved by:



Tracey D Green, MD, State Health Officer

Approved by:



Richard Whitley, MS, Administrator