

FLU SEASON AND LIVING WITH HIV

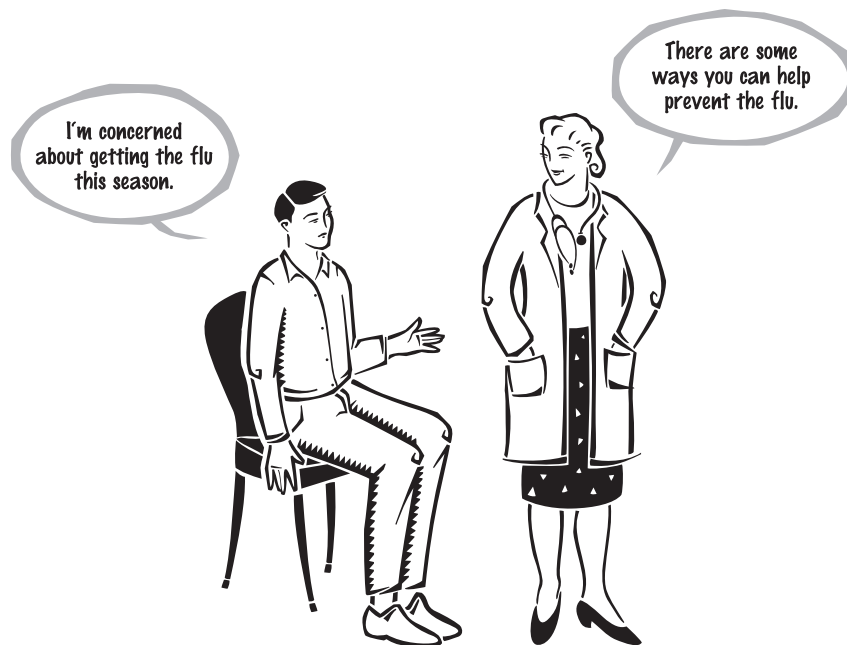


explore different ways
to prevent the common flu

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Influenza, or simply the flu, is a serious respiratory infection that makes hundreds of thousands of Americans ill each year. It can cause many complications for people with damaged immune systems, including people living with HIV.

Despite improved prevention and treatment, the flu still causes 36,000 deaths in the US each year. This publication provides an overview of seasonal flu disease with a focus on preventing the illness. For more complete information on H1N1 flu, read Project Inform's publication, *Novel H1N1 and concerns for people living with HIV* available at www.projectinform.org/info/h1n1/index.shtml.

What is the flu?

The flu virus is quite common, highly contagious and very prone to changing itself. There are three categories of flu viruses: type A, B and C. All three can change into new strains, though type A mutates often and causes most of the illness in the US.

Two important proteins on the surface of the virus readily change, or *mutate*. These are called *haemagglutinin* (H) and *neuraminidase* (N). Strains of type A are named by the different versions of these proteins. For example, the *avian flu virus* is called H5N1, because it has haemagglutinin 5 and neuraminidase 1 on its surface.

You cannot develop a lifelong immunity to influenza because the virus is constantly changing. Even if you are protected against a flu virus one year, you may not be protected from a new strain the next year.

The flu virus originates in birds and often infects pigs, where it mutates into new strains. This is why new flu shots are required each year. Most Americans get flu shots in October and November. However, the flu season can last as late as May, so getting vaccinated later is a wise choice for some.

Each year researchers try and predict the most likely strains of influenza to hit the US. Sometimes, different strains show up rather than what was predicted. Depending on how serious an illness they produce, new vaccines may be rushed into production. For the 2009–2010 flu season, the vaccines for the following three strains were approved by the FDA:

- Type A: Brisbane/59/2007 (H1N1)-like virus;
- Type A: Brisbane/10/2007 (H3N2)-like virus; and
- Type B: Brisbane/60/2008-like virus.



What are the symptoms?

Many people talk about having the flu when in reality it's just a cold. (The term *stomach flu* is somewhat inaccurate because the flu virus doesn't affect the stomach, though some people may feel it does.) Both illnesses are caused by viruses. Here are some ways to help tell the difference between them.

Colds tend to be less severe than the flu, come on slowly and last only a few days, usually less than a week. Common symptoms are sore throat, sneezing, coughing, runny nose and congestion. Older children and adults rarely get more than a mild fever, if at all.

Flu symptoms usually come on suddenly. They may include a high fever, body aches, extreme fatigue, headache, cough, sore throat and chills. Symptoms start to develop from one to four days after being infected with the virus and often last 1–2 weeks or longer. Headaches may appear at the start of a fever. Stomach problems are rare, but they may occur in young children.

Since the flu can lead to other respiratory illnesses like pneumonia, it's important to seek medical help if your symptoms become worse. This includes having an extremely high fever, a fever lasting more than three days, trouble breathing, symptoms that do not improve or become worse, or a severe headache or stiff neck. Also, if your *mucus* (the fluid from your nose or chest) becomes bloody or changes color, this may indicate a new condition that needs to be looked at.

How do you get the flu?

The flu virus is highly contagious, which means it's easy to get from someone else. The virus is passed from person to person by breathing in droplets that contain the virus from the air. Other ways include having direct contact with infected fluids from the mouth, nose and eyes or handling items touched by an infected person. This includes kissing, drinking from someone else's glass or sharing hand towels, among many others.

Who is at risk for the flu?

Everyone is at risk for getting the flu. However, people with certain medical conditions, such as heart disease or weakened immune systems or those with respiratory problems, are more at risk. These individuals also have a greater chance for having more severe symptoms. People who have frequent contact with others, such as in rest homes, hospitals, day cares or schools, are also at higher risk.



How do you diagnose the flu?

In most cases, doctors diagnose the flu simply by the symptoms you have, especially when they occur during a peak flu season. Blood tests (rarely used) and cultures from the throat or nose can be used to identify the virus. Cultures may take up to two days for a result, which may not help your doctor decide on the proper treatment. The *rapid flu test* gives results in a half an hour, though the test is not 100% accurate.

How do you prevent the flu?

Getting vaccinated against the flu before the flu season starts is one of the best ways to help prevent specific strains of the illness. However, some people choose not to get flu shots for various reasons. Even if you do get one, there are many ways to reduce your chances of getting the flu. For more information, read the section *What about flu shots?*.

One simple and effective way is to wash your hands with soap and warm water regularly. If they're not available, using hand sanitizers with alcohol can keep your hands clean. Since the flu is passed through the air, avoiding crowds and contact with people who have the flu will help. Also, avoid people who sneeze and cough.

Keeping your hands away from your face will also help reduce the number of infections. Infections often occur when you touch your hands to your mucus membranes, like those in your mouth, nose and eyes.

Another way to prevent infection is by not coming into contact with surfaces that others have touched, especially in public areas like a bus or restroom. Handling toys, handrails, doorknobs, phones, counters and even money that was touched by someone with the flu can expose you to the virus. Some people go as far as using a paper towel to turn off the tap and open a public restroom door.

How do you treat the flu virus?

Taking medicine to prevent or reduce the severity of the flu is called *chemoprophylaxis*. Two drugs are used this way, called *neuraminidase inhibitors*: Relenza (zanamivir) and Tamiflu (oseltamivir). Relenza is inhaled through the mouth and may be difficult to take for people with lung disease or who smoke. Tamiflu is taken by mouth as a capsule or as a powder for drinking. Relenza has been safely tested in older children and adults. Tamiflu has been studied in adults and infants over one year of age.



Very little data exist on using either drug in people with HIV. However, using them may help control the spread of the flu during an outbreak. One six-week nursing home study of Tamiflu found the flu was reduced by 92% among its residents. In other studies, the risk for getting bacterial or viral pneumonia — common and dangerous complications of the flu — was reduced by half for those taking Tamiflu compared to placebo. Symmetrel (amantadin) and Flumadine (rimantadine) have also been used this way.

It's important to work with your health care provider to decide if and when chemoprophylaxis is right for you. The CDC recommends close monitoring while taking these medicines. And, if a person has frequent contact with the public, a doctor may prescribe this type of drug during the two weeks after being vaccinated. This helps protect a person while the vaccine creates antibodies to the flu.

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How do you treat flu symptoms?

Treating the flu also means reducing your symptoms and making yourself feel comfortable. Taking medicines will not rid your body of the virus, but they can help improve your symptoms both for how much and for how long you feel them.

If you think you may have the flu, stay home, get enough rest, and check with your health care provider as needed. If you go to a clinic, emergency room or doctor's office, tell the receptionist that you may have the flu and ask for a mask. This helps reduce passing it onto others.

Getting enough rest is important for recovering from the flu. Drinking plenty of fluids will help replace those lost from a fever. Drinking various drinks like water, fruit juice, and clear soups or warm drinks like tea with lemon are all good choices.

To relieve fever, body aches and headache, taking *acetaminophen* or *ibuprofen* helps. Sponging your body with lukewarm water can also help reduce fever. For a stuffy nose, breathing moist air from a hot shower can help. Using a decongestant or nasal spray with *phenylephrine* in it can help clear or dry up a stuffy nose. If your nasal drainage is thick, the ingredient *guaifenesin* may help keep it thin. Antihistamines are discouraged as they do not treat flu symptoms and may even make your drainage thicker. As with all medicines, follow the directions for their use or talk to a pharmacist.

Cough drops or plain, hard candy can help ease coughing. Over-the-counter medicines with *dextromethorphan* in them can help ease a dry, hacking cough. Beware of cough medicines since some have a high content of alcohol. If you have difficulty sleeping, raise your head at night with an extra pillow if coughing or stuffy breathing keeps you awake. Avoiding smoking and breathing secondhand smoke will also help you breathe.

Some people believe taking antibiotics will help treat their symptoms or cure the flu. Antibiotics are used to treat bacterial infections, not viral infections like the flu. However, they may be used to treat a bacterial infection at the same time as the flu.

What about flu shots?

Getting a flu shot will help protect and/or reduce the symptoms of specific strains of the flu. It takes about two weeks for your body to become protected by making antibodies to it.

Some people may feel fatigue and muscle ache

from the shot, which is due to the immune system responding. Flu shots do not give you the flu.

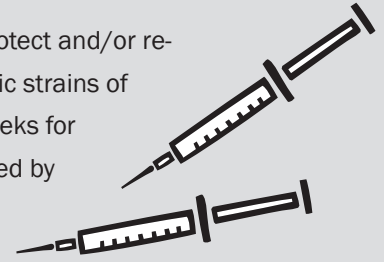
People with CD4 cell counts below 200 may have a weaker antibody response to a flu shot. However, many experts still recommend those at high risk for flu complications get vaccinated. The Centers for Disease Control (CDC) recommends flu shots for the following people at high risk for complications from the flu:

- children six months to six years old
- pregnant women or women who are planning a pregnancy during flu season
- people with chronic medical conditions such as diabetes, asthma, heart disease and HIV/AIDS
- people 50 years and older
- people who live, work or volunteer in health care facilities
- people with close contact with someone in a high-risk group

Some people are not recommended to get a flu shot, such as those with a severe allergy to hens' eggs or a history of onset of *Guillain-Barre Syndrome* shortly after getting another vaccination. It's recommended that people living with HIV (or other immune suppression) should not get the live virus flu vaccine sold as *FluMist*. Although no firm data exist, some recommend avoiding close contact for two weeks with those who have taken FluMist to avoid possible exposure to the live virus. In general, healthy people between 5 and 49 years of age can use FluMist.

A flu vaccine clinic locator is available online from the American Lung Association. Visit www.flucliniclocator.org to enter your zip code and date and then receive information about clinics scheduled in your area.

For more information about the flu and living with HIV, call Project Inform's HIV/AIDS Treatment Information Hotline at 1-800-822-7422.



Concerns for people living with HIV

HIV impairs the body's ability to fight infections, like the flu or common cold. People with HIV are more likely to get complications from the flu, such as pneumonia. They are also at higher risk of dying from the flu. Therefore, people living with HIV are considered a priority group to get a flu shot in order to prevent or lessen complications from the flu, particularly heart and lung problems.

HIV levels may increase during the four weeks after getting a flu shot. If you're living with HIV, plan your routine blood draws and flu shots carefully. It's recommended that people living with HIV (or other immune suppression) **should not get** the live virus flu vaccine sold as *FluMist*.

Concerns for pregnant women



It's important to prevent the flu during pregnancy, as it can last three times longer in pregnant women. Being pregnant can also increase your risk for getting other complications from the flu, such as pneumonia. However, catching a cold or the flu during pregnancy rarely causes birth defects.

The best way to prevent the flu is by getting a flu shot, and by following the personal habits described in *How do you prevent the flu?*. The flu shot is safe to get while you're pregnant, though it may be wise to get it before becoming preg-

nant since some women feel fatigue and muscle aches from the shot. The flu shot is also safe to get while you're nursing. However, getting the nasal flu vaccine is not recommended as it's a live virus and has not been tested in pregnant women.

Many flu and cold medicines have not been well studied in pregnant women. Some flu medicines to avoid during pregnancy include Tamiflu, Flumadine, Relenza or Symmetrel. These drugs may cause a small increase in the risk of birth defects. Taking aspirin may cause bleeding. Taking ibuprofen hasn't been studied in pregnant women. *Acetaminophen* is the recommended medicine for pain and fever. Women should check with their doctors before taking any over-the-counter or prescription medicine when they're pregnant.

Concerns for children and people over 50

Flu shots are recommended for people 50 years of age and older. This helps protect from developing more serious symptoms as well as complications from the flu.

Both influenza type A and B have been linked to *Reye's Syndrome*, a possibly fatal complication that usually affects children under 18. The

risk for the condition is increased when taking aspirin. It's strongly recommended that children should not take aspirin products during a viral illness like the flu or chickenpox.

Children under 6 months of age should not get the flu vaccine. Cough and cold medicines should not be given to children younger

than two unless a doctor has said so. If your child's doctor tells you to give a medicine, be sure to follow what he or she tells you to do.

