### 2019 Recommended Immunizations for Children from Birth Through 6 Years Old

**Birth**  
- HepB

**1 month**  
- HepB

**2 months**  
- HepB  
- RV
- DTaP
- Hib
- PCV13
- IPV

**4 months**  
- HepB  
- RV
- DTaP
- Hib
- PCV13
- IPV

**6 months**  
- HepB  
- RV
- DTaP
- Hib
- PCV13
- IPV

**12 months**  
- HepB  
- DTaP
- Hib
- PCV13
- IPV

**15 months**  
- DTaP
- Hib
- PCV13
- IPV

**18 months**  
- DTaP
- Hib
- PCV13
- IPV

**19–23 months**  
- DTaP
- Hib
- PCV13
- IPV

**2–3 years**  
- DTaP
- Hib
- PCV13
- IPV

**4–6 years**  
- DTaP
- Hib
- PCV13
- IPV

**MMR**  
- Varicella

**HepA§**

**Influenza (Yearly)***

**FOOTNOTES:**  
* Two doses given at least four weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group.

§ Two doses of HepA vaccine are needed for lasting protection. The first dose of HepA vaccine should be given between 12 months and 23 months of age. The second dose should be given 6 months after the last dose. HepA vaccination may be given to any child 12 months and older to protect against hepatitis A. Children and adolescents who did not receive the HepA vaccine and are at high risk should be vaccinated against hepatitis A.

If your child has any medical conditions that put him at risk for infection or is traveling outside the United States, talk to your child’s doctor about additional vaccines that he or she may need.

**NOTE:**  
If your child misses a shot, you don’t need to start over. Just go back to your child’s doctor for the next shot. Talk with your child’s doctor if you have questions about vaccines.

For more information, call toll-free 1-800-CDC-INFO (1-800-232-4636) or visit www.cdc.gov/vaccines/parents

**Is your family growing?** To protect your new baby against whooping cough, get a Tdap vaccine. The recommended time is the 27th through 36th week of pregnancy. Talk to your doctor for more details.

See back page for more information on vaccine-preventable diseases and the vaccines that prevent them.

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**U.S. Department of Health and Human Services**  
**Centers for Disease Control and Prevention**

**American Academy of Pediatrics**  
**American Academy of Family Physicians**
### Vaccine-Preventable Diseases and the Vaccines that Prevent Them

<table>
<thead>
<tr>
<th>Disease</th>
<th>Vaccine</th>
<th>Disease spread by</th>
<th>Disease symptoms</th>
<th>Disease complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickenpox</td>
<td>Varicella vaccine protects against chickenpox.</td>
<td>Air, direct contact</td>
<td>Rash, tiredness, headache, fever</td>
<td>Infected blisters, bleeding disorders, encephalitis (brain swelling), pneumonia (infection in the lungs)</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>DTaP* vaccine protects against diphtheria.</td>
<td>Air, direct contact</td>
<td>Sore throat, mild fever, weakness, swollen glands in neck</td>
<td>Swelling of the heart muscle, heart failure, coma, paralysis, death</td>
</tr>
<tr>
<td>Hib</td>
<td>Hib vaccine protects against <em>Haemophilus influenzae</em> type b.</td>
<td>Air, direct contact</td>
<td>May be no symptoms unless bacteria enter the blood</td>
<td>Meningitis (infection of the covering around the brain and spinal cord), intellectual disability, epiglottitis (life-threatening infection that can block the windpipe and lead to serious breathing problems), pneumonia (infection in the lungs), death</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>HepA vaccine protects against hepatitis A.</td>
<td>Direct contact, contaminated food or water</td>
<td>May be no symptoms, fever, stomach pain, loss of appetite, fatigue, vomiting, jaundice (yellowing of skin and eyes), dark urine</td>
<td>Liver failure, arthralgia (joint pain), kidney, pancreatic and blood disorders</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>HepB vaccine protects against hepatitis B.</td>
<td>Contact with blood or body fluids</td>
<td>May be no symptoms, fever, headache, weakness, vomiting, jaundice (yellowing of skin and eyes), joint pain</td>
<td>Chronic liver infection, liver failure, liver cancer</td>
</tr>
<tr>
<td>Influenza (Flu)</td>
<td>Flu vaccine protects against influenza.</td>
<td>Air, direct contact</td>
<td>Fever, muscle pain, sore throat, cough, extreme fatigue</td>
<td>Pneumonia (infection in the lungs)</td>
</tr>
<tr>
<td>Measles</td>
<td>MMR** vaccine protects against measles.</td>
<td>Air, direct contact</td>
<td>Rash, fever, cough, runny nose, pink eye</td>
<td>Encephalitis (brain swelling), pneumonia (infection in the lungs), death</td>
</tr>
<tr>
<td>Mumps</td>
<td>MMR** vaccine protects against mumps.</td>
<td>Air, direct contact</td>
<td>Swollen salivary glands (under the jaw), fever, headache, tiredness, muscle pain</td>
<td>Meningitis (infection of the covering around the brain and spinal cord), encephalitis (brain swelling), inflammation of testicles or ovaries, deafness</td>
</tr>
<tr>
<td>Pertussis</td>
<td>DTaP* vaccine protects against pertussis (whooping cough).</td>
<td>Air, direct contact</td>
<td>Severe cough, runny nose, apnea (a pause in breathing in infants)</td>
<td>Pneumonia (infection in the lungs), death</td>
</tr>
<tr>
<td>Polio</td>
<td>IPV vaccine protects against polio.</td>
<td>Air, direct contact, through the mouth</td>
<td>May be no symptoms, sore throat, fever, nausea, headache</td>
<td>Paralysis, death</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>PCV13 vaccine protects against pneumococcus.</td>
<td>Air, direct contact</td>
<td>May be no symptoms, pneumonia (infection in the lungs)</td>
<td>Bacteremia (blood infection), meningitis (infection of the covering around the brain and spinal cord), death</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>RV vaccine protects against rotavirus.</td>
<td>Through the mouth</td>
<td>Diarrhea, fever, vomiting</td>
<td>Severe diarrhea, dehydration</td>
</tr>
<tr>
<td>Rubella</td>
<td>MMR** vaccine protects against rubella.</td>
<td>Air, direct contact</td>
<td>Sometimes rash, fever, swollen lymph nodes</td>
<td>Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects</td>
</tr>
<tr>
<td>Tetanus</td>
<td>DTaP* vaccine protects against tetanus.</td>
<td>Exposure through cuts in skin</td>
<td>Stiffness in neck and abdominal muscles, difficulty swallowing, muscle spasms, fever</td>
<td>Broken bones, breathing difficulty, death</td>
</tr>
</tbody>
</table>

* DTaP combines protection against diphtheria, tetanus, and pertussis.
** MMR combines protection against measles, mumps, and rubella.