

# Contraindications and Precautions<sup>1</sup> to Vaccines for Children and Adults

VACCINE	TRUE CONTRAINDICATIONS / PRECAUTIONS <sup>2</sup>	UNTRUE (Vaccines may be administered)
<b>General for all routine vaccines</b> , including diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP); pediatric diphtheria-tetanus toxoid (DT); adult tetanus-diphtheria toxoid (Td); tetanus-reduced-diphtheria toxoid and acellular pertussis vaccine (Tdap); inactivated poliovirus vaccine (IPV); measles-mumps-rubella vaccine (MMR); <i>Haemophilus influenzae</i> type b vaccine (Hib); hepatitis A vaccine; hepatitis B vaccine; varicella vaccine; Rotavirus vaccine; pneumococcal conjugate vaccine (PCV); inactivated influenza vaccine (TIV); live-attenuated influenza vaccine (LAIV); pneumococcal polysaccharide vaccine (PPV); meningococcal conjugate vaccine (MCV); meningococcal polysaccharide vaccine (MPSV); human papillomavirus vaccine (HPV); and herpes zoster vaccine (HZ)	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Mild acute illness with or without fever</li> <li>→ Mild to moderate local reaction (i.e., swelling, redness, soreness); low-grade or moderate fever after previous dose</li> <li>→ Lack of previous physical examination in well-appearing person</li> <li>→ Current antimicrobial therapy<sup>2</sup></li> <li>→ Convalescent phase of illness</li> <li>→ Preterm birth (hepatitis B vaccine is an exception in certain circumstances)<sup>3</sup></li> <li>→ Recent exposure to an infectious disease</li> <li>→ History of penicillin allergy, other non-vaccine allergies, relatives with allergies, receiving allergen extract immunotherapy</li> <li>→ Breast feeding</li> </ul>
<b>DTaP</b> diphtheria and tetanus toxoids and acellular pertussis vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Encephalopathy (e.g., coma, decreased level of consciousness, and prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP</li> <li>→ Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy. Defer DTaP until neurologic status clarified and stabilized</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Temperature of <math>\geq 105^{\circ}\text{F}</math> (<math>\geq 40.5^{\circ}\text{C}</math>) for <math>\leq 48</math> hours after vaccination with a previous dose of DTP or DTaP</li> <li>→ Collapse or shock-like state (i.e., hypotonic hyporesponsive episode) <math>\leq 48</math> hours after receiving a previous dose of DTP/DTaP</li> <li>→ Seizure <math>\leq 3</math> days after receiving a previous dose of DTP/DTaP<sup>4</sup></li> <li>→ Persistent, inconsolable crying lasting <math>\geq 3</math> hours within 48 hours receiving a previous dose of DTP/DTaP</li> <li>→ Guillain-Barré syndrome (GBS) <math>&lt; 6</math> weeks after previous dose of tetanus toxoid-containing vaccine</li> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Temperature of <math>\leq 104^{\circ}\text{F}</math> (<math>&lt; 40.5^{\circ}\text{C}</math>), fussiness, or mild drowsiness after a previous dose of diphtheria toxoid-tetanus toxoid-pertussis vaccine (DTP/DTaP)</li> <li>→ Family history of seizures<sup>4</sup></li> <li>→ Family history of sudden infant death syndrome</li> <li>→ Family history of an adverse event after DTP or DTaP administration</li> <li>→ Stable neurologic conditions (e.g., cerebral palsy, well-controlled seizure disorder, developmental delay)</li> </ul>
<b>DT, Td</b> pediatric diphtheria-tetanus toxoid (DT) adult tetanus-diphtheria toxoid (Td)	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ GBS <math>&lt; 6</math> weeks after previous dose of tetanus toxoid-containing vaccine</li> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	
<b>Tdap</b> tetanus-reduced-diphtheria toxoid and acellular pertussis vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Encephalopathy (e.g., coma, decreased level of consciousness, and prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP, DTaP, or Tdap</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> <li>→ GBS <math>\leq 6</math> weeks after previous dose of tetanus toxoid-containing vaccine</li> <li>→ Progressive or unstable neurological disorder, uncontrolled seizures or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized</li> <li>→ History of arthus-type hypersensitivity reactions following a previous dose of tetanus toxoid-containing vaccine. Defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine</li> <li>→ Pregnancy and breastfeeding - Physician and patient should discuss prior to administering vaccine</li> </ul>	<ul style="list-style-type: none"> <li>→ Temperature of <math>&gt; 104^{\circ}\text{F}</math> (<math>&gt; 40.5^{\circ}\text{C}</math>) for <math>\leq 48</math> hours after vaccination with a previous dose of DTP or DTaP</li> <li>→ Collapse or shock-like state (i.e., hypotonic hyporesponsive episode) <math>\leq 48</math> hours after receiving a previous dose of DTP/DTaP</li> <li>→ Seizure <math>\leq 3</math> days after receiving a previous dose of DTP/DTaP<sup>4</sup></li> <li>→ Persistent, inconsolable crying lasting <math>\geq 3</math> hours within 48 hours after receiving a previous dose of DTP/DTaP</li> <li>→ History of extensive limb swelling after DTP/DTaP/Td that is not an arthus-type reaction</li> <li>→ Stable neurologic disorder → Breast feeding</li> <li>→ Brachial neuritis → Immunosuppression</li> <li>→ Latex allergy that is not anaphylactic</li> </ul>
<b>IPV</b> inactivated poliovirus vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Pregnancy → Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Previous receipt of one or more doses of oral polio vaccine</li> </ul>
<b>MMR<sup>5</sup></b> measles-mumps-rubella vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Pregnancy</li> <li>→ Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy;<sup>6</sup> or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised)</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Recent (<math>\leq 11</math> months) receipt of antibody-containing blood product (specific interval depends on product)<sup>8</sup></li> <li>→ History of thrombocytopenia or thrombocytopenic purpura</li> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Positive tuberculin skin test</li> <li>→ Simultaneous tuberculosis skin testing<sup>7</sup></li> <li>→ Breast feeding</li> <li>→ Pregnancy of recipient's mother or other close or household contact</li> <li>→ Recipient is childbearing-age female</li> <li>→ Immunodeficient family member or household contact</li> <li>→ Asymptomatic or mildly symptomatic HIV infection</li> <li>→ Allergy to eggs</li> </ul>
<b>Hib</b> <i>Haemophilus influenzae</i> type b vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Aged <math>&lt; 6</math> weeks</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	
<b>Hepatitis B</b> hepatitis B vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Infant weighing <math>&lt; 2000\text{ g}</math><sup>3</sup> → Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Pregnancy</li> <li>→ Autoimmune disease (e.g., systemic lupus erythematosus or rheumatoid arthritis)</li> </ul>
<b>Hepatitis A</b> hepatitis A vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Pregnancy → Moderate or severe acute illness with or without fever</li> </ul>	
<b>Varicella</b> varicella vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Substantial suppression of cellular immunity → Pregnancy</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Recent (<math>\leq 11</math> months) receipt of antibody-containing blood product (specific interval depends on product)<sup>8</sup></li> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Pregnancy of recipient's mother or other close or household contact</li> <li>→ Immunodeficient family member or household contact<sup>9</sup></li> <li>→ Asymptomatic or mildly symptomatic HIV infection</li> <li>→ Humoral immunodeficiency (e.g., agammaglobulinemia)<sup>10</sup></li> </ul>
<b>PCV</b> pneumococcal conjugate vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	
<b>TIV</b> trivalent inactivated influenza vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ Non-severe (e.g., contact) allergy to latex or thimerosal</li> <li>→ Concurrent administration of coumadin or aminophylline</li> </ul>
<b>LAIV</b> live-attenuated influenza vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Pregnancy</li> <li>→ Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy;<sup>6</sup> or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised)</li> <li>→ Previous history of GBS → Certain chronic medical conditions<sup>11</sup></li> <li>→ Persons aged <math>&lt; 2</math> years or those aged <math>\geq 50</math> years → Children or adolescents receiving aspirin or other salicylates</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	
<b>PPV</b> pneumococcal polysaccharide vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	<ul style="list-style-type: none"> <li>→ History of invasive pneumococcal disease or pneumonia</li> </ul>
<b>MCV4</b> meningococcal conjugate vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> <li>→ History of Guillain-Barré syndrome (if not at high risk for meningococcal disease)</li> </ul>	
<b>MPSV4</b> meningococcal polysaccharide vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	
<b>HPV</b> human papillomavirus vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever → Pregnancy</li> </ul>	
<b>Rotavirus</b> rotavirus vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Receipt of an antibody-containing blood product within 6 weeks<sup>12</sup></li> <li>→ Moderate or severe acute illness with or without fever → Immunosuppression</li> <li>→ Pre-existing gastrointestinal disease → Previous history of intussusception</li> </ul>	<ul style="list-style-type: none"> <li>→ Preterm births</li> <li>→ Immunosuppression in household contacts</li> <li>→ Pregnant household contacts</li> </ul>
<b>HZ</b> herpes zoster vaccine	<ul style="list-style-type: none"> <li>→ Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component</li> <li>→ Known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy<sup>6</sup> or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised)</li> <li>→ With active untreated tuberculosis → Pregnancy</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>→ Moderate or severe acute illness with or without fever</li> </ul>	

1. Events or conditions listed as precautions should be reviewed carefully. Benefits of and risks for administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered. Whether and when to administer DTaP to children with proven or suspected underlying neurologic disorders should be decided on a case-by-case basis.

2. Antibacterial drugs and mefloquine might interfere with Ty21a oral typhoid vaccine, and certain antiviral drugs might interfere with varicella-containing and live-attenuated influenza virus vaccine.  
3. Hepatitis B vaccination should be deferred for infants weighing  $< 2000\text{ g}$  if the mother is documented to be hepatitis B surface antigen (HBsAg)-negative at the time of the infant's birth. Vaccination can commence at chronological age 1 month. For infants born to HBsAg-positive women, hepatitis B immunoglobulin and hepatitis B vaccine should be administered at or soon after birth, regardless of weight.

4. Acetaminophen or other appropriate antipyretic can be administered to infants and children with a history of previous seizures at the time of DTaP vaccination and every 4 hours for 24 hours thereafter to reduce the possibility of postvaccination fever (Source: American Academy of Pediatrics. Active Immunization. In Pickering LK, Baker CJ, Long SS, McMillan J, eds. 2006 Red Book: Report of the Committee on Infectious Diseases. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2006).

5. MMR and varicella vaccines can be administered on the same day. If not administered on the same day, these vaccines should be separated by at least 28 days.  
6. Substantially immunosuppressive steroid dose is considered to be  $\geq 2$  weeks of daily receipt of  $\geq 20\text{ mg}$  or  $\geq 2\text{ mg/kg}$  body weight of prednisone or equivalent.  
7. Measles vaccination might suppress tuberculin reactivity temporarily. Measles-containing vaccine can be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for  $\geq 4$  weeks after

the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.  
8. For details, see CDC. General Recommendations on Immunization; Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR July 13, 2007/56(RR-06): 1-54.  
9. If a vaccinee experiences a presumed vaccine-related rash 7-25 days after vaccination, avoid direct contact with immunocompromised persons for the duration of the rash, if possible.  
10. Vaccine should be deferred for the appropriate interval if replacement IG products are being administered.

11. For details, see CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR July 13, 2007/56(RR-06): 1-54.  
12. Rotavirus vaccine (RV) should be deferred for 6 weeks after receipt of an antibody-containing product if possible. However, if the 6-week deferral would cause the first dose of RV to be scheduled for age  $\geq 13$  weeks, a shorter deferral interval should be used to ensure the first dose of RV is administered no later than age 13 weeks.