



For more information about the Organization of Teratology Information Specialists or to find a service in your area, call (866) 626-6847 or visit us online at: [www.OTISpregnancy.org](http://www.OTISpregnancy.org).

## Antiviral Medications to Treat/Prevent Influenza (Flu) during Pregnancy

This sheet talks about the risks that exposure to antiviral medications to treat or prevent influenza 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 are antiviral medications and what do they do?***

Antiviral medications reduce the ability of some influenza viruses to multiply. When used within 48 hours of the start of symptoms of influenza (the “flu”), these medications can lessen the symptoms and reduce the risk of serious illness. Some of these medications may also be used to prevent infection with influenza.

The symptoms of influenza are fever, headache, chills, muscle aches, coughing, congestion, runny nose, and sore throat. Some people can also have stomach upset with vomiting and diarrhea.

### ***Which antiviral medications are used to treat or prevent the flu?***

There are four antiviral medications currently approved in the U.S. for influenza prevention and treatment: amantadine (Symmetrel®), rimantadine (Flumadine®), oseltamivir (Tamiflu®), and zanamivir (Relenza®). The medicine your doctor gives you will depend on which type of influenza is most likely making you sick.

The 2009 H1N1 flu (formerly called the swine flu) responds only to oseltamivir or zanamivir. For more information about the 2009 H1N1 flu and pregnancy, see the OTIS fact sheet [H1N1 Flu and Pregnancy](#) and visit the Centers for Disease Control and Prevention (CDC)'s website at <http://www.cdc.gov/h1n1flu/pregnancy>.

### ***Can I skip getting the flu vaccine during my pregnancy and just take one of these medications if I happen to get sick?***

No. Antiviral medications are not a substitute for the flu vaccine. Pregnant women are

at an increased risk for complications from the flu. Women who are pregnant or planning to become pregnant should get the injected form of the flu vaccine (flu shot). Pregnant women should not get the nasal-spray form of the influenza vaccine. For more information about the seasonal flu vaccine and pregnancy, see the OTIS fact sheet [Seasonal Influenza and the Vaccine during Pregnancy](#).

The seasonal flu vaccine does not protect against H1N1 flu. It is important that pregnant women get *both* the seasonal flu vaccine *and* the H1N1 flu vaccine. For more information about the H1N1 vaccine and pregnancy, please see the OTIS fact sheet [H1N1 Flu Vaccine during Pregnancy](#).

### ***Can taking an antiviral medication during pregnancy cause a birth defect?***

Limited information indicates that antiviral medications do not increase the risk for birth defects over the background risk that exists for every pregnancy.

The manufacturer of oseltamivir reported no increase in birth defects or pregnancy complications among 61 women who used the medication during pregnancy. In addition, there was no increase in birth defects in 90 women who took oseltamivir in the first trimester and spoke to a teratology information service.

There is less information available about the safety of the other antiviral medications during pregnancy. There are only a few case reports of zanamivir use in pregnancy. Zanamivir is given by inhalation. This limits the amount of the medication that gets into your bloodstream. For this reason, zanamivir may have less risk of crossing the placenta and getting to the developing baby. However, this also means that zanamivir may be less effective than oseltamivir.

Limited information from animal and human studies does not suggest an increased risk for birth defects or pregnancy complications when amantadine or rimantadine are used in pregnancy.

***I am pregnant and think I may have the H1N1 flu. Should I talk to my doctor about antiviral medication?***

Yes. Pregnant women appear to be at an increased risk for complications from the seasonal and H1N1 flu. Some of these complications can put both the mother's and her developing baby's health at risk. Taking an antiviral medication within 48 hours of your first symptoms can reduce the chance that you will have severe complications. The CDC states that pregnant women with confirmed or suspected H1N1 infection can be treated with oseltamivir or zanamivir, but that oseltamivir is preferred because more of this medication is absorbed into the system.

If you have symptoms of the flu you should talk to your doctor as soon as possible. Antiviral medications are most effective when they are taken within 2 days of becoming sick. They may still be helpful when they are started later than this, so talk to your doctor even if you have already been sick for more than 2 days.

***I am pregnant and my husband has the flu. Should I take oseltamivir so that I don't get sick?***

Talk with your doctor if you have been in close contact with someone who has the flu. Because pregnant women are at an increased risk for complications from the flu, some women may benefit from taking antiviral medications to prevent getting the flu after they have been exposed. Your health care provider can help you decide whether taking an antiviral medication for flu prevention is best for you.

Be sure that you and others around you are doing the following to help prevent spread of the flu:

- Wash your hands with soap and water frequently
- Avoid touching your eyes, nose, or mouth
- Try to avoid close contact with sick people
- Cover your nose and mouth when you cough or sneeze
- Stay home and avoid close contact with others if you are sick

***I am breastfeeding and have just come down with the flu. Can I take one of the antiviral medications to shorten the number of days that I will be sick?***

Oseltamivir is found in breast milk in very low amounts and is not likely to be harmful to the breastfed infant. Zanamivir is given by inhalation. This limits the amount of the medication that gets into your bloodstream. For this reason, zanamivir is unlikely to enter breast milk in high amounts and probably would not affect a breastfed infant. There are no studies looking at amantadine and rimantadine during breastfeeding. It may be best to avoid using amantadine while breastfeeding as it can reduce milk supply. As with any medication during pregnancy or breastfeeding, you should discuss the risks and benefits with your health care provider.

*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 seasonal influenza vaccine, the H1N1 vaccine, or have 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.*

**October 2009.**

Copyright by OTIS.

Reproduced by permission.



**Selected References:**

Centers for Disease Control and Prevention. Updated interim recommendations obstetric health care providers related to use of antiviral medications in the treatment and prevention of influenza for the 2009-2010 season [Cited 2009 September 24]. Available at URL: [http://www.cdc.gov/H1N1flu/pregnancy/antiviral\\_messages.htm](http://www.cdc.gov/H1N1flu/pregnancy/antiviral_messages.htm).

Laibl VR and Sheffield JS. 2005. Influenza and pneumonia in pregnancy. Clinics in Perinatology 32:727-738.

Neuzil KM, et al. 1997. Impact of influenza on acute cardiopulmonary hospitalizations in pregnant women. Am J Epidemiol 148:1094-1097.

Rosa F. 1994. Amantadine pregnancy experience. Reprod Toxicol 8:531.

Wentges-van Holthe N, et al. 2008. Oseltamivir and breastfeeding. Int J Infect Dis 12:451.

Widelock D, et al. 1963. Influenza, pregnancy, and fetal outcome. Public Health Reports 78:1-11.

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