

Flu Vaccine Safety and Pregnancy



Dr. Sara Saedi
Gynecologist
Fellowship of infertility

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Why should pregnant people get a flu shot?

- ▶ Pregnant women and their babies are at increased risk for influenza-related complications.
- ▶ Pregnant women are also more likely to be hospitalized with flu

Flu vaccine

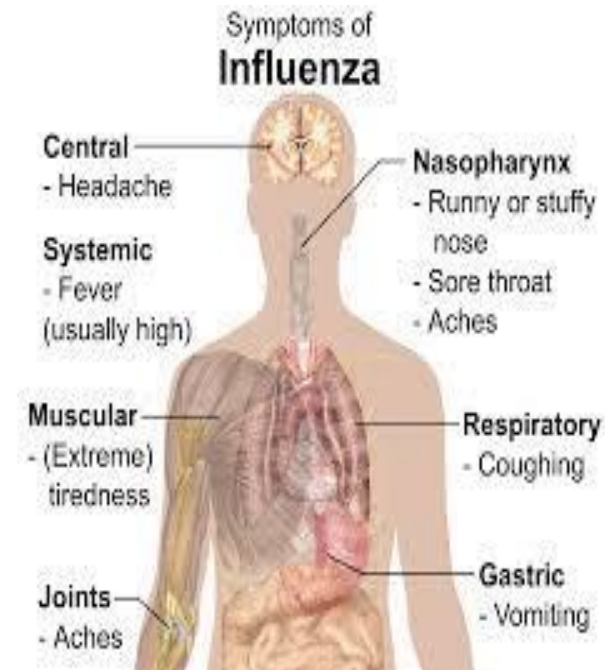
- ▶ The **first** and most important step for flu prevention
- ▶ Treatment with **flu antiviral drugs** is our **second** line of defense against flu

Influenza

- ▶ Influenza virus **types A and B** are common causes of acute respiratory illness.
- ▶ Influenza A viruses are the principal cause of epidemics and worldwide pandemics

Symptoms

- Sudden onset of fever
- Cough (usually dry)
- Headache
- Muscle pain(Myalgia)and joint pain
- Sore throat
- Shortness of breath
- Rhinorrhea
- Malaise



High risk symptoms:

HIGH RISK

- ▶ Dehydration
- ▶ Difficulty breathing/shortness of breath
- ▶ Chest pain
- ▶ Mental status changes
- ▶ Obstetric complications,
- ▶ These patients should be referred immediately to an **emergency department** or equivalent setting for evaluation, possible admission, and treatment

Flu complications

- ▶ Pneumonia
- ▶ bronchitis
- ▶ sinus infections
- ▶ ear infections

Increased severity of influenza in pregnancy

- ▶ Heart rate and oxygen consumption increase
- ▶ Lung capacity decreases
- ▶ Shift away from cell-mediated immunity



Influenza in the pregnancy

- ▶ Increased risk for spontaneous abortion
- ▶ Preterm delivery
- ▶ Low birth weight
- ▶ Birth of a small for gestational age infant
- ▶ Fetal death

- ▶ Increased risk of congenital abnormalities
- ▶ Cleft lip
- ▶ LBW
- ▶ Neural tube defects
- ▶ Hydrocephaly
- ▶ Congenital heart defects

Comorbidities

- ▶ Chronic cardiac
- ▶ Pulmonary disease
- ▶ Diabetes mellitus
- ▶ Chronic renal diseases
- ▶ Malignancy
- ▶ Immunosuppression
- ▶ Increase the risk of complications in pregnant patients.

Seasonal flu epidemics

- ▶ During winter, October to March in the northern hemisphere
- ▶ April to September in the southern hemisphere
- ▶ In tropical and subtropical countries, seasonal influenza can happen all year round



Why should pregnant people get a flu shot?

- ▶ Influenza (flu) is more likely to cause **severe illness** in pregnant
- ▶ Changes in the **immune system, heart, and lungs** during pregnancy make pregnant people (and people up to two weeks postpartum) more prone to severe illness from flu, including illness resulting in **hospitalization**.
- ▶ Flu also may be harmful for a pregnant person's **developing baby**.
- ▶ A common flu symptom is **fever**, which may be associated with **neural tube defects** and other adverse outcomes for a developing baby. Getting vaccinated also can help protect a baby after birth from flu (the pregnant parent passes antibodies)
- ▶ **A Flu Vaccine is the Best Protection Against Flu**



Is it safe for pregnant people and their developing babies to get a flu shot?

► Yes

-Flu shots have been given to millions of people over many years with an excellent safety record.

-Flu shots given during pregnancy help protect both the pregnant parent and the baby from flu during any trimester of their pregnancy.



Yes!

Which vaccine is the best?

Pregnant women should get a flu shot

NOT

the live attenuated vaccine (LAIV)

Or

nasal spray



Benefits of vaccination

- ▶ Reduce the risk of flu-associated **acute respiratory infection** in pregnant people by up to **one-half**.
- ▶ Reduced risk of being **hospitalized** 40 percent
- ▶ Vaccination helping to **protect their babies** for the first several months after their birth



Best time for vaccination

- ▶ Annual influenza vaccination is recommended for all persons aged ≥ 6 months who do not have contraindications, including pregnant and postpartum patients
- ▶ September and October are generally good times to be vaccinated

Can flu vaccination result in miscarriage?

- ▶ Multiple studies have shown that people who have received flu shots during pregnancy have not had a higher risk for spontaneous abortion (miscarriage).



ACOG and CDC recommend flu vaccination

- ▶ Pregnant people get a flu vaccine during **any trimester** of their pregnancy because flu poses a danger to pregnant people and a flu vaccine can prevent serious illness and hospitalization, during pregnancy

What side effects have pregnant people experienced from flu shots



- ▶ Soreness, redness, and/or swelling from the shot
- ▶ Headache
- ▶ Fever
- ▶ Muscle aches
- ▶ Nausea
- ▶ Fatigue
- ▶ If side effects occur, they usually begin soon after the shot is given and generally last for 1-2 days.

Severe allergic reactions

- ▶ Anyone with a severe, life-threatening allergy to any of the vaccine ingredients **should not get the shot.**



Can pregnant people with egg allergies get vaccinated?

- ▶ Pregnant people should tell the person giving the shots if they have any severe allergies or if they have ever had a severe allergic reaction following a flu shot.

Should not get the shot.



How is the safety of flu vaccines in pregnant people monitored?

- ▶ The benefits of flu vaccination will still vary, depending on characteristics of the person being vaccinated for example, their **health and age**
- ▶ **CDC and FDA** monitor flu vaccine safety during pregnancy during each flu season

Can a breastfeeding person get a flu vaccine?

- ▶ Yes
- ▶ People who are breastfeeding should get a flu vaccine
- ▶ Getting vaccinated reduces pregnant parents' risk of getting sick and of passing the flu on to their babies
- ▶ especially important for children younger than 6 months old since they are too young to receive flu vaccine themselves.



Thanks

