### Catch-up Immunization Schedule for Persons Aged 4 Months–6 Years

#### Recommended Immunization Schedules for Persons Aged 0–18 Years

**UNITED STATES, 2007**

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children aged 0–6 years. Additional information is available at [http://www.cdc.gov/nip/recs/child-schedule.htm](http://www.cdc.gov/nip/recs/child-schedule.htm). Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective Advisory Committee on Immunization Practices statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [http://www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

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### Table: Recommended Immunization Schedules

**CATCH-UP SCHEDULE FOR PERSONS AGED 4 MONTHS–6 YEARS**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age</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>Hepatitis B*</td>
<td>Birth</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td>8 weeks</td>
<td></td>
</tr>
<tr>
<td>Rotavirus&lt;sup&gt;+&lt;/sup&gt;</td>
<td>6 weeks</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diptheria, tetanus, pertussis&lt;sup&gt;+&lt;/sup&gt;</td>
<td>6 weeks</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae type b&lt;sup&gt;+&lt;/sup&gt;</td>
<td>6 weeks</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal&lt;sup&gt;+&lt;/sup&gt;</td>
<td>0 weeks</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliomyelus&lt;sup&gt;+&lt;/sup&gt;</td>
<td>6 weeks</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumps, Measles, Rubella&lt;sup&gt;+&lt;/sup&gt;</td>
<td>12 mos</td>
<td>4 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A&lt;sup&gt;+&lt;/sup&gt;</td>
<td>12 mos</td>
<td>6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Td&lt;sup&gt;+&lt;/sup&gt;, Diphtheria, tetanus, Pertussis&lt;sup&gt;+&lt;/sup&gt;</td>
<td>7 yrs&lt;sup&gt;+&lt;/sup&gt;</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td>4 weeks&lt;sup&gt;+&lt;/sup&gt;</td>
<td>4 weeks&lt;sup&gt;+&lt;/sup&gt;</td>
</tr>
<tr>
<td>Human Papillomavirus&lt;sup&gt;+&lt;/sup&gt;</td>
<td>9 yrs</td>
<td>4 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B&lt;sup&gt;+&lt;/sup&gt;</td>
<td>Birth</td>
<td>6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliomyelus&lt;sup&gt;+&lt;/sup&gt;</td>
<td>6 weeks</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella&lt;sup&gt;+&lt;/sup&gt;</td>
<td>12 mos</td>
<td>6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella&lt;sup&gt;+&lt;/sup&gt;</td>
<td>12 mos</td>
<td>6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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* 1. Hepatitis B vaccine (HepB). (Minimum age: birth)  
   - Administer the 3-dose series to those who were not previously vaccinated.  
   - A 2-dose series of Recombivax HB® is licensed for children aged 11–15 years.  
   - Do not start the series later than age 12 weeks.  
   - Administer the final dose in the series by age 12 months. Do not administer a dose later than age 12 weeks.  
   - Data on safety and efficacy outside of these age ranges are insufficient.

* 2. Rotavirus vaccine (Rotavirus vaccine). (Minimum age: 6 weeks)  
   - Do not start the series later than age 12 weeks.  
   - Administer the final dose in the series by age 32 weeks. Do not administer a dose later than age 32 weeks.  
   - Data on safety and efficacy outside of these age ranges are insufficient.

* 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)  
   - The DTaP dose is not necessary if the fourth dose was administered at age ≥ 12 months.  
   - A 5-year interval from the last Td dose is encouraged when Tdap is used as a booster dose.

* 4. Haemophilus influenzae type b conjugate vaccine (HiB). (Minimum age: 6 weeks)  
   - Vaccine is generally recommended for children aged ≥ 5 years.  
   - If current age < 12 months and the first 2 doses were PRP-OMP (PedvaxHiB® or ComVax® [Merck]), the third (and final) dose should be administered at age ≥ 12 months.

* 5. Pneumococcal conjugate vaccine (PCV). (Minimum age: 6 weeks)  
   - This dose is not recommended for children aged ≥ 2 years.

* 6. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)  
   - For children who received an IPV or an oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥ 4 years.

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### Recommended Immunization Schedule for Persons Aged 0–6 Years — UNITED STATES • 2007

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age</th>
<th>Dose</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B vaccine (HepB).</td>
<td></td>
<td></td>
<td>• Administer monovalent HepB to all newborns before hospital discharge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If mother is hepatitis surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HBsAg status is unknown, administer HepB within 12 hours of birth. Determine the HBsAg status as soon as possible and if HBsAg-positive, administer HBIG (no later than age 1 week).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If mother is HBsAg-negative, the birth dose can only be delayed with physician’s order and mother’s negative HBsAg laboratory report documented in the infant’s medical record.</td>
</tr>
</tbody>
</table>

#### After the birth dose:

- **The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB.**
- The second dose should be administered at age 1-2 months. The final dose should be administered at age 4-6 months. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of 2 doses of a licensed HepB vaccine series, at age 8-15 months (generally at the next well-child visit).

**4-month dose:**

- It is permissible to administer 4 doses of HepB when combination vaccine containing HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

- **2. Rotavirus vaccine (RotA).** (Minimum age: 6 weeks)
  - Administer the first dose at age 6-12 weeks. Do not start the series later than 12 weeks.
  - Administer the final dose in the series by age 32 weeks. Do not administer a dose later than age 32 weeks.

- **3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).** (Minimum age: 6 weeks)
  - The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose. The fifth dose can be administered at ages 4-6 years.

- **Haemophilus influenzae type b conjugate vaccine (Hib).** (Minimum age: 6 weeks)
  - If PRP-OMP (“PedvaxHIB® or ComVax® [Merck] is administered at ages 2 and 4 months, a dose at age 6 months is not required.

- **Tribuvac® (DTaP) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in children ≥2 months.**

#### 5. Pneumococcal vaccine. (Minimum age: 6 weeks for pneumococcal conjugate vaccine (PCV), 2 years for pneumococcal polysaccharide vaccine (PPV))

- **Administer PCV at ages 2-3 months in certain high-risk groups.**
- **Administer DTaP at age 2 in certain high-risk groups.**

#### 6. Influenza vaccine. (Minimum age: 6 months for inactivated influenza vaccine; 9 months for live, attenuated influenza vaccine [LAIV])

- **All children aged 6-23 months and close contacts of all children aged 6-29 months are recommended to receive influenza vaccine.**
- **Influenza vaccine is recommended annually for children ≥24 months with certain risk factors, health-care workers, and other persons (including household members) in close contact with persons in groups at high risk.**
- **For healthy persons aged 5-49 years, LAIV may be used as an alternative to TIV.**
- **Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).**

**4-weeks dose:**

- **Varicella vaccine.** (Minimum age: 12 months)
  - Administer 1 dose of the vaccine to all children aged ≥12 months.
  - Administer 2 doses of varicella vaccine at age 4-8 years.
  - Administer 3 doses of varicella vaccine at age 12-16 years.


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

#### 6. Inactivated poliovirus vaccine (IPV). (Minimum age: 12 months)

- **The 2 doses in the series should be administered at least 6 weeks apart.**
- **HepA is recommended for certain other groups of children, including in areas where vaccination programs target older children.**
- **See MMWR 2006;55(No. RR-10): 1-41.**

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

- **Children aged ≥2 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).**

- **3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (Tdap).** (Minimum age: 11-12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoids vaccine (Td) booster dose)
  - Adolescents aged 13-18 years who missed the 11-12 year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTP/DTaP vaccination series.

#### 2. Human papillomavirus vaccine (HPV) (Minimum age: 13 years)

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

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

- **Administer MCV4 to children aged ≥11-12 years.**
  - **Meningococcal polysaccharide vaccine (PPV).** (Minimum age: 2 years)
    - **Administer for certain high-risk groups.**