

STATE OF COLORADO

John W. Hickenlooper, Governor
Larry Wolk, MD, MSPH
Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Laboratory Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver, Colorado 80230-6928
Located in Glendale, Colorado (303) 692-3090

www.colorado.gov/cdphe



Colorado Department
of Public Health
and Environment

Immunization FAQs Required Vaccines for 2014-15 School Year

Immunization Schedules and Documentation

1. Question: What is the difference between the “**recommended**” immunization schedule and the Colorado School “**required**” immunization schedule?

Answer: The “**recommended**” immunization schedule is the optimum schedule approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), the American Academy of Family Physicians (AAFP), and the American College of Obstetricians and Gynecologists (ACOG). This recommended schedule is considered the standard of practice when immunizing children against vaccine preventable disease.

The Colorado School “**required**” immunization schedule is the legislatively mandated immunization schedule required for attendance in Colorado schools.

2. Question: Sometimes there’s confusion as to which schedule to follow, the ACIP “Recommended Schedule” or the Colorado School “Required School Schedule.” Which immunization schedule should Colorado Schools follow?

Answer: Follow the Colorado Board of Health (BOH) rules regarding school required Immunizations. CDC does not provide recommendations to individual states regarding what immunizations are to be mandated for schools. It should be said, if all physicians followed the ACIP schedule, students attending schools will be in compliance with all school required vaccines. The only difference is that for DTaP, Polio and Hepatitis B, there is some grandfathering for some students.

3. Question: What is the ‘**grace period**’ for vaccines that are given earlier than the required age or interval?

Answer: In alignment with the ACIP schedule, “vaccine doses administered no more than 4 days before the minimum interval or age are to be counted as valid.” For example, if MMR or Varicella vaccine is given more than 4 days before the 1st birthday, that dose is NOT considered a valid dose according to both the ACIP recommended vaccine schedule and the Colorado School required immunization schedule.

4. Question: There are times when an immunization record will not include the complete date of vaccine administration. If a full date is not available, what is the “**default date**” for recording a vaccine in the record?

Scenario #1: If the vaccine administered is MMR or Varicella **and** the dose in question was administered at 12 months in the birth month of the child (e.g. the parent’s record indicates a dose of MMR was administered on 12/2001 and the child’s birth date is 12/5/2000).

Answer: The dose should only be counted and recorded in a new clinic record if the month, day and year of the vaccine administration are recorded. If the day the vaccine was administered is not noted, reasonable attempts should be made to obtain the exact day. If this information is not available/located, the dose **SHOULD NOT BE COUNTED**. The student should either have a lab titer drawn to see if they have antibodies or they should have the dose repeated.

Scenario #2: If the vaccine administered is MMR or Varicella **and** the dose in question was administered at least 12 months after the birth month of the child (e.g. the parent’s record indicates a dose of MMR was administered on 12/2001 and the child’s birth date is 11/9/2000).

Answer: The dose should be counted and recorded in a new clinic record if the month, day and year of the vaccine administered are recorded. If the day the vaccine was administered is not noted, reasonable attempts should be made to obtain the exact day. If this information is not available or located, the dose should be recorded as the 15th of the month noted (e.g. the parent’s record indicates a dose of MMR was administered on 12/2001 and the child’s birth date is 11/9/2000). If the exact day the dose was administered cannot be obtained through reasonable efforts, the dose of MMR should be recorded as 12/15/2001).

Scenario #3: If any other dose of vaccine is administered (other than MMR or Varicella) what is the default date?

Answer: The dose should be counted and recorded in a new clinic record if the month, day and year of the vaccine administration are recorded. If the day the vaccine was administered is not noted, reasonable attempts should be made to obtain the exact day. If this information is not available/located, the dose should be recorded as the 15th of the month noted (e.g. the parent’s record indicates a dose of Hepatitis B was administered on 12/2001. If the exact day the dose was administered cannot be obtained through reasonable efforts, the dose of Hepatitis B should be recorded as 12/15/2001).

Varicella Vaccination and Chickenpox Disease

1. Question: What are the grade level requirements for the 1st and 2nd doses of **Varicella** vaccine?

Answer: 1 dose of Varicella is required for students in 8th through 12th grades. 2 doses are required at Kindergarten through 7th grades. (Table 2, BOH rules for 2013-14 school year)

Please note that there have been no changes to the school required immunization schedule for the 2014-15 school year with the exception of the varicella doses.

2. Question: Is documentation of chickenpox disease required to come from a **health care provider**?

Answer: Yes. A physician or Advanced Practice Nurse (APN) diagnosis of disease or a Health Care Provider (physician, nurse or PA) verification/screening of history of chickenpox disease is required. Additionally, a laboratory confirmation showing immunity to the disease is acceptable and becomes part of the immunization record.

3. Question: Can a **public health nurse** or a **school health nurse** document history of chickenpox?

Answer: Yes. For the purposes of facilitating this requirement for documentation of chickenpox disease, it is appropriate for an RN who is a public health nurse in a local health department or a school nurse in a school to screen for the disease history based on parents' report of symptoms. A reliable history of chickenpox disease is important and if, in the screening process, an RN or a physician does not feel that the report from the parent truly describes the disease, education about the varicella vaccine and/or the referral to a provider's office or clinic for vaccination is appropriate.

4. Can a Health Para screen for Chickenpox disease?

Answer: No. Although the role of the Health Para is so important in reviewing school immunizations, a Health Care Provider (Physician, Nurse, PA) is the only person who can screen for history of disease.

5. Question: What is considered acceptable **documentation of a history of chickenpox disease**?

Answer: The documentation of disease may come from the child's medical record, be noted on a prescription pad or on an alternate form that comes from the provider's office. If a public health nurse or a school nurse screens for the disease history and determines the child has had chickenpox, he/she can record the date in the appropriate box in the Certificate of Immunization.

6. Question: In obtaining a reliable history of chickenpox, how are both **primary infection** and **breakthrough disease** identified?

Primary Infection (Chickenpox): "In children, the rash is often the first sign of disease. The rash is generalized and pruritic (itching) and progresses rapidly from macules to papules to vesicular lesions before crusting. The rash typically appears first on the head, then on the trunk and then the extremities; the highest concentration of lesions is on the trunk. Lesions also occur on mucous membranes of the oropharynx, respiratory tract, vagina, conjunctiva, and the cornea. Lesions are usually 1 to 4 mm in diameters. The vesicles are superficial and delicate and contain clear fluid on an erythematous base. Vesicles may rupture or become purulent before they dry and crust. Successive crops appear over several days, with lesions present in several stages of development. Healthy children usually have 200 to 500 lesions in 2 to 4 successive crops and illness lasts, typically, 5 to 10 days. The clinical course is generally mild, with malaise, itching and a temperature up to 102 degrees F for 2 – 3 days. <http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/varicella.pdf> (p. 203)

Breakthrough Disease: "A case of wild-type varicella infection occurring more than 42 days after vaccination. Such disease is usually mild with a shorter duration of illness, fewer constitutional symptoms, and fewer than 50 skin lesions. Breakthrough cases with fewer than 50 lesions have been

found to be one third as contagious as varicella in unvaccinated persons with 50 or more lesions, but breakthrough cases with 50 or more lesions can be just as contagious as cases in unvaccinated persons.” (VPD Surveillance Manual, 5th Edition, 2011, Varicella, Chapter 17-1: <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt17-varicella.pdf>). **If a school nurse or public health nurse does not feel that the report of disease is reliable, provide education and refer to clinic for vaccine. A lab test (titer) can be done to see if protective antibodies are present.**

7. Question: What kinds of questions would be useful in screening for a history of chicken pox disease?

Answer: Based on the description of disease noted above these are questions you can ask the parent:

a. **What were the symptoms your child experienced?** (typical signs and symptoms include rash, fever, cough, fussiness, headache, decreased appetite).

b. **Describe the rash your child had.** (rash usually develops on the scalp and trunk of the body and then spreads to face arms and legs).

c. **About how many lesions (pox) did your child have and describe the characteristics?** (typically 200 – 500 hundred pox form and they are itchy. They also appear in successive crops. Illness 5 – 10 days).

d. **About how many lesions (pox) did your child have and describe the characteristics?** (typically 200 – 500 hundred pox form and they are itchy. They also appear in successive crops. Illness 5 – 10 days).

5. Did other children in the school, neighborhood, community have chickenpox disease? (Chickenpox is very contagious. If the parent relates that their child was exposed to other kids with disease, this is helpful in screening for disease)

8. If a parent reports that their child had chickenpox disease (no documentation of disease or has not been screened for history of disease), can the school accept the “parent report” of disease?

Answer: No. It is required that if there is no documentation of chickenpox disease, a nurse, PA or physician must screen for the history of chickenpox disease.

Tdap/Td/DTaP

1. Question: What is the DTaP vaccine requirement for Colorado students?

Answer: DTaP is the pediatric vaccine licensed for children through 6 years of age. 5 doses of DTaP vaccines are required at school entry unless the 4th dose was given at 48 months of age (i.e., on or after the 4th birthday) in which case only 4 doses are required. There must be at least 4 weeks between dose 1 and 2, at least 4 weeks between dose 2 and dose 3, at least 4 months between dose 3 and 4 and at least 6 months between dose 4 and dose 5. The final dose must be given no sooner than 4 years of age (dose 4 may be given at 12 months of age provided there is at least 4 months between dose 3 and 4). If a child has received 6 doses of DTaP before the age of 7 years, no additional doses are required. For those students who received 4 or 5 appropriately spaced doses of DTaP as mandated before the rule change in 7/1/2009, they are compliant with the DTaP series regardless of the currently stated intervals.

2. Question: What grades are required to have **Tdap** (tetanus/diphtheria/pertussis) vaccine for the 2014-15 school year?

Answer: One dose of Tdap vaccine has been required for all incoming 6th through 12th graders. Because the CDC has approved a Tdap dose for some students as early as 7 years of age (students who have not completed the full DTaP series before 6 years of age), those kids will have met the Tdap requirement for 6th grade entry. Tdap is currently licensed for a one time dose only!

3. Question: Is there a minimum interval between the **Td, DT** or **DTaP** and the **Tdap** vaccine?

Answer: No. The ACIP recommendations for children's vaccines have established that there is NO minimum interval between Tdap and any other tetanus/diphtheria containing vaccines, including DTaP. The Colorado School Required Vaccine Schedule aligns with the ACIP recommendation so that grades 6th through 12th regardless of when the last Td, DT, or DTaP was administered are required to receive a Tdap to meet school compliance.

4. Question: What is the difference between the 2 tetanus/diphtheria/pertussis containing vaccines, **DTaP** and **Tdap**?

Answer: **DTaP** is the vaccine licensed for children ages 6 weeks through 6 years of age and is administered in a series of 4 or 5 doses. Intervals include at least 4 weeks between dose 1 and 2, at least 4 weeks between dose 2 and dose 3, 4 months between dose 3 and dose 4 and at least 6 months between dose 4 and dose 5. If the 4th dose was administered on or after the 4th birthday, a 5th dose is not required. The final dose must be given no sooner than 4 years of age and no more than 6 doses of DTaP should ever be administered. DTaP is not to be administered to children 7 years and older. **Tdap** is the vaccine that is licensed for children beginning at ages 10 or 11 years, however CDC has approved Tdap to be administered to children between the ages of 7 through 9 years of age if they were under-immunized with DTaP vaccine. For those children who do not have 3 appropriately spaced tetanus/diphtheria containing vaccines (DT, DTaP, Td, Tdap) they will need to receive three appropriately spaced tetanus and diphtheria containing vaccines and includes a minimum interval of 4 weeks between dose 1 and 2 and 6 months between dose 2 and 3.

5. Question: Is there a minimum interval between the administration of DTaP, Td and Tdap?

Answer: There is NO minimum interval between Tdap and any other tetanus/diphtheria containing vaccines, including DTaP. This is noted on the "Recommended immunization schedule for persons aged 0 through 18 years – 2013" and can be found in footnote #4, 2nd bullet. Not only is this an ACIP recommendation, observing the "no interval" rule.

6. Question: What if a student, 7 years of age or older, does not have a complete series of DTaP vaccinations? What is the school requirement?

Answer: Because DTaP is only licensed through 6 years of age, it is not to be given to a child once they turn 7 years of age. In this case what is required is to insure that 3 appropriately spaced tetanus and diphtheria containing vaccine (DT, DTaP, Td, Tdap) are noted in the immunization record. The appropriate intervals include 4 weeks between dose 1 & 2 and 6 months between dose 2 & 3.

Note: ACIP **recommends** that if a child is 7 to 10 years of age and has not had a complete series of DTaP vaccine, they "**should**" receive 1 dose of Tdap). This is **not** a school immunization

requirement, however, if you have a record of a child 7 – 10 yrs with Tdap, the 6th grade entry requirement for Tdap is met.

7. Question: If a student receives an “inadvertent” dose of DTaP, what is the required schedule?

Answer: There are times when DTaP may have been inadvertently administered to a student 7 years or older (remember that DTaP is only licensed for children through 7 years of age). The school requirement doesn't address this situation and the rule states a student is required to receive a Tdap, regardless of when the last tetanus/diphtheria immunization was administered.

Issue: Although CDC informs clinicians to follow state school immunization laws over the ACIP Recommended Schedule, some clinicians choose NOT to administer Tdap after an inadvertent dose of DTaP. Clinicians may not be aware of this guidance from CDC as these are the ACIP recommendations after an inadvertent dose:

1. “If administered inadvertently to a child aged 7 through 10 years, may count as part of the catch-up series. This dose may count as the adolescent Tdap dose, **or** the child can later receive a Tdap booster dose at age 11 through 12 years.
2. If (DTaP) is administered inadvertently to an adolescent aged 11 through 18 years, the dose should be counted as the adolescent Tdap booster.

Compliance: The goal is to protect students from disease and to preserve the relationships between physicians, parents and schools. If a health care provider chooses not to administer a Tdap after an inadvertent dose of DTaP, a parent may be in compliance by signing the personal belief exemption for that Tdap dose. The Colorado Immunization Section will address this issue in the 2015-16 School Required Immunization schedule.

Hepatitis B

1. Question: What is the Requirement for **Hepatitis B** (Hep B) Vaccine?

Answer: For those students who met the Hep B compliance established before 07/01/2009 those students are in compliance. For students new to the Colorado school system and for students who did not completed the 3 dose series of Hepatitis B vaccine prior to 7/1/09, those doses must follow minimum intervals as established by ACIP. The minimum intervals include: The second dose of vaccine is to be administered at least 4 weeks after the first dose, and the third dose should be administered at least 16 weeks after the first dose and at least 8 weeks after the second dose. The final dose must be administered at least 24 weeks of age (6 months of age) in order to be counted as a valid dose in the Hepatitis B series. There is a 2 dose series available for students 11 to 15 years of age. It is required that a student provides written documentation from a licensed physician that the student has received two doses of Recombivax HB using the adult dose (1.0 ml containing 10 µg of hepatitis b surface antigen), with the second dose given 4 to 6 months after the first dose. The specific name of the vaccine, the exact dose of antigen per injection, and the dates of administration must be included as part of the documentation.

Polio

1. Question: What is the polio recommendation for Colorado students?

Answer: Four doses of polio vaccine are required at school entry in Colorado. There must be at least 4 weeks between dose 1 and dose 2, at least 4 weeks between dose 2 and 3 and at least 6 months between dose 3 and 4. The final dose must be given no sooner than 4 years of age. A fourth dose is not necessary if the third dose was administered at age 4 years or older and at least 6 months after the previous dose. **Note:** For students who were series complete prior to July 1, 2009, (4 week intervals between doses were acceptable) those students have met the polio requirement.

2. Question: Are students 19 years of age and older who are attending a Colorado school required to receive the full series of polio vaccines?

Answer: Yes. At this time students who are 19 years of age and older, and who are still attending school are required to receive the full series of polio vaccine.

MMR

1. Question: What is the MMR requirement for students?

Answer: All Colorado students are required to have 2 doses of measles, 2 doses of mumps and at least 1 dose of rubella vaccine. (In almost all cases you will see students receive 2 doses of MMR, however, there are students from other countries who may receive single antigen measles, mumps and rubella).

Childcare and Preschool Required Vaccines

Pneumococcal Conjugate Vaccine (PCV)

1. Question: What is the required pneumococcal conjugate vaccine (PCV) immunization schedule for children in the child care and preschool settings?

Answer: The required child care/preschool immunization requirement for the PCV vaccine follows the ACIP recommended schedule which states: "If the first dose was administered before 6 months of age, the child is required to receive 3 doses 2 months apart and an additional dose between 12 – 15 months of age. If started between the ages of 7 – 11 months of age, the child is required to receive 2 doses, two months apart and an additional dose between 12 – 15 months of age. For any student who received the 3rd dose on or after the first birthday, a 4th dose is not required. If the 1st dose was given at 12 to 23 months of age, 2 doses are required. If any dose was given at 24 months of age through 4 years of age, the PCV requirement has been met. If the current age is 5 years or older, no new or additional doses are required.

Haemophilus influenzae type b - Hib

1. Question: What is the required Hib immunization schedule for children in the child care and preschool settings?

Answer: If any dose was given at 15 months of age or older, the Hib vaccine requirement is met. For students who began the series before 12 months of age, 3 doses are required of which at least 1 dose must have been administered at 12 months of age or older (i.e., on or after the 1st birthday). If the 1st dose was given at 12 to 14 months of age, 2 doses are required. If the current age is 5 years or older, no new or additional doses are required.

Certificate of Immunization

1. Question: When is the Certificate of Immunization (CI) to be signed?

Answer: The Certificate of Immunization is to be signed only when ALL required immunizations have been administered. The Certificate of Immunization won't be signed until the adolescent Tdap vaccine has been given. If a student has an exemption, the CI is **not** to be signed.

Catch up Immunization Schedules

1. Question: Sometimes students are behind on their immunizations. Does the BOH Rule suggest the implementation of the ACIP "catch up" schedule?

Answer: Yes, the BOH rules state that if a child is behind on their immunization schedule they are to follow the "recommended minimum intervals...." See "catch up" chart:

<http://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html>

Colorado School Required Information Resource

1. Question: Where is school required immunizations information located on the CDPHE website?

Answer: Go to the *Colorado Immunization Section* website: www.ColoradoImmunizations.com

On the navigation bar to the left on the home page click on "*School Immunizations.*" This will bring you to the "Schools" page where you can access all school required information.

For school immunization questions please contact:

Jamie D'Amico, RN, MSN, CNS at 303-692-2957 or jamie.damico@state.co.us

Maintaining Relationships:

The Colorado Immunization Section is aware of the problems that can occur when physicians do not immunize according to the Colorado School Required Immunization Schedule. There may be very good reasons for a physician to follow the ACIP Recommended Schedule and Colorado provides the opportunity for the parent to sign an exemption in order to be in compliance with school law.

It is our hope that there can be a harmonizing of the ACIP and Colorado Required Immunization schedule in the future so that obstacles and conflicts are avoided. Because of the rigorous process of presenting before the Colorado Board of Health any changes to the existing school required immunization schedule, it can take up to a year to make those changes.

If you have questions or concerns, please contact Jamie D'Amico at 303-692-2957. The Colorado Immunization Section is willing to assist you in addressing those inherent issues that can arise in response to the two immunization schedules.