

# Fact Sheet

This information must not take the place of medical advice, diagnosis or treatment. Always talk to a health care provider before you make any changes to your diet, lifestyle or treatment.

December 2009

## The Seasonal Trivalent Influenza (Flu) Vaccine

### What is influenza?

Influenza (commonly known as "the flu") is a respiratory infection that is caused by a virus. People with the flu quickly become ill with a cough, fever, chills, sore throat, headache, muscle aches and tiredness. Most people are sick for two to seven days, although the cough may last for weeks. In some people, influenza can lead to pneumonia, hospitalization and even death. Influenza spreads easily from infected people to others through coughing and sneezing. It can also be picked-up through direct contact with surfaces and objects, like unwashed hands and toys. This year, up to four influenza viruses may circulate in our community: the three "seasonal" strains, and the pandemic H1N1 strain.

### Who is at increased risk of developing complications and severe illness from seasonal flu?

People of any age can get influenza. The following persons are at increased risk of developing complications and more severe illness as a result of infection with the seasonal influenza viruses:

- Adults and children with chronic medical conditions, such as diseases of the heart, lungs, kidneys, diabetes and other metabolic diseases, blood disorders, cancer, and persons with weakened immune systems.
- Children and adolescents with medical conditions treated for long periods with acetylsalicylic acid (Aspirin™).
- Persons of any age who are residents of nursing homes and other chronic care facilities.
- Persons 65 years of age and older.
- Pregnant women. The risk of hospitalization related to influenza increases as the pregnancy progresses.
- Healthy children aged 6 to 23 months.

### What can I do to prevent seasonal influenza?

The best way to prevent seasonal influenza is to get a seasonal influenza shot each year. The "trivalent" seasonal influenza vaccine, which is produced every year, protects against three strains of the influenza virus: two influenza "A" strains and one influenza "B" strain. The strains in the vaccine often change from year to year, and include the three influenza virus strains that the World Health Organization considers most likely to cause influenza disease during the coming flu season.

### What is the seasonal influenza vaccine and how does it work?

Vaccines are one of public health's most effective tools for preventing serious infectious diseases, and the illness and death caused by these diseases. The seasonal influenza vaccine prepares your body to fight off infection from the three influenza viruses covered by the vaccine. It takes about two weeks after the vaccine is given to build up this protection. The influenza vaccines in Canada cannot cause influenza, because they do not contain the live influenza virus.

The vaccine can prevent influenza illness in about 70 to 90% of healthy children and adults when there is a good match between the virus circulating in the community and the vaccine. It can also decrease cases of pneumonia, hospital admissions and death in the elderly, as well as the number of physician visits, hospitalizations and death in persons under 65 years of age who have "high risk" medical conditions. The vaccine is less effective in older persons and persons whose immune systems are weakened.

### Will the seasonal influenza shot protect me against the pandemic H1N1 virus?

No. A separate pandemic H1N1 influenza vaccine is available to protect against the pandemic H1N1 virus.

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## **If I have had the pandemic H1N1 influenza shot, do I need the seasonal influenza vaccine?**

Yes. The pandemic H1N1 influenza vaccine will only protect you against the pandemic H1N1 virus. It will not provide protection against the three seasonal influenza viruses.

## **The seasonal influenza viruses are not circulating now. Why do I need the seasonal influenza vaccine?**

The flu season runs until April or May, so other strains of influenza may still circulate in Toronto. It is best to get the seasonal flu vaccine before other flu strains begin to circulate so that you have time to build up your immunity.

## **Can I get both the seasonal influenza vaccine and the H1N1 vaccine at this clinic?**

Yes. The vaccines will be given in separate arms using separate needles. It is common for infants and children to receive more than one vaccine at the same time with no impact on the effectiveness of each vaccine.

## **How do the seasonal and H1N1 influenza vaccines differ?**

The H1N1 vaccine and the seasonal influenza vaccine protect against different strains of influenza. They are both made in the same way. The influenza virus is grown in eggs, killed and then purified and made into a vaccine. The seasonal influenza vaccine does not contain an adjuvant (immune booster) but it does contain a small amount of the antibiotic neomycin.

## **How many doses of the seasonal influenza vaccine do I need?**

Because the seasonal influenza viruses change often, it is necessary to get a seasonal influenza shot each year for protection against the influenza strains circulating that year. Adults should receive one shot each year.

Children under nine years of age, who have never been vaccinated with the seasonal influenza vaccine, should receive two doses of the seasonal influenza vaccine at least one month apart. Children under nine years of age, who have received the seasonal influenza vaccine in the past, should receive a single dose.

## **What are the side effects of the seasonal influenza vaccine?**

The influenza vaccine, like any medicine, is capable of causing side effects. Most side effects are mild. Severe side effects and allergic reactions are rare. The most common side effects are soreness, redness or swelling in the area where the shot is given. Fever or muscle aches may occur within 6 to 12 hours after immunization, especially in persons getting the vaccine for the first time, and last one to two days. A small number of people may develop "oculo-respiratory syndrome" (ORS). ORS can cause red eyes, cough, wheeze, chest tightness, difficulty breathing, hoarseness, sore throat and swelling of the face, and occurs within 24 hours of getting the flu shot. Most cases are mild and resolve within 48 hours. In very rare instances (about one in one million doses of vaccine) the influenza vaccine has been associated with a neurological condition called Guillain-Barré Syndrome (GBS) which can lead to muscle weakness and, in rare instances, paralysis.

## **Is the seasonal influenza vaccine safe for pregnant/breastfeeding women?**

The seasonal influenza vaccine is safe for women at all stages of pregnancy and for breastfeeding mothers.

## **Is the seasonal influenza vaccine safe for my young child?**

The vaccine is safe and is recommended for children 6 months of age and older. In particular, healthy children aged 6 to 23 months of age are at higher risk for complications and possible hospitalization as a result of the seasonal influenza, and should receive the seasonal influenza vaccine.

## **Can my child get the seasonal influenza vaccine if they have not had their second H1N1 shot?**

Yes. Getting the seasonal influenza vaccine will not affect your child's response to the H1N1 vaccine. Your child still needs to wait at least 21 days between their two shots of the H1N1 vaccine, regardless of when the seasonal flu vaccine is given.

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## What is in the seasonal influenza vaccine?

The vaccine is made in eggs so it contains some traces of egg protein. There are also traces of formaldehyde and neomycin, an antibiotic, in the vaccine. The vaccine comes in multi-dose vials so a small amount of thimerosal, a mercury based preservative, is added to prevent bacterial contamination of the vaccine. Large published research studies have shown that thimerosal-containing vaccines are safe to use in children, pregnant women and adults.

## Who should not get the seasonal influenza shot?

The following persons should not receive the seasonal influenza vaccine:

- Infants younger than six months of age.
- Anyone with a serious allergy (anaphylaxis) to eggs or egg products. A serious allergic reaction usually means that the person develops hives, swelling of the mouth or throat, has trouble breathing, or develops a sudden drop in blood pressure or shock after eating eggs or egg products.
- Anyone who has a severe allergy to any component of the vaccine, such as neomycin (an antibiotic), thimerosal (a preservative used in the vaccine) or formaldehyde (used to inactivate the influenza virus).
- Anyone who has had a serious allergic reaction to a previous dose of influenza vaccine.
- Anyone who previously had ORS (oculo-respiratory syndrome) with severe lower respiratory symptoms such as wheezing, chest tightness, or difficulty breathing that required hospitalization within 24 hours of receiving the influenza vaccine.
- Anyone who developed Guillain Barré Syndrome (GBS) within 8 weeks of a previous influenza immunization should speak to their health care provider about whether to get the vaccine.

In addition:

- Anyone who is moderately or severely ill with a fever should delay receiving the influenza shot until they feel better (people with a mild cold can still get the vaccine).

## When should I seek medical attention after immunization with the seasonal influenza vaccine?

You should seek medical attention immediately if you believe that you, or someone in your care, have had a reaction to a vaccine.

## What else can I do to protect myself and others from influenza viruses?

You can reduce your chance of becoming infected with influenza viruses if you:

- Wash your hands frequently.
- Cover your nose and mouth with a tissue when you cough and sneeze. If you do not have a tissue, you should cough or sneeze into your sleeve.
- Avoid touching your eyes, nose or mouth.
- Avoid close contact with persons who are sick.
- Stay home when you are sick.

Stay well rested, be physically active, drink plenty of fluids and eat nutritious food.

## Where can I get more information?

- Toronto Public Health: [toronto.ca/health](https://toronto.ca/health) or 416-338-7600
- TeleHealth Ontario: 1-866-797-0000
- Ontario Ministry of Health and Long-Term Care: [health.gov.on.ca](https://health.gov.on.ca)
- Public Health Agency of Canada: [phac-aspc.gc.ca](https://phac-aspc.gc.ca) or 1-800-454-8302