



This article was produced in collaboration with the the Public Health Agency of Canada.

INFLUENZA (THE “FLU”)

The Issue

Influenza (or flu) is a common respiratory illness affecting millions of Canadians each year. Getting an influenza vaccination (or flu shot) every year can help prevent the infection or reduce the severity of the illness.

Background

Influenza is a respiratory infection caused by the influenza virus. Various strains of the virus circulate throughout the world year-round, causing local outbreaks. In Canada, flu season usually runs from November to April and an estimated 10–25% of Canadians may get the flu each year. Although most of these people recover completely, an estimated 4,000 to 8,000 Canadians, mostly seniors, die every year from pneumonia related to flu and many others may die from other serious complications of flu.

The influenza virus spreads through droplets that have been coughed or sneezed into the air by someone who has the flu. You can get the flu by breathing in these droplets through your nose or mouth, or by the droplets landing directly on your eyes. The flu virus is also found on the hands of people with the flu and on surfaces they have touched. You can become infected if you shake hands with infected persons or touch contaminated surfaces and transfer the virus to your own eyes, nose or mouth.

Flu vaccines have been around since the 1940s. The vaccine is made from fragments of inactivated influenza viruses, grown in fertilized hens' eggs and then purified. The flu viruses are capable of changing from year to year, so the composition of the vaccine has to be updated annually. This is why it is necessary to be immunized each fall. About 10 million doses of influenza vaccine are distributed annually in Canada each year during the flu season.

After you get a flu shot, your immune system produces antibodies against the strains of virus in the vaccine. The antibodies are effective for four to six months. When you are exposed to the influenza virus, the antibodies will help to prevent infection or reduce the severity of the illness.

The Health Effects of Influenza

Many people use the terms “flu” or “stomach flu” to describe other illnesses that may actually be a common cold or a mild case of food poisoning. There is no such thing as “stomach flu.” A true case of influenza typically starts with a headache, chills and cough, which are followed rapidly by fever, loss of appetite, muscle aches and fatigue, runny nose, sneezing, watery eyes and throat irritation. Children may have nausea, vomiting and diarrhea, but these symptoms are uncommon in adults.

Most people recover within a week or ten days. However, some are at greater risk for more severe and longer-lasting complications, such as pneumonia. The groups at greater risk include very young children, people over 65, and people who already have medical conditions, such as chronic respiratory disease, heart or kidney disease, diabetes or a depressed immune system because of cancer, HIV infection, or some other cause.

Another possible health effect related to the flu is Reye's syndrome, which can develop in children and teenagers who are given salicylates (aspirin) when they have the flu or chickenpox. Reye's syndrome affects the central nervous system and the liver, and can be fatal. Do not give aspirin to children or teenagers with the flu, unless it is specifically directed by a doctor.



Minimizing Your Risk

The most effective way to protect yourself from flu is to be vaccinated each year in the fall. Flu shots are especially important for:

- children ages 6 to 23 months;
- adults and children with chronic heart and lung disease;
- anyone living in a nursing home or chronic care facility;
- people 65 years of age and older;
- people with chronic conditions such as diabetes, anemia, cancer, immune suppression, HIV or kidney disease;
- children and adolescents on long term acetylsalicylic acid (ASA) therapy;
- health care workers, other caregivers and household contacts capable of transmitting influenza to the above at-risk groups;
- people at high risk of influenza complications who are traveling to areas where the flu virus is likely to be circulating.

Certain groups should not be vaccinated. These include children under six months of age and people who have had a severe allergic reaction to eggs or a previous dose of the vaccine.

Regular hand washing is another way to help minimize your risk. By washing your hands often, you will reduce your chance of becoming infected after touching contaminated surfaces.

If you get the flu, you should increase the amount of fluids you drink (water, juice, soups) and get plenty of rest for seven to ten days. There are also new medications to

treat influenza. If you take them within 48 hours of the start of your symptoms, they may reduce the length of your illness by an average of one or two days.

The Health Effects of Flu Shots

The benefits of flu shots far outweigh the risks. The flu vaccine cannot cause influenza because it does not contain any live virus. The most common side effect is soreness at the site of injection, which may last a couple of days. You might also notice fever, fatigue and muscle aches within six to 12 hours after your shot, and these effects may last a day or two. Some people develop a condition called “oculo-respiratory syndrome” after a flu shot. The symptoms include red eyes and respiratory effects such as cough, wheezing, chest tightness, difficulty breathing, or sore throat. In most cases, the symptoms are mild and disappear within 48 hours.

Severe allergic reactions to flu shots are rare. A rare but possible side effect of influenza vaccination is Guillain-Barré syndrome (GBS). This is an autoimmune disease that attacks the nervous system and results in weakness and abnormal sensations. But, most patients recover fully. Your chance of developing GBS as a result of a flu shot is one in a million.

The primary reason to get a flu shot is to protect yourself from health effects related to flu. However, by getting a flu shot, you will also help protect other Canadians and reduce the burden on the health care system.

What is avian influenza or “bird flu”?

Birds and other animals, including pigs, also contract and transmit influenza. Wild birds, in particular, are natural carriers of influenza A viruses. They have carried animal influenza viruses, with no apparent harm, for centuries. Migratory waterfowl (ducks, geese) are known to carry viruses of the H5 and H7 strains or subtypes. These viruses are usually in the low pathogenic form – in other words, they aren't as deadly to birds as highly pathogenic strains.

Currently, avian influenza H5N1 is circulating in South East Asian and parts of Europe, infecting many poultry populations and some humans. This strain is highly pathogenic, or highly deadly to birds, and has infected a limited number of people. There is no evidence this virus is transmitted from person to person.

Why is bird flu a concern for people?

People are exposed to different strains of influenza many times during their lives. Even though the virus changes, their previous bouts of influenza may offer some protection against similar strains of the virus. However, three to four times each century, for unknown reasons, a radical change takes place in the influenza A virus causing a new strain to emerge.

One way this radical change can happen is that a person sick with a human influenza virus also becomes infected with the avian influenza virus and the two viruses re-assort or “mix.” This means that the avian influenza virus acquires some of the human influenza genes, potentially creating a new subtype of the influenza A virus that people would



have no immunity against. If the virus was easily passed to and among people, this would create the conditions for an influenza pandemic.

There is no pandemic influenza at this time anywhere in the world. However, there were three influenza pandemics in the last century and scientists recognize that another is inevitable. That is why governments are planning to prepare to respond to a possible influenza pandemic.

Government of Canada's Role

In Canada, we have a plan for responding to an influenza pandemic. Canada began developing its plan in 1988, long before the threat of the avian H5N1 virus strain was identified as a possible candidate to mix and result in a global pandemic. The Canadian Pandemic Influenza Plan was released in February 2004 and outlines actions to be taken by the various levels of government so that a coordinated response that protects the health of Canadians is implemented in the event of a pandemic. Specifically, it outlines measures to curb infectious disease out-breaks, such as vaccine and antiviral strategies, surveillance, communication and emergency response.

Health Canada, the Public Health Agency of Canada and the Canadian Food Inspection Agency are working collaboratively in consultation with our international partners such as the World Health Organization and the European Centre for Disease Prevention and Control, to monitor the safety of poultry products as it relates to avian flu.

The Public Health Agency of Canada and Health Canada co-ordinate national activities on the prevention and control of flu, including preparations for a worldwide epidemic (or

pandemic) of influenza. In addition, the Public Health Agency of Canada conducts surveillance, along with provincial and territorial health ministries and other partners, to assess influenza activity and its spread across Canada in real time. Health Canada and the Public Health Agency of Canada also regulate the safety of vaccines in Canada and help co-ordinate the procurement of flu vaccines for the provinces and territories. These activities ensure that supplies of safe and effective vaccines are available when Canadians need them.

Need More Info?

For more information contact your local public health department or your health care provider. Or contact:

Public Health Agency of Canada, Immunization and Respiratory Infections Division Web site at : <http://www.phac-aspc.gc.ca/im/index.html>

Also, visit the following Web sites:

Flu Information Web sites at:
Health Canada : http://www.hc-sc.gc.ca/dc-ma/influenza/index_e.html

Public Health Agency of Canada : <http://www.phac-aspc.gc.ca/influenza/index.html>

Avian Flu Information Web sites at:
Health Canada : http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/avian-aviare_e.html

Public Health Agency of Canada : http://www.phac-aspc.gc.ca/influenza/avian_e.html

The National Advisory Committee on Immunization (NACI) at: <http://www.phac-aspc.gc.ca/naci-ccni/>

The Canadian Coalition for Influenza Immunization at: <http://www.immunize.cpha.ca/english/influen1.htm>

The World Health Organization - Influenza, at: <http://www.who.int/csr/disease/influenza/en/>

The It's Your Health article on Reye's Syndrome at: http://www.hc-sc.gc.ca/iyh-vsv/diseases-maladies/reye_e.html

For additional articles on health and safety issues go to the It's Your Health Web site at: www.healthcanada.gc.ca/iyh
You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245*