

Guide to Contraindications and Precautions to Commonly Used Vaccines

Make sure you are aware of all possible contraindications and precautions for health conditions that might preclude a particular vaccine. Also, don't miss opportunities to vaccinate because of misperceptions of a contraindication or precaution. Remember to screen patients each time you vaccinate because responses to the questions may change.

| Vaccine | True Contraindications and Precautions | Not True (give vaccines) |
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| Diphtheria, tetanus, pertussis (DTaP) | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) without an identified cause within 7 days of administration of prior dose of DTP or DTaP <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Fever of 105°F or greater (40.5°C or greater) within 48 hours after a previous dose of DTP or DTaP Progressive neurological disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy: defer DTaP until neurologic status clarified and stabilized Collapse or shock-like state (hypotonic hypo-responsive episode) within 48 hours of receiving a previous dose of DTP/DTaP Seizure within 3 days of receiving a previous dose of DTP/DTaP Persistent, inconsolable crying lasting 3 hours or more within 48 hours after receiving a previous dose of DTP/DTaP Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus toxoid-containing vaccine History of arthus-type reaction following a previous dose of tetanus-toxoid containing vaccine; defer until at least 10 years from previous dose (Arthus-type reactions are rare in childhood DTaP series.) | <ul style="list-style-type: none"> Temperature less than 105°F or 40.5°C within 48 hours of receiving DTaP or DTP Fussiness or mild drowsiness after a previous dose of DTP/DTaP Family history of seizures Family history of sudden infant death syndrome Family history of an adverse event after DTP or DTaP administration Stable neurological conditions (e.g., cerebral palsy, well controlled convulsions, developmental delay) |
| Diphtheria, tetanus, (DT and Td) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus toxoid-containing vaccine History of Arthus-type reaction following a previous dose of tetanus-toxoid containing vaccine; defer until at least 10 years from previous dose | |
| Tetanus, diphtheria, pertussis (Tdap) | <ul style="list-style-type: none"> See page 3, tetanus, diphtheria, pertussis (Tdap) | |
| Haemophilus influenzae type B (Hib) | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components Age less than 6 weeks <p>Precaution:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever | |
| Hepatitis A (HepA) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy | |
| Hepatitis B (HepB) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Infant weighing less than 2000 grams¹ | <ul style="list-style-type: none"> Pregnancy Autoimmune disease (e.g., systemic lupus erythematosus, rheumatoid arthritis) |

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| Human Papillomavirus (HPV2, HPV4) | Contraindication: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components <hr/> Precautions: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy | <ul style="list-style-type: none"> Previous HPV infection² Immunosuppression Breastfeeding History of genital warts Previous questionable or abnormal PAP test |
| Inactivated polio vaccine (IPV) | Contraindication: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to previous dose or to a vaccine component <hr/> Precautions: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy | <ul style="list-style-type: none"> Previous receipt of oral polio vaccine (OPV) |
| Influenza, injected trivalent (TIV) | Contraindication: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to previous dose or to a vaccine component, including egg protein in some instances³ <hr/> Precautions: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of influenza vaccine | <ul style="list-style-type: none"> Non-systemic allergy to latex, thimerosal, or egg Current administration of coumadin (warfarin) or aminophylline |
| Influenza, live attenuated (LAIV)⁴ | Contraindications: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to previous dose or to a vaccine component, including egg protein Aspirin therapy in children and adolescents Known severe immunodeficiency (e.g., hematologic and solid tumors, congenital immunodeficiency, long term immunosuppressive therapy⁵ including chemotherapy, severely symptomatic HIV infection) Pregnancy <hr/> Precaution: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Children with recurrent wheezing or asthma Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of influenza vaccine Persons with chronic medical conditions for which yearly influenza vaccination is recommended should not receive LAIV Receipt of specific influenza antivirals (i.e., amantadine, rimantadine, or oseltamivir, or zanamivir) 48 hours before vaccination; if possible delay resumption of these antiviral drugs for 14 days after vaccination. | <ul style="list-style-type: none"> Immunodeficient family member or household contact Pregnant or breastfeeding family member or household contact Breastfeeding Health care workers (those that care for patients in protective isolation should receive a TIV or defer care for 7 days following LAIV) Contacts of persons with chronic medical conditions |
| Measles, mumps, rubella (MMR)⁴ | Contraindications: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Known severe immunodeficiency (e.g., hematologic and solid tumors, congenital immunodeficiency, long term immunosuppressive therapy⁵ including chemotherapy, severely symptomatic HIV infection⁶) Within 24 months of a hematopoietic stem cell transplant (HSCT) Pregnancy <hr/> Precautions: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁷ History of thrombocytopenia or thrombocytopenic purpura | <ul style="list-style-type: none"> Positive tuberculin skin test Simultaneous TB skin testing⁸ Breastfeeding Pregnancy of recipient's mother or other close or household contact Recipient is female of childbearing-age Immunodeficient family member or household contact Asymptomatic or mildly symptomatic HIV infection⁶ Allergy to eggs Receipt of RSV monoclonal antibody (Synagis) |
| Measles, mumps, rubella, varicella (MMRV)⁴ | Contraindications: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Known severe immunodeficiency (e.g., hematologic and solid tumors, congenital immunodeficiency, long term immunosuppressive therapy⁵ including chemotherapy, severely symptomatic HIV infection⁶) Within 24 months of a hematopoietic stem cell transplant (HSCT) Pregnancy <hr/> Precautions: <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Personal or family history of seizures Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁷ History of thrombocytopenia or thrombocytopenic purpura Receipt of specific antivirals (i.e., acyclovir or valacyclovir) 24 hours before vaccination; if possible delay resumption of these antiviral drugs for 14 days after vaccination. | <ul style="list-style-type: none"> Positive tuberculin skin test Simultaneous TB skin testing⁸ Breastfeeding Pregnancy of recipient's mother or other close or household contact Recipient is female of childbearing-age Immunodeficient family member or household contact⁹ Asymptomatic or mildly symptomatic HIV infection⁶ Allergy to eggs Receipt of RSV monoclonal antibody (Synagis) |

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| Meningococcal, conjugate (MCV) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component <p>Precaution:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever | <ul style="list-style-type: none"> History of Guillain-Barré syndrome (GBS) |
| Meningococcal, polysaccharide (MPSV) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component <p>Precaution:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever | |
| Pneumococcal, conjugate (PCV) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose of PCV7, PCV13 or any diphtheria containing vaccine or to their vaccine components <p>Precaution:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever | |
| Pneumococcal, polysaccharide (PPSV) | <p>Contraindication:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component <p>Precaution:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever | <ul style="list-style-type: none"> History of pneumonia or previous invasive pneumococcal disease |
| Rotavirus (RV1, RV5) | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components Severe Combined Immunodeficiency (SCID) <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Chronic gastrointestinal disease Altered immunocompetence other than SCID History of intussusception Infants with spina bifida or bladder exstrophy (RV1 only) | <ul style="list-style-type: none"> Immunodeficient family member or household contact Mild diarrheal disease Prematurity Pregnant family member or household contact Receipt of RSV monoclonal antibody (Synagis) |
| Tetanus, diphtheria (Td) | <ul style="list-style-type: none"> See page 1, diphtheria, tetanus, (DT and Td) | |
| Tetanus, diphtheria, pertussis (Tdap) | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) without an identified cause within 7 days of administration of prior dose of DTP, DTaP, or Tdap <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe illness with or without fever Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus toxoid-containing vaccine Progressive or unstable neurologic disorder, uncontrolled seizures or progressive neuropathy until stabilized History of Arthus-type reaction following a previous dose of tetanus-toxoid containing vaccine; defer until at least 10 years from previous dose | <ul style="list-style-type: none"> Less than 10 years since previous dose of Td Temperature less than 105°F or 40.5°C within 48 hours of receiving DTaP or DTP Collapse or shock within 48 hours of receiving DTaP or DTP Persistent, inconsolable crying lasting more than 3 hours within 48 hours of receiving DTaP or DTP History of severe limb swelling after receiving DTaP or DTP Stable neurological conditions (e.g., cerebral palsy, well controlled convulsions, developmental delay) History of bronchial neuritis Non-systemic allergy to latex Immunosuppression Breastfeeding |
| Varicella (VAR)⁴ | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Known severe immunodeficiency (e.g., hematologic and solid tumors, congenital immunodeficiency, long term immunosuppressive therapy⁵ including chemotherapy, severely symptomatic HIV infection⁶) Within 24 months of a hematopoietic stem cell transplant (HSCT)¹⁰ Pregnancy <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)⁷ Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination. | <ul style="list-style-type: none"> Pregnancy of recipient's mother or other close or household contact Immunodeficient family member or household contact⁹ Asymptomatic or mildly symptomatic HIV infection⁶ Humoral immunodeficiency (e.g., agammaglobulinemia) Receipt of RSV monoclonal antibody (Synagis) |

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|---------------------------------|--|---|
| Zoster (ZOS)⁴ | <p>Contraindications:</p> <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to their vaccine components Primary or acquired immunodeficiency (e.g., leukemia, lymphoma, AIDS or symptomatic HIV, long term immunosuppressive therapy⁵, receiving chemotherapy for malignancy, undergoing stem-cell transplantation, receiving immune mediators or modulators) Pregnancy <p>Precautions:</p> <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Receipt of specific antivirals (i.e., acyclovir or valacyclovir) 24 hours before vaccination, if possible; delay resumption of these antiviral drugs for 14 days after vaccination. | <ul style="list-style-type: none"> Short-term, low-dose, or local (e.g., topical or non-systemic administration) corticosteroid therapy⁵ Receipt of blood products History of zoster not a consideration for vaccination Contacts of patients with chronic diseases or altered immunocompetence Low-dose treatment for rheumatoid arthritis, psoriasis, polymyositis, sarcoidosis, inflammatory bowel disease, or other conditions¹¹ |

What is a contraindication? A contraindication to a vaccine is a condition in a patient that greatly increases the chance of a serious adverse reaction. Generally, a vaccine should not be given if someone has a contraindication to that vaccine.

Permanent contraindications to vaccine and for which specific vaccines should not be given:

- A history of a severe allergic reaction (e.g., anaphylaxis) to a previous dose of a specific vaccine or a component of that vaccine
- Specific to DTaP or Tdap: encephalopathy without a known cause occurring within seven days of a dose of any pertussis-containing vaccine is a permanent contraindication for DTaP or Tdap

What is a severe allergic reaction (e.g., anaphylaxis)? Sudden or gradual onset of generalized itching, redness, or hives; swelling of the lips, face, or throat; bronchospasm (wheezing); shortness of breath; shock; abdominal cramping; or cardiovascular collapse.

There are two temporary contraindications to live attenuated viral vaccines where vaccines should be given after these temporary conditions no longer exist:

- Immunosuppression (in most cases)
- Pregnancy

The following are NOT a contraindication or precaution to administration of any vaccine. Give vaccines:

- Mild acute illness with or without fever
- Mild to moderate local reaction (swelling, redness, soreness); fever less than 105°F or 40.5°C after prior dose
- Lack of prior physical examination in well-appearing person
- On antibiotics
- Convalescent phase of illness

- Premature birth (hepatitis B vaccine is an exception in certain circumstances)¹
- Recent exposure to an infectious disease
- Allergy to products not in the vaccine

What is a local allergy reaction? Onset of itching or swelling localized to the injection site or site of exposure. Usually not a contraindication to vaccination.

What is a precaution? A precaution is a condition in a patient that may increase the chance of a serious adverse reaction if vaccine is given, or may compromise the ability of the vaccine to produce immunity. Under normal circumstances, vaccines should be deferred when a permanent or temporary precaution exists, but sometimes the benefits outweigh the risks.

There are two common temporary precautions to vaccines:

- Moderate or severe acute illness (a precaution that applies to all vaccines)
- Recent receipt of an antibody-containing blood product such as immune globulin (e.g., MMR, MMRV, and varicella)

When to give a vaccine despite a precaution: In general, when a precaution exists, a dose of vaccine is not recommended. However, there may be situations when the benefit of vaccine outweighs the risk, and the provider may choose to give the vaccine. For example, a fever of 105°F / 40.5°C or greater within 48 hours after a previous dose of DTP or DTaP vaccine is considered a precaution to giving subsequent doses of pertussis vaccine to a child. But, if the child were at high risk of pertussis infection (e.g., a pertussis outbreak in the community), a provider may choose to vaccinate the child and treat the adverse reaction if it occurs.

Footnotes

- Defer **hepatitis B** vaccination for infants weighing less than 2,000 grams if the mother is documented to be HBsAg negative at the time of the infant's birth. Start vaccinating these infants at age 1 month (28 days). For infants born to HBsAg-positive women, give HBIG and hepatitis B vaccine within 12 hours of birth regardless of weight and give 3 additional doses starting at 28 days and using a 0, 1-2, 6 month interval schedule.
- Unvaccinated sexually active women and those with a previous **HPV** infection may not receive the full benefit of the vaccine if they were already infected with an HPV type found in the vaccine.
- Persons that can ingest lightly cooked egg (e.g., scrambled) may receive TIV. Persons whose reaction is hives may receive TIV, however, they should be monitored for 30 minutes after vaccine administration (providers should have necessary equipment to respond to anaphylactic reactions). Persons who have reactions to egg that involve symptoms other than hives, such as angioedema, respiratory distress, light-headedness, or recurrent vomiting; or who required emergency medical care are more likely to experience serious side effects to egg proteins. Prior to receiving vaccine, these people should be referred to a health care provider with expertise in the management of allergic conditions for further risk assessment. See August 26, 2011 *MMWR* at www.cdc.gov/vaccines/pubs/ACIP-List.htm.
- Live virus vaccines** can be given at the same visit. However, if not given at the same visit, they should be separated by at least 28 days.
- Immunosuppressive steroid dose** is defined as 2 weeks or more of 20 mg/day or 2 mg/kg/day or more of prednisone or equivalent. **Non-immunosuppressive steroid dose** is defined as either short-term (less than 2 weeks) or low-to-moderate dose (less than 20 mg/day or less than 2 mg/kg/day) of prednisone or equivalent.
- HIV-infected children** may receive MMR and varicella vaccines if their CD4 T-lymphocyte count is greater than 15 percent.
- For details on receipt of **antibody-containing blood product** see page 39 of ACIP's General Recommendations on Immunization in the January 28, 2011 *MMWR* at www.cdc.gov/vaccines/pubs/ACIP-List.htm.
- Vaccination with **measles-containing vaccine** can temporarily suppress tuberculin reactivity. However, measles-containing vaccine can be given on the same day as tuberculin skin testing. If not done on the same day postpone the skin test for 4 or more weeks after the vaccination. If the skin test is urgent do it with the understanding that the vaccine might reduce reactivity.
- If a patient develops a presumed vaccine-related rash 7-25 days after receiving **varicella-containing vaccine**, they should avoid direct contact with immunocompromised persons for the duration of the rash.
- Providers should **assess immune status and risk of varicella** on a case by case basis to determine need for vaccine before 24 months.
- Low dose treatment** is defined as 0.4 mg/kg/week or less of methotrexate, 0.3 mg/kg/day or less of azathioprine, or 1.5 mg/kg/day or less of 6-mercaptopurine.