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 flu shot may increase the risk for birth defects over that background risk. This fact sheet also provides a summary of information for breastfeeding mothers. This information should not take the place of medical care and advice from your healthcare provider.

**What is influenza?**
Influenza is commonly called the “flu”. It is an infection of the respiratory (breathing) tract. The symptoms of the flu are fever, headache, chills, muscle aches, cough, congestion (stuffy nose), runny nose, sore throat, and feeling tired (fatigue). Influenza sometimes causes vomiting and diarrhea. The typical flu season is from October through March of each year. The types (strains) of viruses that cause seasonal influenza change a little bit each year.

**Why is the flu a concern for pregnant women?**
Even if you are healthy, when you are pregnant, your body has a harder time fighting infections than when you are not pregnant. The flu can cause severe disease in women who are pregnant, such as respiratory distress (severe breathing problems) and even death. These complications can occur in any trimester of pregnancy. For more information, see the MotherToBaby fact sheet on Seasonal Influenza (the Flu) at https://mothertobaby.org/fact-sheets/seasonal-influenza-the-flu-pregnancy/pdf/.

**Why is the flu a concern for the developing baby?**
While having the flu while pregnant does not appear to cause birth defects, symptoms of the flu such as a high fever could affect the developing baby. For more information, see the MotherToBaby fact sheet on Seasonal Influenza (the Flu) at https://mothertobaby.org/fact-sheets/seasonal-influenza-the-flu-pregnancy/pdf/. Women who get very sick from the flu may be at increased risk for pregnancy complications such as miscarriage or premature delivery.

Like women who are pregnant, 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 mother and other caregivers may help protect the baby from getting the flu.

**What is the seasonal flu vaccine?**
The injected seasonal influenza vaccine (flu shot) is an inactivated virus vaccine. This means that the shot cannot cause you to get the flu. Studies have shown that the flu shot can prevent flu illness by about 50% to 60% among the overall population. The mixture of viruses in the flu shot is updated every year to include the main strains projected to be common for the upcoming flu season. It is necessary to receive the flu shot each year in order to be protected from the current flu strains.

In 2010, the seasonal flu vaccine was changed to include protection to H1N1 virus. This was done so that there was only one recommended flu vaccine instead of having the H1N1 vaccine as a second required shot. Flu vaccines produced since that time offer protection against this strain.

While a nasal-spray influenza vaccine (FluMist®) may also available, it is not recommended for use during pregnancy. Unlike the flu shot, this vaccine contains a live, but weakened, virus (live attenuated influenza vaccine).

**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 at any time during pregnancy.

**I just found out I was pregnant when I got the nasal spray flu vaccine. How concerned should I be?**
Typically, the nasal spray vaccine is at least equally as effective as the injected form of the flu vaccine but contains a tiny amount of weakened active virus (“live vaccine”). In general, women who are pregnant are advised to avoid live vaccines. However, getting the nasal spray should not increase the risk of having a baby with a birth defect or experiencing other pregnancy complications. See your healthcare provider right away if you have any symptoms of the flu.

Can I receive the flu shot while I’m pregnant?

Yes. Women who are pregnant (whether in their first, second, or third trimester) or planning to become pregnant are recommended to get the seasonal flu shot given by injection. The nasal-spray flu vaccine is not recommended during pregnancy.

In the United States the flu shot has been given to women who are pregnant since the 1960s. Studies of thousands of women, from around the world, who have received the flu shot just before or during pregnancy have found no increased risk for birth defects, other pregnancy complications such as preterm birth or low birth weight, or poor health of child after delivery.

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 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 shot each year in order to be protected from the current flu virus.

Is there anyone who should not receive the flu vaccine?

In the past, some people with allergy or hypersensitivity to eggs were told to avoid the flu vaccine. Newer recommendations state that everyone older than six months of age should receive a flu shot. This is because there are vaccines that do not contain egg protein. In addition, the vaccines with egg have such a tiny amount of egg protein that egg allergy isn’t likely to be provoked in response to vaccination. However, anyone with a severe, life-threatening allergy to any of the vaccine ingredients should discuss the vaccine with their health care provider first.

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 small amounts in the large vials of vaccine used to hold several doses of vaccine. Single-dose vaccine vials 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 health care provider about receiving the single-dose 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. 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. Women who are breastfeeding can receive the injected form of the vaccine. Receiving the flu vaccine while breastfeeding can help prevent you from getting sick and passing the illness to your baby. Be sure to talk to your health care provider about all your breastfeeding questions.

Please click here for references.

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