



IMMUNIZATIONS DURING PREGNANCY

Most women are immunized against certain diseases at a young age, so the issue of immunization during pregnancy does not come up. However, occasionally the issue of immunization for a pregnant woman will come up, and so will concerns about the safety of the vaccine.

Increasingly more vaccines are available to women. These vaccines fall into four categories. Toxoids are vaccines that contain products put out by bacteria, and these products are chemically altered. Inactivated vaccines contain parts of an organism or organisms that have been inactivated. Live attenuated vaccines are vaccines created from organisms that have been altered to cause less symptoms to the patient, but still cause enough of an immune response to prevent susceptibility to the actual live virus. Finally, immune globulins are suspensions that actually provide protection by supplying patients with antibodies from other people. This is known as passive immunity.

In general, pregnant women are not given live attenuated vaccines while they are pregnant because there is a theoretical risk of transmission of the virus to the fetus. There is no proof that this actually occurs. The issue of measles, mumps, and rubella (MMR) vaccines often arises. There has been no evidence that inadvertent exposure to this vaccine causes congenital rubella syndrome (the disease that occurs with rubella exposure during pregnancy). Additional concerns are often expressed by women who have other children who need the MMR vaccine while the mother is pregnant. There is no evidence that measles, mumps, or rubella are transmitted from an immunized person, therefore women should not be at risk of exposure from immunized children. Finally, if you are considering pregnancy and are known to be non-immune to rubella, you should be vaccinated against this potentially serious disease. After immunization, it is recommended that you wait 3 months before attempting pregnancy.

To date, in the United States the only immunizations recommended routinely during pregnancy are tetanus and diphtheria toxoids. If a woman is at high risk for acquiring hepatitis B, this vaccine may be administered during pregnancy. The risks associated with fetal hepatitis B are serious enough to warrant vaccination of susceptible women. Additionally, if a woman is at high risk of acquiring either pneumonia or influenza, either of these vaccines may be administered.

Following is a summary of some of the common vaccinations, their classifications, and their risks when associated with pregnancy.

LIVE ATTENUATED VIRUSES

- Measles - contraindicated in pregnancy
- Mumps - contraindicated in pregnancy
- Rubella - contraindicated in pregnancy
- Polio - only used if there is significantly increased risk of exposure during pregnancy
- Yellow fever - only used if a patient is traveling to significantly high-risk areas

INACTIVE VIRUS/BACTERIAL VACCINES

- Influenza - used in high-risk patients or at patient request
- Rabies - used in patients who have any exposure or suspected exposure during pregnancy
- Hepatitis B - used in high-risk patients
- Cholera - used in patients traveling to high-risk areas
- Typhoid - used in patients traveling to high-risk areas

TOXOIDS

- Tetanus - used in a similar fashion to nonpregnant patients with boosters every 10 years

IMMUNE GLOBULINS

- Hepatitis B - used postexposure in an attempt to prevent disease
- Rabies - used postexposure in an attempt to prevent disease
- Tetanus - used postexposure in an attempt to prevent disease
- Varicella - used postexposure in an attempt to prevent severe consequences of disease that can occur in a pregnant woman
- Hepatitis A - used postexposure in an attempt to prevent disease
- Measles - used postexposure in an attempt to prevent disease

The issue of pregnancy and immunizations is an important one. As mentioned above, the most important considerations are the possibility of infection during pregnancy weighed against any possible risks to the pregnancy from the immunization. The most concerning viruses are: rubella because of possible devastating effects on the infant, measles because of its potential for preterm labor and maternal problems, and tetanus because of its risk of associated neonatal tetanus.

THOMAS G. STOVALL, M.D.

Dr. Stovall is a Clinical Professor of Obstetrics and Gynecology at the University of Tennessee Health Science Center in Memphis, Tennessee and Partner of Women's Health Specialists, Inc.

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Health Information Provided by Women's Health Specialists

7800 Wolf Trail Cove, Germantown, TN 38138, (901) 682-9222, www.whsobgyn.com

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