Tables 1 and 2 provide 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. Always use these tables in conjunction with the footnotes that follow.

### Table 1. Catch-up Schedule for Children Age 4 Months Through 6 Years

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for Dose 1</th>
<th>Dose 1 to Dose 2</th>
<th>Dose 2 to Dose 3</th>
<th>Dose 3 to Dose 4</th>
<th>Dose 4 to Dose 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hepatitis B</strong></td>
<td>Birth</td>
<td>4 weeks</td>
<td>8 weeks and at least 16 weeks after first dose; minimum age for the final dose is 24 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diphtheria, Tetanus, Pertussis</strong></td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td>6 months</td>
<td>6 months²</td>
</tr>
<tr>
<td><strong>Haemophilus Influenzae type b</strong></td>
<td>6 wks</td>
<td>4 weeks if first dose administered before the 1st birthday, 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</td>
<td>4 weeks if current age is younger than 12 months, and first dose was administered at younger than age 7 months, and at least 1 previous dose was ActHiB, Pentacel or unknown, 8 weeks and age 12 through 59 months (as final dose) if current age is 12 through 59 months</td>
<td>8 weeks (as final dose) This dose only necessary for children aged 12 months through 59 months who received 3 doses before the 1st birthday, No further doses needed if previous dose administered at age 15 months or older</td>
<td></td>
</tr>
<tr>
<td><strong>Pneumococcal</strong></td>
<td>6 wks</td>
<td>4 weeks if first dose administered before the 1st birthday, 8 weeks (as final dose for healthy children) if first dose administered at the 1st birthday or after, No further doses needed for healthy children if first dose administered at age 24 months or older</td>
<td>4 weeks if current age is younger than 12 months, and first dose was administered at age 7 through 11 months, OR, first dose was administered before the 1st birthday and second dose administered at younger than 15 months, OR, if both doses were PRP-OMP (PedvaxHIB; Comvax) and were administered before the 1st birthday</td>
<td>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 high risk children who receive 3 doses at any age</td>
<td></td>
</tr>
<tr>
<td><strong>Inactivated Poliovirus</strong></td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks if current age is younger than 12 months and previous dose given at less than 7 months old, 8 weeks (as final dose for healthy children) if previous dose given between 7 through 11 months (wait until at least 12 months old); OR, if current age is 12 months or older and at least 1 dose was given before age 12 months</td>
<td>6 months (minimum age 4 years for final dose)</td>
<td></td>
</tr>
<tr>
<td><strong>Measles, Mumps, Rubella</strong></td>
<td>12 mos</td>
<td>4 weeks</td>
<td>6 months (minimum age 4 years for final dose)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Varicella</strong></td>
<td>12 mos</td>
<td>3 months</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Hepatitis (Hep B) vaccine
- Unvaccinated persons should complete a 3-dose series.

2 Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine
- The fifth dose of DTaP vaccine is not necessary if the fourth dose was administered at age 4 years or older.
3 Haemophilus influenzae type b conjugate (Hib) vaccine
• If dose 1 was administered at ages 12-14 months, administer a second (final) dose at least 8 weeks after dose 1, regardless of Hib vaccine used in the primary series.
• If both doses were PRP-OMP (PedvaxHIB or COMVAX), and were administered before the first birthday, the third (and final) dose should be administered at age 12 through 59 months and at least 8 weeks after the second dose.
• If first dose was administered at age 7 through 11 months, administer the second dose at least 4 weeks later and a third (and final) dose at age 12 through 15 months or 8 weeks after second dose, whichever is later.
• If first dose is administered before the first birthday and second dose administered at younger than 15 months, a third (and final) dose should be given 8 weeks later.
• For unvaccinated children aged 15 months or older, administer only 1 dose.

4 Pneumococcal vaccines (Minimum age: 6 weeks for pneumococcal conjugate vaccine (PCV).
• Administer 1 dose of PCV 13 to all healthy children aged 24 months through 59 months who are not completely vaccinated for their age.

5 Inactivated poliovirus (IPV) vaccine
• 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).
• If 4 or more doses are administered before age 4 years, an additional dose should be administered at age 4 through 6 years and at least 6 months after 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 after 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. If only OPV was administered, and all doses were given prior to 4 years of age, one dose of IPV should be given at 4 years or older, at least 4 weeks after the last OPV dose.

6 Measles, mumps, and rubella (MMR) vaccine
• Ensure that all school-aged children and adolescents have had 2 doses of MMR vaccine; the minimum interval between the 2 doses is 4 weeks.

7 Varicella Vaccine
• The second dose may be administered before 4 years of age, provided at least 3 months have elapsed since the first dose. If the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

Table 2. Catch-up Schedule for Children and Adolescents Age 7 Through 18 Years

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for Dose1</th>
<th>Dose 1 to Dose 2</th>
<th>Dose 2 to Dose 3</th>
<th>Dose 3 to Dose 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningococcal(^1)</td>
<td>6 weeks</td>
<td>8 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus, Diphtheria / Tetanus, Diphtheria, Pertussis(^2)</td>
<td>7 yrs(^2)</td>
<td>4 weeks</td>
<td>4 weeks if first dose of DTaP/DT administered before the 1st birthday</td>
<td>6 months if first dose of DTaP/DT administered before the 1st birthday</td>
</tr>
<tr>
<td>Hepatitis B(^3)</td>
<td>Not Applicable (N/A)</td>
<td>4 weeks</td>
<td>8 weeks and at least 16 weeks after first dose</td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliovirus(^4)</td>
<td>N/A</td>
<td>4 weeks</td>
<td>4 weeks(^4)</td>
<td>6 months(^4)</td>
</tr>
<tr>
<td>Measles, Mumps, Rubella(^5)</td>
<td>N/A</td>
<td>4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella(^6)</td>
<td>N/A</td>
<td>3 months if younger than age 13 years</td>
<td>4 weeks if age 13 years or older</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Meningococcal vaccines
• Administer Menactra or Menveo vaccine at age 13 through 18 years if not previously vaccinated.
• If the first dose is administered at age 13 through 15 years, a booster dose should be administered at age 16 through 18 years with a minimum interval of at least 8 weeks between doses.
• If the first dose is administered at age 16 years or older, a booster dose is not needed.

\(^2\) Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis (Tdap) vaccine
• Persons aged 7 years and older who are not fully immunized with DTaP vaccine should receive Tdap vaccine as 1 dose (preferably the first) in the catch-up series; if additional doses are needed, use Td vaccine. For children 7 through 10 years who receive a dose of Tdap as part of the catch-up series, an adolescent Tdap vaccine dose at age 11 through 12 years should NOT be administered. Td should be administered instead 10 years after the Tdap dose.
• Persons aged 11 through 18 years who have not received Tdap vaccine should receive a dose followed by tetanus and diphtheria toxoids (Td) booster doses every 10 years thereafter.
• Inadvertent doses of DTaP vaccine:
  − 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.
  − If administered inadvertently to an adolescent aged 11 through 18 years, the dose should be counted as the adolescent Tdap booster.

3 Hepatitis B (HepB) vaccine
• Unvaccinated persons should complete a 3-dose series.
• A 2-dose series (doses separated by at least 4 months) of adult formulation Recombivax HB is licensed for use in children aged 11 through 15 years.

4 Inactivated poliovirus (IPV) vaccine
• 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.
• 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. If only OPV was administered, and all doses were given prior to 4 years of age, one dose of IPV should be given at 4 years or older, at least 4 weeks after the last OPV dose.
• IPV is not routinely recommended for U.S. residents aged 18 years or older.

5 Measles, mumps, and rubella (MMR) vaccine
• Ensure that all school-aged children and adolescents have had 2 doses of MMR vaccine; the minimum interval between the 2 doses is 4 weeks.

6 Varicella (VAR) vaccine
• Ensure that all persons aged 7 through 18 years without evidence of immunity (see MMWR 2007;56 [No. RR-4], available at http://www.cdc.gov/mmwr/pdf/rr/rr5604.pdf) have 2 doses of varicella vaccine. For children aged 7 through 12 years the recommended minimum interval between doses is 3 months (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.