Seasonal Influenza Vaccine (Flu Shot) during Pregnancy

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to the seasonal influenza vaccine may increase the risk for birth defects above that background risk. This information should not take the place of medical care and advice from your healthcare professional.

What is influenza?

Influenza, or the “flu” as it is commonly called, is an infection of the respiratory (breathing) tract. 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.

Why is influenza a concern for pregnant women?

Even if you are a very healthy woman, when you are pregnant your body has a much 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. Serious complications can occur in all three trimesters of pregnancy. For more information, 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 miscarriage or 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 six months old, vaccinating the mom and other caregivers may help protect the baby from catching the flu.

Why is H1N1 a concern for the developing baby?

The H1N1 flu first appeared in the United States in April 2009. Since few people had any immunity to it, H1N1 spread from person to person around the world, even during summer months. It was known as a pandemic flu.

Unlike seasonal flu, the chance of catching H1N1 is highest in people who are less than 65 years old. Young children, pregnant women, people with underlying medical conditions and those over age 65 are all at increased risk for severe complications from H1N1 flu.

What is the seasonal influenza vaccine?

The injected seasonal influenza vaccine (flu shot) is an inactivated virus vaccine. This means that it is noninfectious and cannot give a person the flu. 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, and is based on which strains will be circulating during flu season. 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 flu vaccine is not recommended during pregnancy.

What is the H1N1 vaccine?

In 2010, the seasonal flu vaccine was reformulated to include protection to H1N1, so that there was only one recommended flu vaccine instead of two. Flu vaccines produced since that time continue to offer protection against this strain.

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.

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

The nasal spray vaccine is at least equally as effective as the injected form of the flu vaccine but contains a minute amount of weakened active virus ("live vaccine"). To avoid any risk of infection, pregnant women are advised to avoid live vaccines. However, getting the nasal spray formulation should not increase the risk of having a baby with a birth defect, nor of experiencing pregnancy complications. See your health care provider right away if you experience any symptoms of influenza.

Can I 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 involving thousands of women who have received the flu shot just before or during pregnancy have found no increased risk for birth defects.

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.

When should I receive the flu vaccine?

To provide protection throughout the flu season, it is important to receive the vaccine as soon as it becomes available. The vaccine usually becomes available in September and is offered throughout the flu season. Protection begins about two weeks after you get the flu shot and lasts at least six to eight months. It is necessary to receive the seasonal flu vaccine each year in order to be protected from the current flu viruses.

Is there anyone who should not receive the flu vaccine?

Anyone who has had a reaction from the flu shot in the past or who has an allergy or hypersensitivity to eggs should speak with their healthcare provider before receiving the vaccine. In rare cases, it may not be recommended for someone to get the flu shot because of the possibility of a severe allergic reaction.

Is thimerosal in the vaccine safe?

Thimerosal is a preservative, which is used to help keep potentially harmful bacteria out of the flu shot. It is found in large vials of vaccine used to hold multiple doses of vaccines. Single-dose vaccines do not contain thimerosal. While some people have concerns about thimerosal, it has been well studied and there has been no evidence of any harmful effects. Pregnant women can safely receive vaccines containing thimerosal.

If you still wish to avoid thimerosal, talk to your healthcare professional about getting a single-dose flu vaccine.

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. Can I be around him while I’m pregnant?

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

Can I receive the flu vaccine while 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.

OTIS is currently conducting the OTIS Vaccines and Medications in Pregnancy Study (VAMPSS) to learn more about flu vaccines and antiviral medication use in pregnancy. If you are pregnant and have received the flu vaccine or taken an antiviral medication to prevent or treat the flu, 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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If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.