Summary of Maternal Immunization Recommendations



Resources for health care professionals

Vaccines help keep your pregnant patients and their growing families healthy.

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Vaccine*	Indicated During Every Pregnacy	May Be Given During Pregnancy in Certain Populations	Contraindicated During Pregnancy	Can Be Initiated Postpartum or When Breastfeeding or Both
Inactivated influenza	X ^{†,1,2}			X‡
Tetanus toxoid, reduced diptheria toxoid and acellular pertussis (Tdap)	X ^{†,3,4}			X‡
Pneumococcal vaccines		X ^{§,5,6}		X ^{§,5,6}
Meningococcal conjugate (MenACWY) and Meningococcal serogroup B		X ^{∥,7}		X ^{∥.7}
Hepatitis A		X ^{¶,8}		X ^{¶,8}
Hepatitis B		X ^{#,9,10}		X ^{#,9,10}
Human papillomavirus (HPV)**				X ^{**,11,12}
Measles, mumps, and rubella			X ^{††,13,14}	X ^{‡†}
Varicella			X ^{††,13,15,16}	X ^{‡†}

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*An "X" indicates that the vaccine can be given in this window. See the corresponding numbered footnote for details.

[†] Inactivated influenza vaccination can be given in any trimester and should be given with each influenza season as soon as the vaccine is available. The Tdap vaccine is given at 27–36 weeks of gestation in each pregnancy, preferably as early in the 27–36-week window as possible. The Tdap vaccine should be given during each pregnancy in order to boost the maternal immune response and maximize the passive antibody transfer to the newborn. Women who did not receive Tdap during pregnancy (and have never received the Tdap vaccine) should be immunized once in the immediate postpartum period.^{1–3}

* Vaccination during every pregnancy is preferred over vaccination during the postpartum period to ensure antibody transfer to the newborn.^{3,4}

§ There are two pneumococcal vaccines: 1) the 23-valent pneumococcal polysaccharide vaccine (PPSV23) is recommended in reproductive-age women who have heart disease, lung disease, sickle cell disease, and diabetes as well as other chronic illnesses; 2) the 13-valent pneumococcal vaccine (PCV13) is recommended for reproductive-aged women with certain immunocompromised conditions, including human immunodeficiency virus (HIV) infection and asplenia. The PCV13 vaccine should be deferred in pregnant women, unless the woman is at increased risk of pneumococcal disease and after consultation with her health care provider the benefits of vaccination are considered to outweigh the potential risks.^{5,6}

|| Quadrivalent conjugate meningococcal vaccine is routinely recommended for adolescents aged 11–18 years, along with individuals with HIV infection, complement component deficiency (including eculizumab use), functional or anatomic asplenia (including sickle cell disease), exposure during a meningococcal disease outbreak, travel to endemic or hyperendemic areas, or work as a microbiologist routinely exposed to *Neisseria meningitidis*. If indicated, pregnancy should not preclude vaccination. The serogroup B vaccine should be deferred in pregnant women, unless the woman is at increased risk of serogroup B meningococcal disease⁷ and, after consultation with her health care provider, the benefits of vaccination are considered to outweigh the potential risks.⁷

¹ Pregnant women with any of the conditions that increase the risk of either acquiring or having a severe outcome from hepatitis A infection (eg, having chronic liver disease, clotting-factor disorders, traveling, using injection and noninjection drugs, and working with nonhuman primates) should be vaccinated during pregnancy if not previously vaccinated. Pregnant women at risk of hepatitis A infection during pregnancy should also be counseled concerning all options to prevent hepatitis A infection. Any woman who wants to be protected from hepatitis A or has an indication for use may receive the vaccine during pregnancy or during the postpartum period.⁸

Hepatitis B vaccination is recommended for women who are identified as being at risk of hepatitis B infection during pregnancy (eg, women who have household contacts or sex partners who are hepatitis B surface antigen–positive; have more than one sex partner during the previous 6 months; have been evaluated or treated for a sexually transmitted infection; are current or recent injection-drug users; have chronic liver disease; have HIV infection; or have traveled to certain countries). Any woman who wants to be protected from hepatitis B or has an indication for use may receive the vaccine during pregnancy and the postpartum period. Pregnant women at risk of hepatitis B infection.^{1,9}

** The HPV vaccination in pregnancy is not recommended, however, inadvertent HPV vaccination during pregnancy is not associated with adverse events for the woman or her fetus. The HPV vaccine can be given to postpartum and breastfeeding women. The HPV vaccine should be administered to women through age 26 years who were not previously vaccinated. Vaccination timing and number of doses should follow Centers for Disease Control and Prevention and American College of Obstetricians and Gynecologists' guidance.^{11,12}

⁺⁺ Live attenuated vaccines including, measles–mumps–rubella, varicella, and live-attenuated influenza vaccine are contraindicated for pregnant women. If indicated (ie, among seronegative women), the measles–mumps–rubella vaccine and the varicella vaccine should be given during the postpartum period. Inadvertent administration during pregnancy has not been associated with congenital rubella or congenital varicella syndromes.^{13–16} ^{1.} Influenza vaccination during pregnancy. Committee Opinion No. 732. American College of Obstetricians and Gynecologists. Obstet Gynecol 2018;131:e109–14.

^{2.} Centers for Disease Control and Prevention. Pregnant women and influenza. Atlanta (GA): CDC; 2017.

^{3.} Centers for Disease Control and Prevention. Pregnancy and whooping cough. Atlanta (GA): CDC; 2017.

^{4.} Update on immunization and pregnancy: tetanus, diphtheria, and pertussis vaccination. Committee Opinion No. 718. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;130:e153–7.

^{5.} Centers for Disease Control and Prevention. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine for adults with immunocompromising conditions: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2012;61:816–9.

^{6.} Updated recommendations for prevention of invasive pneumococcal disease among adults using the 23-valent pneumococcal polysaccharide vaccine (PPSV23). Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices. MMWR Morb Mortal Wkly Rep. 2010;59:1102–6.

^{7.} Folaranmi T, Rubin L, Martin SW, Patel M, MacNeil JR. Use of serogroup B meningococcal vaccines in persons aged \geq 10 years at increased risk for serogroup B meningococcal disease: recommendations of the Advisory Committee on Immunization Practices, 2015. Centers for Disease Control [published erratum appears in MMWR Morb Mortal Wkly Rep. 2015;64:806]. MMWR Morb Mortal Wkly Rep. 2015;64:608–12.

^{8.} Fiore AE, Wasley A, Bell BP. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). Advisory Committee on Immunization Practices. MMWR Recomm Rep. 2006;55(RR-7):1–23.

^{9.} Viral hepatitis in pregnancy. ACOG Practice Bulletin No. 86. American College of Obstetricians and Gynecologists. Obstet Gynecol 2007;110:941–56.

^{10.} Mast EE, Weinbaum CM, Fiore AE, Alter MJ, Bell BP, Finelli L, et al. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: immunization of adults [published erratum appears in MMWR Morb Mortal Wkly Rep. 2007;56:1114]. MMWR Recomm Rep 2006;55(RR-16):1–33; quiz ce1–4.

^{11.} Human papillomavirus vaccination. Committee Opinion No. 704. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;129:e173–8.

^{12.} Petrosky E, Bocchini JA Jr, Hariri S, Chesson H, Curtis CR, Saraiya M, et al. Use of 9-valent human papillomavirus (HPV) vaccine: updated HPV vaccination recommendations of the advisory committee on immunization practices. MMWR Morb Mortal Wkly Rep. 2015;64:300–4.

^{13.} American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Guidelines for perinatal care. 8th ed. Elk Grove Village (IL): AAP; Washington, DC: American College of Obstetricians and Gynecologists; 2017.

^{14.} McLean HQ, Fiebelkorn AP, Temte JL, Wallace GS. Prevention of measles, rubella, congenital rubella syndrome, and mumps, 2013: summary recommendations of the Advisory Committee on Immunization Practices (ACIP). Centers for Disease Control and Prevention [published erratum appears in MMWR Recomm Rep. 2015;64:259]. MMWR Recomm Rep. 2013;62(RR-4):1–34.

^{15.} Centers for Disease Control and Prevention. Updated recommendations for use of VariZIG—United States, 2013. MMWR Morb Mortal Wkly Rep. 2013;62:574–6.

^{16.} Marin M, Guris D, Chaves SS, Schmid S, Seward JF. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). Advisory Committee on Immunization Practices, Centers for Disease Control and Prevention. MMWR Recomm Rep. 2007;56(RR-4):1–40.

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