

Seasonal Influenza Vaccine (Flu Shot) during Pregnancy

This sheet talks about the risks that exposure to the seasonal influenza vaccine can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

What is influenza?

Influenza is an infection of the respiratory (breathing) tract. It is often called the flu. The symptoms of influenza are fever, headache, chills, muscle aches, coughing, congestion, runny nose, and sore throat. Influenza sometimes causes vomiting and diarrhea.

The typical flu season is from November through March of each year. The types (strains) of viruses that cause seasonal influenza change a little bit each year.

During the 2009-2010 flu season, people got sick from both seasonal influenza viruses and a new type of virus called H1N1. For more information about the 2009 H1N1 flu and pregnancy, see the OTIS fact sheet [H1N1 Flu and Pregnancy](#).

Why is influenza a concern for pregnant women?

When you are pregnant your body has a harder time fighting infections. Pregnant women have an increased risk of having serious complications from the flu, such as respiratory distress (severe breathing problems). Severe disease and even death occurs more often in pregnant women than in women who are not pregnant. Pregnant women with severe disease may have no other health problems other than the flu.

For more information about flu and pregnancy, see the OTIS fact sheet [Seasonal Influenza \(the Flu\) during Pregnancy](#).

Why is influenza a concern for the developing baby?

While the flu itself does not appear to cause birth defects, symptoms of the flu, such as a high fever, are a potential risk for the developing baby. Women who get very sick from the flu may be at increased risk for pregnancy complications such as premature delivery.

Like pregnant women, infants who get the flu are at increased risk for severe disease from the flu. Since infants cannot receive the flu shot until they are 6 months old, vaccinating the mom and other caregivers may help protect the baby from catching the flu.

What is the seasonal influenza vaccine?

The injected seasonal influenza vaccine, also known as the flu shot, is an inactivated virus vaccine. This means that it is noninfectious and cannot give a person the flu. This vaccine is given as an injection in the upper arm.

The flu shot can prevent flu in up to 90% of healthy adults. The mixture of viruses in the flu shot is updated every year. Therefore, it is necessary to receive the flu shot each year in order to be protected from the current flu viruses. Because pregnant women are at an increased risk for complications from the flu, women who are pregnant or planning to become pregnant should get the seasonal flu shot.

A nasal-spray influenza vaccine (FluMist®) is also available. Unlike the flu shot, this vaccine contains a live but weakened virus. The nasal-spray influenza vaccine is not recommended during pregnancy.

What about the H1N1 vaccine?

The H1N1 vaccine was available during the 2009-2010 flu season as a separate vaccine. Starting in the 2010-2011 flu season, the seasonal flu shot will provide protection against seasonal and H1N1 flu viruses. An additional H1N1 flu shot is no longer needed.

I just got the flu shot. How long should I wait until I get pregnant?

There is no recommended waiting period since the flu shot can be given any time during pregnancy.

Is it ok for me to receive the flu shot while I'm pregnant?

Yes. In the United States the flu shot has been given to pregnant women since the 1960s. Studies of over 5,000 women who have received the flu shot just before or during various times in pregnancy have found no increased risk for birth defects. Although the H1N1 formulation has not been specifically studied for pregnancy, the make-up of the seasonal flu shot changes yearly to match the circulating flu types so differences in safety are not expected with either the 2009 H1N1 vaccine or the inclusion of H1N1 into the seasonal flu shot.

The influenza vaccine given by injection is recommended for all women planning to become pregnant or who already are pregnant (whether in their first, second, or third trimester) during the flu season.

Is it a new recommendation that the flu shot can be given in the first trimester?

No. For over 10 years the flu shot had been recommended for women in their first trimester who were

at high risk from the flu, such as those with asthma, plus all pregnant women in their second or third trimester. Now it is known that pregnancy itself puts women at higher risk for flu complications. Therefore, in 2004, the Centers for Disease Control and Prevention and the American College of Obstetrics and Gynecologists expanded their recommendations for all pregnant women to receive the flu shot in their first, second, or third trimester (any time in pregnancy), regardless of their pre-pregnancy health.

When should I receive the seasonal influenza vaccine?

To provide protection throughout the flu season, it is important to receive the vaccine as soon as it becomes available. A single flu shot protects adults all flu season long.

The vaccine usually becomes available around September and is offered throughout the flu season. Protection begins about 2 weeks after you get the flu shot and lasts at least 6-8 months. It is necessary to receive the seasonal flu shot each year in order to be protected from the current flu viruses.

Is there anyone who should not receive the influenza vaccine?

Yes. Anyone with an allergy or hypersensitivity to eggs should not receive the flu shot because the components are grown in eggs and an allergic reaction can occur in people with an egg allergy. In addition, anyone who has had a reaction from a flu shot in the past should talk with her doctor before receiving the vaccine.

Are there any negative side effects of which I should be aware?

Significant side effects from the flu shot are rare. The most common minor side effect that can occur is redness or soreness at the site of injection.

What about thimerosal in the vaccine? Is it safe?

Thimerosal is a preservative which it used to help keep potentially harmful bacteria out of the flu shot. It is found in some vaccines in very small amounts. Although some people have concerns about thimerosal, there has been no evidence, even in large studies, of any harmful effects. Pregnant women can safely receive vaccines containing thimerosal.

If you still wish to avoid thimerosal, flu vaccines that do not contain thimerosal may be available. These vaccines are made in a way that the preservative does not need to be used. It is recommended that all pregnant women receive the flu shot with or without thimerosal.

My due date is only a couple weeks away. Do I still need to get the flu shot?

Yes. It is important to protect yourself from getting sick both during your pregnancy and after your baby is born. Getting vaccinated during your pregnancy may also help protect your baby from getting sick during the first six

months of life. This is especially important because infants less than 6 months of age cannot receive the flu vaccine.

I am a nurse. Is it OK for me to give my patients the nasal spray flu vaccine while I am pregnant?

Yes. You do not need to take any special precautions. Always practice good hygiene and wash your hands or use an alcohol-based hand sanitizer before and after giving the vaccine.

The father of my baby just got the nasal spray flu vaccine. Is it OK for me to be around him while I'm pregnant?

Yes. Pregnant women can be in close contact with others who have gotten the nasal spray vaccine.

I just found out I was pregnant when I got the nasal spray flu vaccine. How concerned should I be?

There have been no studies looking at use of the nasal-spray flu vaccine during pregnancy. Because of the lack of pregnancy information, the theoretical concern with live viruses, and the availability of the flu shot, the nasal-spray vaccine is not recommended for pregnancy. However, there is no documented risk. Since the flu itself doesn't cause birth defects, it is unlikely that the accidental use of the nasal spray vaccine during pregnancy will be associated with birth defects.

Can I receive the influenza vaccine while I am breastfeeding?

Yes. Breastfeeding women can receive the injected or the nasal spray form of the vaccine. Getting the vaccine while breastfeeding can help prevent you from getting sick and passing the illness to your baby. This is especially important if your baby is less than 6 months of age and cannot yet receive the flu vaccine.

OTIS is currently conducting the [OTIS Vaccines and Medications in Pregnancy Study \(VAMPSS\)](#). The purpose of the study is to learn more about influenza vaccines and antiviral medication use in pregnancy. If you are pregnant and have received the influenza vaccine or taken an antiviral medication to prevent or treat the flu (including Tamiflu® or Relenza®), and you are interested in learning more about this study, please contact the OTIS VAMPSS Coordinating Center at 877-311-8972.

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References available upon request.

If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.