

Colorado Immunization Manual

SECTION 13 Contraindications



Colorado Immunization Manual

ISSUED: 9/1/98

REVISED: 5/1/11

SECTION-PAGE: 13-1

SUBJECT: CONTENTS

SECTION 13 Contraindications

CONTENTS

Guide to Contraindications and Precautions to Commonly Used Vaccines	13-2
Vaccine Components: Vaccine Excipient & Media Summary, Part 2 Excipients Included in U.S. Vaccines, by Vaccine	13-7
Vaccine Components: Latex in Vaccine Packaging	13-11



Guide to Contraindications and Precautions¹ to Commonly Used Vaccines* (Page 1 of 2)

Vaccine	Contraindications	Precautions ¹
Hepatitis B (HepB)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Infant weighing less than 2000 grams (4 lbs, 6.4 oz)²
Rotavirus (RV5 [RotaTeq], RV1 [Rotarix])	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Severe combined immunodeficiency (SCID) 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Altered immunocompetence other than SCID History of intussusception Chronic gastrointestinal disease³ Spina bifida or bladder exstrophy³
Diphtheria, tetanus, pertussis (DTaP) Tetanus, diphtheria, pertussis (Tdap)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP (for DTaP); or of previous dose of DTP, DTaP, or Tdap (for Tdap) 	<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 hypersensitivity reactions after a previous dose of tetanus toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine Progressive or unstable neurologic disorder (including infantile spasms for DTaP), uncontrolled seizures, or progressive encephalopathy; defer vaccination with DTaP or Tdap until a treatment regimen has been established and the condition has stabilized <p>For DTaP only:</p> <ul style="list-style-type: none"> Temperature of 105° F or higher (40.5° C or higher) within 48 hours after vaccination with a previous dose of DTP/DTaP Collapse or shock-like state (i.e., hypotonic hyporesponsive episode) within 48 hours after receiving a previous dose of DTP/DTaP Seizure within 3 days after receiving a previous dose of DTP/DTaP Persistent, inconsolable crying lasting 3 or more hours within 48 hours after receiving a previous dose of DTP/DTaP
Tetanus, diphtheria (DT, Td)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever GBS within 6 weeks after a previous dose of tetanus toxoid-containing vaccine History of arthus-type hypersensitivity reactions after a previous dose of tetanus toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
Haemophilus influenzae type b (Hib)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Age younger than 6 weeks 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Inactivated poliovirus vaccine (IPV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy
Pneumococcal (PCV or PPSV)	<ul style="list-style-type: none"> For PCV13, severe allergic reaction (e.g., anaphylaxis) after a previous dose (of PCV7, PCV13, or any diphtheria toxoid-containing vaccine) or to a vaccine component (of PCV7, PCV13, or any diphtheria toxoid-containing vaccine) For PPSV, severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR)⁴	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Pregnancy Known severe immunodeficiency (e.g., from hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; or long-term immunosuppressive therapy⁵; or patients with HIV infection who are severely immunocompromised)⁶ 	<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 Need for tuberculin skin testing⁸

Vaccine	Contraindications	Precautions ¹
Varicella (Var)⁴	<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., from hematologic and solid tumors, receiving chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy⁵ or patients with HIV infection who are severely immunocompromised)⁶ Pregnancy 	<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.
Hepatitis A (HepA)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy
Influenza, injectable trivalent (TIV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including egg protein 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever History of GBS within 6 weeks of previous influenza vaccine
Influenza, live attenuated (LAIV)⁴	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including egg protein Possible reactive airways disease in a child age 2 through 4 years (e.g., history of recurrent wheezing or a recent wheezing episode) Pregnancy Immunosuppression Certain chronic medical conditions⁹ 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever History of GBS within 6 weeks of previous influenza vaccine Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.
Human papilloma-virus (HPV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy
Meningococcal, conjugate (MCV4) Meningococcal, polysaccharide (MPSV4)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Zoster (Zos)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Substantial suppression of cellular immunity Pregnancy 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever 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.

Footnotes

- 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.
- Hepatitis B vaccination should be deferred for preterm infants and infants weighing less than 2000 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 or at hospital discharge. For infants born to women who are HBsAg-positive, hepatitis B immunoglobulin and hepatitis B vaccine should be administered within 12 hours of birth, regardless of weight.
- For details, see CDC. "Prevention of Rotavirus Gastroenteritis among Infants and Children: Recommendations of the Advisory Committee on Immunization Practices. (ACIP)" *MMWR* 2009;58(No. RR-2) at www.cdc.gov/vaccines/pubs/acip-list.htm.
- LAIV, 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.
- Substantially immunosuppressive steroid dose is considered to be 2 weeks or more of daily receipt of 20 mg (or 2 mg/kg body weight) of prednisone or equivalent.
- HIV-infected children may receive varicella and measles vaccine if CD4+ T-lymphocyte count is >15%. (Source: Adapted from American Academy of Pediatrics. Passive Immunization. In: Pickering LK, ed. *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics: 2009.)
- Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered (see Table 5 in CDC. "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)" at www.cdc.gov/vaccines/pubs/acip-list.htm.)
- 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 at least 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.
- For details, see CDC. "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010" at www.cdc.gov/vaccines/pubs/acip-list.htm.

Contraindications and precautions* to commonly used vaccines

Vaccine	Contraindications	Precautions
DTaP	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP or DTaP	Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized Temperature of $\geq 105^{\circ}\text{F}$ ($\geq 40.5^{\circ}\text{C}$) within 48 hours after vaccination with a previous dose of DTP or DTaP Collapse or shock-like state (i.e., hypotonic hyporesponsive episode) within 48 hours after receiving a previous dose of DTP/DTaP Seizure ≤ 3 days after receiving a previous dose of DTP/DTaP Persistent, inconsolable crying lasting ≥ 3 hours within 48 hours after receiving a previous dose of DTP/DTaP GBS < 6 weeks after previous dose of tetanus toxoid-containing vaccine History of arthus-type hypersensitivity reactions after a previous dose of tetanus toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine Moderate or severe acute illness with or without fever
DT, Td	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	GBS < 6 weeks after previous dose of tetanus toxoid-containing vaccine History of arthus-type hypersensitivity reactions after a previous dose of tetanus toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine Moderate or severe acute illness with or without fever
Tdap	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap	GBS < 6 weeks after a previous dose of tetanus toxoid-containing vaccine Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized History of arthus-type hypersensitivity reactions after a previous dose of tetanus toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine Moderate or severe acute illness with or without fever
IPV	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Pregnancy Moderate or severe acute illness with or without fever
MMR ^{†,§}	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Pregnancy Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy [¶] or patients with HIV infection who are severely immunocompromised) [§]	Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product) ^{**} History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing ^{††} Moderate or severe acute illness with or without fever
Hib	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Age < 6 weeks	Moderate or severe acute illness with or without fever
Hepatitis B	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Infant weight $< 2,000$ gm ^{§§} Moderate or severe acute illness with or without fever
Hepatitis A	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Pregnancy Moderate or severe acute illness with or without fever
Varicella	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Known severe immunodeficiency (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy [¶] or patients with HIV infection who are severely immunocompromised) [§] Pregnancy	Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product) ^{¶¶} Moderate or severe acute illness with or without fever

See footnotes following table

(continues)

Contraindications and precautions* to commonly used vaccines (continued)

Vaccine	Contraindications	Precautions
PCV	Severe allergic reaction (e.g., anaphylaxis) after a previous dose (of PCV7, PCV13, or any diphtheria toxoid-containing vaccine) or to a component of a vaccine (PCV7, PCV13, or any diphtheria toxoid-containing vaccine)	Moderate or severe acute illness with or without fever
TIV	Severe allergic reaction (e.g., anaphylaxis) after previous dose or to vaccine component, including egg protein	GBS <6 weeks after a previous dose of influenza vaccine Moderate or severe acute illness with or without fever
LAIV	Severe allergic reaction (e.g., anaphylaxis) after previous dose or to vaccine component, including egg protein Pregnancy Immunosuppression Certain chronic medical conditions***	GBS <6 weeks after a previous dose of influenza vaccine Moderate or severe acute illness with or without fever
PPSV	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
MCV4	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
MPSV4	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Moderate or severe acute illness with or without fever
HPV	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	Pregnancy Moderate or severe acute illness with or without fever
Rotavirus	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component SCID	Altered immunocompetence other than SCID History of intussusception Chronic gastrointestinal disease††† Spina bifida or bladder exstrophy††† Moderate or severe acute illness with or without fever
Zoster	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Substantial suppression of cellular immunity Pregnancy	Moderate or severe acute illness with or without fever

Abbreviations: DT = diphtheria and tetanus toxoids; DTaP = diphtheria and tetanus toxoids and acellular pertussis; GBS = Guillain-Barré syndrome; HBsAg = hepatitis B surface antigen; Hib = Haemophilus influenzae type b; HIV = human immunodeficiency virus; HPV = human papillomavirus; IPV = inactivated poliovirus; LAIV = live, attenuated influenza vaccine; MCV4 = quadrivalent meningococcal conjugate vaccine; MMRV = measles, mumps, rubella, and varicella; MPSV4 = quadrivalent meningococcal polysaccharide vaccine; PCV = pneumococcal conjugate vaccine; PPSV = pneumococcal polysaccharide vaccine; SCID = severe combined immunodeficiency; Td = tetanus and diphtheria toxoids; Tdap = tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis; TIV = trivalent inactivated influenza vaccine.

* 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.

† HIV-infected children may receive varicella and measles vaccine if CD4+ T-lymphocyte count is >15%. (Source: Adapted from American Academy of Pediatrics. Passive immunization. In: Pickering LK, ed. Red book: 2009 report of the committee on infectious diseases. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2009.)

§ 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.

¶ Substantially immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg or 2 mg/kg body weight of prednisone or equivalent.

** See text and Table 5 for details.

†† 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 ≥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.

§§ Hepatitis B vaccination should be deferred for infants weighing <2,000 g if the mother is documented to be HBsAg-negative at the time of the infant's birth. Vaccination can commence at chronological age 1 month or at hospital discharge. For infants born to HBsAg-positive women, hepatitis B immune globulin and hepatitis B vaccine should be administered within 12 hours after birth, regardless of weight.

¶¶ Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered (see Table 5).

*** **Source:** CDC. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR 2010;59(No. RR-8).

††† For details, see CDC. Prevention of rotavirus gastroenteritis among infants and children: recommendations of the Advisory Committee on Immunization Practices. MMWR 2009;58(No. RR-2).

Guide to Contraindications and Precautions¹ to Commonly Used Vaccines in Adults*

Vaccine	Contraindications	Precautions ¹
Tetanus, diphtheria, pertussis (Tdap) Tetanus, diphtheria (Td)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap 	<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 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 For Tdap only: Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy; defer vaccination with Tdap until a treatment regimen has been established and the condition has stabilized
Human papilloma-virus (HPV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy
Measles, mumps, rubella (MMR)²	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Pregnancy Known severe immunodeficiency (e.g., from hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy³; or patients with HIV infection who are severely immunocompromised) 	<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 product⁴) History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing⁵
Varicella (Var)²	<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., from hematologic and solid tumors, receiving chemotherapy, congenital immunodeficiency or long-term immunosuppressive therapy³ or patients with HIV infection who are severely immunocompromised) Pregnancy 	<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 product⁴) 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
Influenza, injectable trivalent (TIV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including egg protein 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever History of GBS within 6 wks of previous influenza vaccine
Influenza, live attenuated (LAIV)²	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including egg protein Pregnancy Immunosuppression Certain chronic medical conditions⁶ 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever History of GBS within 6 wks of previous influenza vaccine Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
Pneumococcal polysaccharide (PPSV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Hepatitis A (HepA)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever Pregnancy
Hepatitis B (HepB)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Meningococcal, conjugate (MCV4) Meningococcal, polysaccharide (MPSV4)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Zoster (Zos)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component Substantial suppression of cellular immunity Pregnancy 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever 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

Footnotes

- 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.
- LAIV, 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.
- Substantially immunosuppressive steroid dose is considered to be 2 weeks or more of daily receipt of 20 mg (or 2 mg/kg body weight) of prednisone or equivalent.
- Vaccine should be deferred for the appropriate interval if replacement immune globulin

products are being administered (see Table 5 in CDC. "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices [ACIP]" at www.cdc.gov/vaccines/pubs/acip-list.htm).

- 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 at least 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.
- For details, see CDC. "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010" at www.cdc.gov/vaccines/pubs/acip-list.htm.

*Adapted from "Table 6. Contraindications and Precautions to Commonly Used Vaccines," found in: CDC. "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices." *MMWR* 2011; 60(No. RR-2), p.40-41.

Vaccine Excipient & Media Summary, Part 2

Excipients Included in U.S. Vaccines, by Vaccine

Includes vaccine ingredients (e.g., adjuvants and preservatives) as well as substances used during the manufacturing process, including vaccine-production media, that are removed from the final product and present only in trace quantities.
In addition to the substances listed, most vaccines contain Sodium Chloride (table salt).

Vaccine	Contains
Anthrax (BioThrax)	Aluminum Hydroxide, Amino Acids, Benzethonium Chloride, Formaldehyde or Formalin, Inorganic Salts and Sugars, Vitamins
BCG (Tice)	Asparagine, Citric Acid, Lactose, Glycerin, Iron Ammonium Citrate, Magnesium Sulfate, Potassium Phosphate
DTaP (Daptacel)	Aluminum Phosphate, Ammonium Sulfate, Casamino Acid, Dimethyl-beta-cyclodextrin, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol
DTaP (Infanrix)	Aluminum Hydroxide, Bovine Extract, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol, Polysorbate 80
DTaP (Tripedia)	Aluminum Potassium Sulfate, Ammonium Sulfate, Bovine Extract, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Sodium Phosphate, Thimerosal*
DTaP/Hib (TriHIBit)	Aluminum Potassium Sulfate, Ammonium Sulfate, Bovine Extract, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Sucrose, Thimerosal*
DTaP-IPV (Kinrix)	Aluminum Hydroxide, Bovine Extract, Formaldehyde, Lactalbumin Hydrolysate, Monkey Kidney Tissue, Neomycin Sulfate, Polymyxin B, Polysorbate 80
DTaP-HepB-IPV (Pediatrix)	Aluminum Hydroxide, Aluminum Phosphate, Bovine Protein, Lactalbumin Hydrolysate, Formaldehyde or Formalin, Glutaraldehyde, Monkey Kidney Tissue, Neomycin, 2-Phenoxyethanol, Polymyxin B, Polysorbate 80, Yeast Protein
DtaP-IPV/Hib (Pentacel)	Aluminum Phosphate, Bovine Serum Albumin, Formaldehyde, Glutaraldehyde, MRC-5 DNA and Cellular Protein, Neomycin, Polymyxin B Sulfate, Polysorbate 80, 2-Phenoxyethanol,
DT (sanofi)	Aluminum Potassium Sulfate, Bovine Extract, Formaldehyde or Formalin, Thimerosal (multi-dose) or Thimerosal* (single-dose)
DT (Massachusetts)	Aluminum Hydroxide, Formaldehyde or Formalin
Hib (ACTHib)	Ammonium Sulfate, Formaldehyde or Formalin, Sucrose
Hib (Hiberix)	Formaldehyde or Formalin, Lactose
Hib (PevaxHib)	Aluminum Hydroxyphosphate Sulfate
Hib/Hep B (Comvax)	Amino Acids, Aluminum Hydroxyphosphate Sulfate, Dextrose, Formaldehyde or Formalin, Mineral Salts, Sodium Borate, Soy Peptone, Yeast Protein
Hep A (Havrix)	Aluminum Hydroxide, Amino Acids, Formaldehyde or Formalin, MRC-5 Cellular Protein, Neomycin Sulfate, 2-Phenoxyethanol, Phosphate Buffers, Polysorbate
Hep A (Vaqta)	Aluminum Hydroxyphosphate Sulfate, Bovine Albumin or Serum, DNA, Formaldehyde or Formalin, MRC-5 Cellular Protein, Sodium Borate
Hep B (Engerix-B)	Aluminum Hydroxide, Phosphate Buffers, Thimerosal*, Yeast Protein

Vaccine	Contains
Hep B (Recombivax)	Aluminum Hydroxyphosphate Sulfate, Amino Acids, Dextrose, Formaldehyde or Formalin, Mineral Salts, Potassium Aluminum Sulfate, Soy Peptone, Yeast Protein
HepA/HepB (Twinrix)	Aluminum Hydroxide, Aluminum Phosphate, Amino Acids, Dextrose, Formaldehyde or Formalin, Inorganic Salts, MRC-5 Cellular Protein, Neomycin Sulfate, 2-Phenoxyethanol, Phosphate Buffers, Polysorbate 20, Thimerosal*, Vitamins, Yeast Protein
Human Papillomavirus (HPV) (Cervrix)	3- <i>O</i> -desacyl-4'-monophosphoryl lipid A (MPL), Aluminum Hydroxide, Amino Acids, Insect Cell Protein, Mineral Salts, Sodium Dihydrogen Phosphate Dihydrate, Vitamins
Human Papillomavirus (HPV) (Gardasil)	Amino Acids, Amorphous Aluminum Hydroxyphosphate Sulfate, Carbohydrates, L-histidine, Mineral Salts, Polysorbate 80, Sodium Borate, Vitamins
Influenza (Afluria)	Beta-Propiolactone, Calcium Chloride, Neomycin, Ovalbumin, Polymyxin B, Potassium Chloride, Potassium Phosphate, Sodium Phosphate, Sodium Taurodeoxychoalate
Influenza (Agriflu)	Cetyltrimethylammonium Bromide (CTAB), Egg Protein, Formaldehyde or Formalin, Kanamycin, Neomycin Sulfate, Polysorbate 80
Influenza (Fluarix)	Egg Albumin (Ovalbumin), Egg Protein, Formaldehyde or Formalin, Gentamicin, Hydrocortisone, Octoxynol-10, α -Tocopheryl Hydrogen Succinate, Polysorbate 80, Sodium Deoxycholate, Sodium Phosphate, Thimerosal*
Influenza (Flulaval)	Egg Albumin (Ovalbumin), Egg Protein, Formaldehyde or Formalin, Sodium Deoxycholate, Phosphate Buffers, Thimerosal
Influenza (Fluvirin)	Beta-Propiolactone, Egg Protein, Neomycin, Polymyxin B, Polyoxyethylene 9-10 Nonyl Phenol (Triton N-101, Octoxynol 9), Thimerosal (multidose containers), Thimerosal* (single-dose syringes)
Influenza (Fluzone)	Egg Protein, Formaldehyde or Formalin, Gelatin, Octoxinol-9 (Triton X-100), Thimerosal (multidose containers)
Influenza (FluMist)	Chick Kidney Cells, Egg Protein, Gentamicin Sulfate, Monosodium Glutamate, Sucrose Phosphate Glutamate Buffer
IPV (Ipol)	Calf Serum Protein, Formaldehyde or Formalin, Monkey Kidney Tissue, Neomycin, 2-Phenoxyethanol, Polymyxin B, Streptomycin,
Japanese Encephalitis (JE-Vax)	Formaldehyde or Formalin, Gelatin, Mouse Serum Protein, Polysorbate 80, Thimerosal
Japanese Encephalitis (Ixiaro)	Aluminum Hydroxide, Bovine Serum Albumin, Formaldehyde, Protamine Sulfate, Sodium Metabisulphite
Meningococcal (Menactra)	Formaldehyde or Formalin, Phosphate Buffers
Meningococcal (Menomune)	Lactose, Thimerosal (10-dose vials only)
Meningococcal (Menveo)	Amino Acid, Formaldehyde or Formalin, Yeast
MMR (MMR-II)	Amino Acid, Bovine Albumin or Serum, Chick Embryo Fibroblasts, Human Serum Albumin, Gelatin, Glutamate, Neomycin, Phosphate Buffers, Sorbitol, Sucrose, Vitamins

Vaccine	Contains
MMRV (ProQuad)	Bovine Albumin or Serum, Gelatin, Human Serum Albumin, Monosodium L-glutamate, MRC-5 Cellular Protein, Neomycin, Sodium Phosphate Dibasic, Sodium Bicarbonate, Sorbitol, Sucrose, Potassium Phosphate Monobasic, Potassium Chloride, Potassium Phosphate Dibasic
Pneumococcal (Pneumovax)	Bovine Protein, Phenol
Pneumococcal (Prevnar)	Aluminum Phosphate, Amino Acid, Soy Peptone, Yeast Extract
Pneumococcal (Prevnar 13)	Aluminum Phosphate, Amino Acid, Polysorbate 80, Soy Peptone, Succinate Buffer, Yeast Extract
Rabies (Imovax)	Human Serum Albumin, Beta-Propiolactone, MRC-5 Cellular Protein, Neomycin, Phenol Red (Phenolsulfonphthalein), Vitamins
Rabies (RabAvert)	Amphotericin B, Beta-Propiolactone, Bovine Albumin or Serum, Chicken Protein, Chlortetracycline, Egg Albumin (Ovalbumin), Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Neomycin, Potassium Glutamate
Rotavirus (RotaTeq)	Cell Culture Media, Fetal Bovine Serum, Sodium Citrate, Sodium Phosphate Monobasic Monohydrate, Sodium Hydroxide Sucrose, Polysorbate 80
Rotavirus (Rotarix)	Amino Acids, Calcium Carbonate, Calcium Chloride, D-glucose, Dextran, Ferric (III) Nitrate, L-cystine, L-tyrosine, Magnesium Sulfate, Phenol Red, Potassium Chloride, Sodium Hydrogenocarbonate, Sodium Phosphate, Sodium L-glutamine, Sodium Pyruvate, Sorbitol, Sucrose, Vitamins, Xanthan
Td (Decavac)	Aluminum Potassium Sulfate, Bovine Extract, Formaldehyde or Formalin, 2-Phenoxyethanol, Peptone, Thimerosal*
Td (Massachusetts)	Aluminum Hydroxide, Aluminum Phosphate, Formaldehyde or Formalin, Thimerosal (some multidose containers)
Tdap (Adacel)	Aluminum Phosphate, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol
Tdap (Boostrix)	Aluminum Hydroxide, Bovine Extract, Formaldehyde or Formalin, Glutaraldehyde, Polysorbate 80
Typhoid (inactivated – Typhim Vi)	Disodium Phosphate, Monosodium Phosphate, Phenol, Polydimethylsiloxane, Hexadecyltrimethylammonium Bromide
Typhoid (oral – Ty21a)	Amino Acids, Ascorbic Acid, Bovine Protein, Casein, Dextrose, Galactose, Gelatin, Lactose, Magnesium Stearate, Sucrose, Yeast Extract
Vaccinia (ACAM2000)	Glycerin, Human Serum Albumin, Mannitol, Monkey Kidney Cells, Neomycin, Phenol, Polymyxin B
Varicella (Varivax)	Bovine Albumin or Serum, Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Gelatin, Monosodium L-Glutamate, MRC-5 DNA and Cellular Protein, Neomycin, Potassium Chloride, Potassium Phosphate Monobasic, Sodium Phosphate Monobasic, Sucrose
Yellow Fever (YF-Vax)	Egg Protein, Gelatin, Sorbitol
Zoster (Zostavax)	Bovine Calf Serum, Hydrolyzed Porcine Gelatin, Monosodium L-glutamate, MRC-5 DNA and Cellular Protein, Neomycin, Potassium Phosphate Monobasic, Potassium Chloride, Sodium Phosphate Dibasic, Sucrose

March 2010

Where “thimerosal” is marked with an asterisk () it indicates that the product should be considered equivalent to thimerosal-free products. This vaccine may contain trace amounts (<0.3 mcg) of mercury left after post-production thimerosal removal, but these amounts have no biological effect. *JAMA* 1999;282(18) and *JAMA* 2000;283(16)

Adapted from Grabenstein JD. *ImmunoFacts: Vaccines & Immunologic Drugs*. St. Louis, MO: Wolters Kluwer Health Inc.; 2009 and individual products’ package inserts.

All reasonable efforts have been made to ensure the accuracy of this information, but manufacturers may change product contents before that information is reflected here.

This document can be found on the CDC website at:

<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf>

Latex in Vaccine Packaging

“If a person reports a severe (anaphylactic) allergy to latex, vaccines supplied in vials or syringes that contain natural rubber should not be administered unless the benefit of vaccination outweighs the risk for a potential allergic reaction. In these cases, providers should be prepared to treat patients who are having an allergic reaction. For latex allergies other than anaphylactic allergies (e.g., a history of contact allergy to latex gloves), vaccines supplied in vials or syringes that contain dry natural rubber or rubber latex may be administered.” (ACIP *General Recommendations on Immunization*. 2011)

The following table is accurate, to the best of our knowledge, as of May 2011. **If in doubt, check the package insert for the vaccine in question.**

Vaccine		Latex?
Anthrax (BioThrax)		YES – Vial
Comvax		YES – Vial
DTaP	Daptacel	NO
	Infanrix	YES – Syringe NO – Vial
	Tripedia	YES – Vial
DT (Generic)		YES – Vial
Hib	Hiberix	YES – Syringe Tip Cap
	PedvaxHIB	YES – Vial
	ActHIB	YES – Diluent vial NO – Lyophilized vaccine vial
Hepatitis A	Havrix	YES – Syringe NO – Vial
	Vaqta	YES – Vial YES – Syringe
Hepatitis B	Engerix-B	YES – Syringe NO – Vial
	Recombivax HB	YES – Vial
HPV	Gardasil	NO
	Cerverix	YES – Syringe NO – Vial
Influenza	Fluarix	YES – Syringe Tip Cap
	Fluvirin	YES – Syringe Tip Cap
	Fluzone	YES – Syringe Tip Cap
	Fluzone High-Dose	YES – Syringe Tip Cap
	Fluzone Intradermal	NO
	FluLaval	NO
	Afluria	NO
	Agriflu	YES – Syringe Tip Cap
FluMist	NO	
Japanese Encephalitis (Ixiaro)		NO
Kinrix		YES – Syringe NO – Vial
MMR (M-M-R II)		NO
MMRV (ProQuad)		NO

Vaccine		Latex?
Measles (Attenuvax)		NO
Mumps (Mumpsvax)		NO
Rubella (Meruvax II)		NO
Meningococcal	Menomune	YES – Vial
	Menactra	YES – Vial NO – Syringe
	Menveo	NO
Pediarix		YES – Syringe NO – Vial
Pentacel		NO
Pneumococcal	Pneumovax 23	NO
	Prevnar 13	NO
Polio (IPOL)		YES – Syringe NO – Vial
Rabies	Imovax Rabies	NO
	RabAvert	NO
Rotavirus	RotaTeq	NO
	Rotarix	YES – Applicator NO – Vial & Transfer Adapter
Td	Decavac	NO – Vial YES – Syringe
	Generic	YES – Vial YES – Syringe
Tdap	Adacel	YES – Syringe Tip Cap NO – Vial
	Boostrix	YES – Syringe NO – Vial
TriHIBit		YES – Vial
Twinrix		YES – Syringe NO – Vial
Typhoid	Typhim Vi	NO
	Vivotif Berna	N/A
Varicella (Varivax)		NO
Vaccinia (Smallpox) (ACAM2000)		NO
Yellow Fever (YF-Vax)		YES – Vial
Zoster (Shingles) (Zostavax)		NO

May 2011