GUIDELINES FOR VACCINATING PREGNANT WOMEN

Vaccination of pregnant women should be considered on the basis of risk vs. benefit. Risk to the fetus from vaccination of the mother during pregnancy is primarily theoretical. There is no evidence of risk from vaccinating pregnant women with inactivated virus or bacterial vaccines or toxoids. Generally, live vaccines are contraindicated for pregnant women because of the theoretical risk of transmission of the vaccine virus to the fetus. If a live vaccine is administered to a pregnant woman, or if she becomes pregnant within 4 weeks after vaccination, she should be counseled about the potential risks to the fetus. Passive immunization with immune globulin products has shown no risks to the fetus.
The following table may be used as a general guide.

	VACCINE†	SHOULD BE CONSIDERED IF OTHERWISE INDICATED	SPECIAL/CONDITIONAL RECOMMENDATION	CONTRAINDICATED DURING PREGNANCY
ROUTINE	Hepatitis A[1]		•	
	Hepatitis B	•		
	Human Papillomavirus (HPV)[2]		•	
	Influenza (Inactivated)	Recommended		
	Influenza (LAIV)*			•
	Measles, Mumps, Rubella (MMR)*			•
	Meningococcal (MCV4)[3]		•	
	Pneumococcal (PCV13)[4]		•	
	Pneumococcal (PPV23)[5]		•	
	Inactivated Poliovirus (IPV)[6]		•	
	Tetanus, Diphtheria (Td)	•		
	Tetanus, Diphtheria, Pertussis (Tdap)[7]	•		
	Varicella*			•
TRAVEL & OTHER	Anthrax[8]		•	
	BCG*			•
	Japanese Encephalitis (JE)[9]		•	
	Meningococcal (MPSV4)	•		
	Rabies	•		
	Typhoid (Oral* & Parenteral)[10]		•	
	Vaccinia*[11]		•	•
	Yellow Fever*[12]		•	
	Zoster*			•

*Live attenuated vaccine

†NOTES

1. **Hepatitis A Vaccine:** The safety of hepatitis A vaccination during pregnancy has not been determined; however because it is produced from an inactivated virus, the theoretical risk to the fetus is expected to be low. The risk associated with vaccination should be weighed against the risk for hepatitis A in pregnant women who may be at high risk for exposure.
2. **Human Papillomavirus (HPV) Vaccine:** The quadrivalent HPV vaccine is not recommended for use in pregnancy. Until more data is available, initiation of the vaccine series should be delayed until after completion of pregnancy. If a woman is found to be pregnant after initiating the HPV vaccination series, the remainder of 3-dose regimen should be delayed until after completion of pregnancy. If a vaccine dose has been given during pregnancy, no intervention is needed.
3. **Meningococcal Conjugate Vaccine (MCV4):** No data is available on the vaccination of pregnant women with MCV4. Women of childbearing age who become aware that they were pregnant at the time of MCV4 vaccination should contact their health-care provider or the vaccine manufacturer.
4. **Pneumococcal Conjugate Vaccine (PCV13):** Pregnancy recommendations have not been published at this time; use of PCV13 is limited among women of childbearing age.
5. **Pneumococcal Polysaccharide Vaccine (PPV23):** The safety of PPV23 during the first trimester of pregnancy has not been evaluated, although no adverse consequences have been reported among newborns whose mothers were inadvertently vaccinated during pregnancy.
6. **Inactivated Polio Vaccine (IPV):** Vaccination of pregnant women should be avoided due to the theoretical risk to the fetus unless the mother is at an increased risk for infection and requires immediate protection against polio.
7. **Tetanus, Diphtheria, acellular Pertussis (Tdap) Vaccine:** No data is available on the vaccination of pregnant women with Tdap. When Tdap is administered during pregnancy, transplacental maternal antibodies might protect the infant against pertussis in early life. They also could interfere with the infant's immune response to infant doses of DTaP, and leave the infant less well protected against pertussis. ACIP recommends Td when tetanus and diphtheria protection is required during pregnancy, but can be substituted with Tdap if pertussis protection is needed; administration of Tdap in the second or third trimester is preferred.
8. **Anthrax Vaccine:** No studies have been published on the vaccination of pregnant women with the anthrax vaccine. Vaccination is not recommended in a pre-event setting, where risk for exposure is presumably low. Pregnant women should be vaccinated if they are at risk for inhalation anthrax in a post-event setting.
9. **Japanese Encephalitis (JE) Vaccine:** No specific information is available on the vaccination of pregnant women with the JE vaccine. There is an unknown, but theoretical risk to the developing fetus, and the vaccine should NOT be routinely administered during pregnancy.
10. **Typhoid Vaccine:** No data have been reported on the use of any of the typhoid vaccines in pregnancy.
11. **Vaccinia (smallpox) Vaccine:** Vaccinia vaccine is a live-viral vaccine and thus should NOT be routinely administered to pregnant women. However, pregnant women who have had a definite exposure to smallpox virus (ie, face-to-face, household, or close-proximity contact with a smallpox patient) and are, therefore, at high risk for contracting the disease, should be vaccinated. If the level of exposure risk is undetermined, vaccination should be considered on the basis of risk vs. benefit.
12. **Yellow Fever Vaccine:** The safety of yellow fever vaccination in pregnant women has not been established. The vaccine should only be administered if travel to an endemic area is unavoidable and if at an increased risk for exposure.

For information on individual vaccines, see the product entries in this Section or contact the manufacturer or call the National Immunization Hotline at 800-232-4636.
Source: Advisory Committee in Immunization Practices. *Guidelines for Vaccinating Pregnant Women.* 1998 Oct [updated 2012 March].
Available at: http://www.cdc.gov/vaccines/pubs/preg-guide.htm. (Rev. 10/2012)