

Population and Public Health Division

Trivalent Inactivated Influenza Vaccines: For individuals 18 years of age and older

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

1. What is influenza?

Influenza is an acute respiratory illness that is caused by a virus. People who get influenza may have a fever, chills, cough, runny nose, sore throat, headache, muscle aches, extreme weakness and fatigue. The elderly may not have a fever.

People of any age can get influenza. Illness due to influenza usually lasts two to seven days, however, the cough and fatigue can persist for several weeks, making the return to full activity difficult. Some people can become very ill, developing complications such as pneumonia and requiring hospitalization. Influenza can be a fatal infection, particularly in older individuals.

Influenza spreads through respiratory droplets from infected persons, for example, through coughing or sneezing. It is also spread through direct contact with surfaces and objects contaminated by the influenza virus, such as toys, unwashed eating utensils and unclean hands.

2. How are individuals protected against influenza?

Influenza vaccine is the best defense against influenza. The National Advisory Committee on Immunization (NACI), a national expert group on immunization, recommends annual influenza immunization for individuals 6 months of age and older.

3. What is a trivalent inactivated vaccine (TIV)?

The seasonal TIVs are designed to protect against three different influenza viruses. The seasonal TIVs include protection against two influenza A viruses and one influenza B virus.

4. How well will TIV protect against influenza?

Influenza immunization builds up antibodies against the influenza viruses in the vaccine.

Protection from the influenza vaccine varies from year to year depending on how well the strains included in the vaccine match the circulating strains. Although protection is generally lower in the elderly, studies have shown that influenza immunization can decrease the incidence of pneumonia, hospital admission and death in the elderly. According to the National Advisory Committee on Immunization (NACI), physician visits, hospitalizations and deaths in high-risk persons under 65 years of age are also reduced by influenza immunization.

It takes about two weeks following immunization to develop protection against influenza, with protection lasting for up to one year. Due to the potential mismatch in vaccine and circulating influenza virus types and less than 100% protection, people who receive the vaccine can still get influenza. In these cases the illness may be milder. However, the vaccine will not protect against colds and other respiratory illnesses that may be mistaken for influenza.

5. Who is eligible to receive TIV?

Individuals aged 18 years and older who live, work or attend school in Ontario are eligible to receive the publicly funded trivalent influenza vaccine. Although TIV is primarily available for adults, individuals under 18 years of age can receive TIV upon request, with the exception of one of the TIV products, Influvac[®], which is only approved for use in individuals 3 years of age and older.

6. How many doses of influenza vaccine are needed to provide protection?

Age	Number of doses required
9 years and older	1 dose
6 months to under 9 years of age - <i>Not previously immunized with influenza vaccine ever in the past</i>	2 doses at least 4 weeks apart*
6 months to under 9 years of age - <i>Previously immunized with influenza vaccine at least once in the past</i>	1 dose

*It is not a requirement to receive the same type of vaccine for both doses – a child who received live attenuated vaccine for the first dose can receive inactivated vaccine for the second dose and vice versa.

7. Why are TIVs publicly funded for adults aged 18 years and older?

Influenza B affects children and adolescents more frequently than it affects adults, therefore the quadrivalent influenza vaccine is being provided this year for children and adolescents less than 18 years of age. As in past years, the trivalent influenza vaccine will continue to be available for adults 18 years of age and older.

8. When should TIV be given?

Influenza vaccine should be offered as soon as it becomes available at doctors' offices, participating pharmacies and at local public health units for the general public. It is recommended that people receive the influenza vaccine prior to the onset of the influenza season if possible, such as in October or early November.

9. Do individuals need to receive the influenza vaccine every year?

Because influenza viruses change often it is necessary to get vaccinated every year for protection from the virus strains that may be circulating that year. Expert advisory groups recommend annual influenza vaccination.

10. Can the TIV be given at the same time as other vaccines?

TIVs may be given at the same time as other vaccines or at any time before or after other vaccines. If given by injection at the same time as other vaccines given by injection, separate limbs should be used. Alternatively, the injections may be administered into the same muscle separated by at least 2.5 cm (1"). Different administration sets (needle and syringe) must be used for each vaccine given by injection.

11. Are TIVs safe?

TIVs are safe and well tolerated and have undergone the same testing as other vaccines approved for use in Canada.

Most people who get the vaccine have either no side effects or mild side effects such as soreness, redness or swelling at the injection site. Life-threatening allergic (anaphylactic) reactions are very rare. If they do occur, it is within a few minutes to a few hours after receiving the vaccine. If this type of reaction occurs, medical attention should be sought immediately.

12. Can TIV cause influenza?

The seasonal TIV is made from inactive influenza virus so individuals cannot get influenza from the vaccine.

13. Who should not get TIV?

The following persons should not get TIV:

- Anyone under 6 months of age (the vaccine is not authorized for use in this age group)
- Anyone who has had a serious allergy (anaphylaxis) to a previous dose or to any ingredient in the vaccine, with the exception of egg
- Anyone who has developed Guillain-Barré Syndrome (GBS) within six weeks of a previous influenza vaccination

The influenza vaccine should be temporarily delayed in the following circumstance:

- Those with a severe acute illness with or without fever should usually wait until the symptoms subside before being immunized. However, people with a minor illness with or without a fever (e.g., a cold) can still get the vaccine.

14. What are the risks from TIV?

Influenza vaccine, like any medicine, is capable of causing side effects, which can be either mild or, rarely, severe. The risk of the vaccine causing serious harm is extremely small and can include serious allergic reactions and the following:

Guillain-Barré Syndrome (or GBS)

GBS is a very uncommon disease that causes muscle paralysis and has been associated with certain infectious diseases (e.g., *Campylobacter*, a bacteria that causes diarrhea). Overall, the risk of GBS occurring in association with immunization is very small. In comparison to the very small risk of GBS, the risk of illness and death associated with influenza is much greater. In addition, influenza illness itself can cause GBS, and the risk of GBS from influenza illness appears to be greater than the very small risk from the vaccine. Individuals who have developed GBS within 6 weeks of an influenza vaccination should avoid subsequent influenza vaccinations.

Oculorespiratory Syndrome (ORS)

In Canada, during the 2000-2001 influenza season, ORS was reported after administration of the influenza vaccine in some individuals. Symptoms include redness in both eyes that are not itchy, and/or swelling of the face, and/or respiratory symptoms occurring within 24 hours of influenza immunization. Since the 2000-2001 influenza season, few cases of ORS have been reported.

Persons who experienced ORS symptoms in the past may be safely re-immunized with influenza vaccine except for those who have experienced ORS with severe lower respiratory symptoms (wheeze, chest tightness, difficulty breathing) within 24 hours of influenza immunization. These individuals should seek expert medical advice before being immunized again with influenza vaccine.

15. When should individuals seek medical attention after immunization with TIV?

Individuals should be advised to call their doctor/nurse practitioner or go to the nearest hospital emergency department if any of the following symptoms develop within three days of getting the vaccine:

- Hives
- Swelling of the mouth and throat
- Trouble breathing, hoarseness or wheezing

- High fever (over 40°C or 104°F)
- Convulsions or seizures
- Other serious reaction to the vaccine

16. How can my patients keep track of their influenza immunizations and other immunizations?

After your patient receives their vaccine, please write the immunization in their yellow immunization card.

17. Who should my patients talk to if they have any questions about influenza or any other vaccines?

Individuals looking for general information about influenza, the influenza vaccine, the province's Universal Influenza Immunization Program, can call: 1-877-844-1944 (TTY#1-800-387-5559) or visit website: www.ontario.ca/flu. Questions about the vaccine that are specific to an individual's medical condition should be discussed with their health care provider or local public health unit. For a list of public health units, please visit www.health.gov.on.ca/en/common/system/services/phu/locations.aspx.

For additional information on influenza or the vaccine, please visit the following websites or call your local public health unit:

- a. Ontario's Universal Influenza Immunization Program: www.ontario.ca/flu
- b. Public Health Agency of Canada site: National Advisory Committee on Immunization (NACI) Statement on Seasonal Influenza Vaccine: www.phac-aspc.gc.ca/naci-ccni/#rec
- c. *Immunize Canada*: www.immunize.cpha.ca
- d. Centers for Disease Control and Prevention (CDC): Seasonal Influenza: www.cdc.gov/flu

ServiceOntario, INFOline: 1-877-234-4343 toll free in Ontario (TTY: 1-800-387-5559)

Version française disponible en communiquant avec le 1 877 234-4343 ATS: 1 800 387-5559 (web site: www.health.gov.on.ca/fr/ccom/flu/)