Guide to Contraindications and Precautions[1] to Commonly Used Vaccines*

Vaccine	Contraindications	Precautions[1]
BCG	• Infants who are known to be HIV infected with or without signs or reported symptoms of HIV infection. • Infants whose HIV infection status is unknown but who have signs or reported symptoms suggestive of HIV infection and who are born to HIV-infected mothers. • If HIV status can be ruled-out with early virological testing, BCG may then be administered[a]	• Infant weighing less than 2000 grams (4 lbs, 6.4 oz)
Hepatitis B (HepB)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever • Infant weighing less than 2000 grams (4 lbs, 6.4 oz)[2]
Oral poliovirus vaccine (OPV)	• OPV has not been found harmful when administered to asymptomatic HIV-positive children. However, if available, inactivated polio vaccine (IPV) is preferred, especially for symptomatic individuals. IPV is preferred for HIV-positive individuals and their household contacts due to the theoretical risk of OPV's neurovirulent effect on immunocompromised persons.	
Inactivated poliovirus vaccine (IPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever
Rotavirus	• Severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component	• Moderate or severe acute illness with or without fever • Altered immunocompetence other than Severe Combined Immunodeficiency (SCID) that usually contraindicates • History of intussusception • Pre-existing chronic gastrointestinal disease • Spina bifida or bladder exstrophy
Diphtheria, tetanus, pertussis (DTP, DTaP) Tetanus, diphtheria, pertussis (Tdap)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Encephalopathy (e.g., coma, decreased level of conscious- ness, prolonged seizures) not attributable to another identifi- able cause within 7 days of administration of previous dose of DTP or DTaP (for DTP/DTaP); or of previous dose of DTP, DTaP, or Tdap (for Tdap)	• 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 or diphtheria 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), uncontrolled seizures, or progressive encepha-lopathy until a treatment regimen has been established and the condition has stabilized For DTP/DTaP: • Temperature of 40.5°C or higher (105°F or higher) within 48 hours after vaccination with a previous dose of DTP/DTaP • Collapse or shock-like state (i.e., hypotonic hyporesponsive epi- sode) 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)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever • History of arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
Influenza, injectable trivalent (TIV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose of any influenza vaccine or to a vaccine component, including egg protein. • Infants younger than 6 months	• Moderate or severe acute illness with or without fever • History of GBS within 6 weeks of previous influenza vaccine
Haemophilus influenzae type b (Hib)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component • Age younger than 6 weeks	• Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR)[4]	• 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 immunode- ficiency, or long-term immunosuppressive therapy[5] or patients with HIV infection who are severely immunocompromised)[6] • Pregnancy[7]	• Moderate or severe acute illness with or without fever • Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)[8] • History of thrombocytopenia or thrombocytopenic purpura • Need for tuberculin skin testing[8]

Yellow Fever	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component (eggs, egg products, chicken proteins, gelatin or dry latex rubber). • Children aged under 6 months • Severely immunocompromised persons (thymus disorder, AIDS, primary immunodeficiencies, malignant neoplasms, and transplantation, immunosuppressive and immunomodulatory therapies)[b]	• Children 6 to 8 months (can be given in outbreak situations) • Adults aged ≥60 years • Asymptomatic HIV Infection with Moderate Immune Suppression • Pregnancy • Breastfeeding
Varicella (Var)[4]	• 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 therapy[5] or patients with HIV infection who are severely immunocompromised)[6] • Pregnancy	• 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.
Human papilloma-virus (HPV)[9,10]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component	• Moderate or severe acute illness with or without fever • Pregnancy[11]
Pneumococcal Conjugate (PCV)	• For PCV, severe allergic reaction (e.g., anaphylaxis) after a previous dose (of PCV) or any diphtheria toxoid-containing vaccine) or to a vaccine component (of PCV or any diphtheria toxoid-containing vaccine)	• Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (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

* Adapted from Immunization Action Coalition and "Table 6. Contraindications and Precautions to Commonly Used Vaccines" found in: CDC. "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)." MMWR 2011; 60(No. RR-2), p. 40–41, and from Atkinson W, Wolfe S, Hamborsky J, eds. Appendix A. Epidemiology and Prevention of Vaccine-Preventable Diseases (www.cdc.gov/vaccines/pubs/pinkbook/index.html).

Footnotes

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.
2. 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)-neg- ative 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, hepa- titis B immunoglobulin and hepatitis B vaccine should be adminis-tered within 12 hours of birth, regardless of weight.
3. 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.
4. 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.
5. HIV-infected children may receive varicella and measles vaccine if CD4+ T-lymphocyte count is >15%. (Source: Adapted from American Academy of Pediatrics. Passive Immu- nization. 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.)
6. Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered.
7. Even though in most cases no fetal adverse events have been observed, live vaccines should be generally avoided during pregnancy to prevent the vaccine from being temporally associated with (or blamed for) some event in the newborn.
8. 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.
9. Following vaccine administration, adolescent individuals should be observed for 15 minutes. While no evidence exists of elevated risk for fainting (syncope) specifically related to HPV vaccines, post-licensure monitoring shows an increased occurrence of post-vaccination fainting among adolescent individuals. This increased occurrence may relate to the specific psychosocial characteristics of adolescents.
10. HPV vaccines may be administered under immunosuppression; previous equivocal or abnormal Papanicolaou (PAP) test; known HPV infection; and history of genital warts, if none of the true contraindications occurs. While limited, available data do not suggest serious adverse outcomes following immunization of HIV-positive children with quadrivalent HPV vaccine.
11. Women should not be vaccinated during pregnancy. This precaution is solely based on relative lack of HPV vaccine safety data in pregnant women. However, no evidence exists either indicating that HPV vaccine are dangerous to the mother or the offspring if a pregnant woman is inadvertently vaccinated. Consequently, pregnancy should never be terminated if a woman was vaccinated inadvertently. The vaccination series should merely be interrupted and concluded after birth giving. Quadrivalent HPV vaccine can be administered to lactating women because available data do not indicate any safety concerns; safety data for lactating women are not available for the bivalent vaccine.

[a] BCG - *Weekly Epidemiological Record*, No. 21, 25 May 2007

[b] Yellow fever - *Weekly Epidemiological Record*, No. RR-7, 30 July 2010

False Contraindications

Health personnel commonly misperceive some conditions as contraindications to vaccination, when in fact they are not (so called false contraindications). General to all vaccines, these conditions include: diarrhea; minor upper respiratory tract illnesses with or without fever; mild to moderate local reactions to a previous dose of vaccine; current antimicrobial therapy; and being in the convalescent phase of an acute illness.