

Frequently Asked Questions Concerning Seasonal Influenza for Obstetrician–Gynecologists

Should pregnant women be immunized against seasonal influenza?

Yes. Influenza vaccination is an essential element of prenatal care because influenza can lead to serious illness, including a higher chance of developing pneumonia, when it occurs either in the antepartum or postpartum period. The Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices and the American College of Obstetricians and Gynecologists recommend that all adults receive an annual influenza vaccine and that all women who are or will be pregnant during influenza season receive any licensed, recommended, age-appropriate, inactivated influenza vaccine during any trimester, as soon as it is available. Multiple studies indicate that during pregnancy, women are at increased risk of serious medical complications from influenza. In addition, because the influenza vaccine is not effective in infants younger than six months, passive immunization of fetuses through transplacentally transmitted antibodies is currently the best prevention strategy for newborns. Vaccination in the postpartum period is an alternative only when vaccination during pregnancy cannot be completed. It is safe for breastfeeding women to receive the flu vaccine.

Is it safe for pregnant women to be immunized against seasonal influenza?

Yes. Numerous studies, including clinical trials and observational studies, and data from safety reporting systems have consistently demonstrated the safety of influenza vaccination during pregnancy. In fact, data show that newborns of women who received the flu vaccine while pregnant have much lower rates of influenza than newborns whose mothers were not vaccinated during pregnancy. To date, only one small retrospective case–control study has suggested a possible association between receipt of an influenza vaccine containing A/H1N1pdm early in the first trimester and spontaneous abortion in women who also received an influenza vaccine containing A/H1N1pdm in the previous influenza season (1). This has not been observed in other seasons. Pregnant women should be counseled that because of the lack of evidence of biological plausibility, several notable flaws in this study, and the preponderance of other data showing no association of influenza vaccination and miscarriage, the recommendation for flu vaccine given in any trimester has not changed. The influenza vaccine is made the same way each year with the only difference being the use of different strains of influenza virus.

When should pregnant women be immunized?

All women who are or will be pregnant during influenza season should receive an inactivated influenza vaccine as soon as it is available. Ideally, an influenza vaccination should be given by the end of October, but vaccination at any time during the influenza season is encouraged to ensure protection during the period of circulation. The inactivated influenza vaccine can be given to all women during any trimester. Because flu vaccines are recommended annually for all adults, pregnant women should be vaccinated even if they received a flu vaccine during a previous pregnancy.

Which influenza vaccine should pregnant women receive?

Pregnant women should receive any licensed, recommended, age-appropriate inactivated influenza vaccine, given as an intramuscular injection in the deltoid muscle. The Centers for Disease Control and Preventions’ Advisory Committee on Immunization Practices and the American College of Obstetricians and Gynecologists do not preferentially recommend a specific formulation of the influenza vaccine.

Can a person with an egg allergy receive an influenza vaccine?

Egg allergy, including hives, is no longer a contraindication to receipt of the influenza vaccine. Individuals, including pregnant women, who have experienced only hives after exposure to egg should receive any licensed, recommended, age-appropriate, influenza vaccine. Individuals who reported symptoms other than hives (eg, angioedema, respiratory distress, lightheadedness, or recurrent emesis) or who required epinephrine or another emergency medical intervention, also may receive any licensed and recommended influenza vaccine that is otherwise appropriate. However, their vaccine should be administered in an inpatient or outpatient medical setting and under the supervision of health care providers who are able to recognize and manage severe allergic conditions. A previous severe allergic reaction to influenza vaccine, regardless of the component suspected of causing the reaction, is a contraindication to future receipt of the vaccine.

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IMMUNIZATION for WOMEN
Immunization Information for Ob-Gyns and Their Patients

Is it safe for pregnant women to receive an influenza vaccine that contains mercury (thimerosal)?

Yes. Although some individuals have raised concerns that thimerosal, a mercury-containing preservative used in multidose vials of the influenza vaccine, may be unsafe, there is no scientific evidence that thimerosal-containing vaccines cause health or developmental problems in children born to women who received vaccines with thimerosal during pregnancy. Therefore, although thimerosal-free formulations of the influenza vaccine are available, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices does not indicate a preference for thimerosal-containing or thimerosal-free vaccines for any group, including pregnant women.

Can I administer the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine and the flu vaccine during the same visit?

Yes. You can give the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine and the flu vaccine in the same visit. Receiving these vaccinations at the same time is safe and effective.

How should I treat a pregnant patient with suspected influenza illness?

Pregnant women are at high risk of serious complications of influenza (flu) infection such as intensive care unit admission, preterm delivery, and maternal death. Patients with flu-like illness should be treated with antiviral medications presumptively regardless of vaccination status. Treatment with oseltamivir (75 mg twice daily for 5 days) is preferred, however if oseltamivir is unavailable zanamivir (two inhalations [10 mg] twice daily for 5 days) may be substituted. Health care providers should not rely on test results to initiate treatment; and should treat presumptively based on clinical evaluation. See the American College of Obstetricians and Gynecologists and Society for Maternal–Fetal Medicine's "Influenza Season Assessment and Treatment for Pregnant Women with Influenza-Like Illness" algorithm for more information.

Should we provide antiviral chemoprophylaxis to pregnant women exposed to influenza?

Yes. Because of the high potential for morbidity, the Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists recommend that postexposure antiviral chemoprophylaxis (75 mg of oseltamivir once daily for 10 days) be considered for pregnant women and women who are up to 2 weeks postpartum (which includes pregnancy loss) who have had close contact with someone likely to have been infected with influenza. If oseltamivir is unavailable, zanamivir can be substituted, two inhalations once daily for 10 days. All women who are pregnant or in the first 2 weeks postpartum should be counseled to immediately call for evaluation if the early signs and symptoms of influenza infection (eg, a fever greater than 100.0°F coupled with shortness of breath, syncope, or chest pain) develop.

Resources

For more information on antiviral chemoprophylaxis in pregnant and postpartum women, see the Centers for Disease Control and Prevention's website at www.cdc.gov/flu/professionals/antivirals/avrec_ob.htm.

For more information on seasonal flu vaccine safety and pregnant women, see the Centers for Disease Control and Prevention's website at www.cdc.gov/flu/protect/vaccine/qa_vacpregnant.htm.

For physician and patient resources, see the American College of Obstetrician and Gynecologists' Immunization for Women website at www.immunizationforwomen.org.

Reference

1. Donahue JG, Kieke BA, King JP, DeStefano F, Mascola MA, Irving SA, et al. Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1pdm09 in 2010–11 and 2011–12. *Vaccine* 2017;35:5314–22.

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