

# Influenza Immunization

## Questions & Answers



### Q: What is influenza (the flu)?

**A:** Influenza (flu) is a contagious respiratory illness. Influenza in humans is caused by two main types of influenza viruses: influenza A and influenza B.

### Q: What are the symptoms of influenza (the flu)?

**A:** Influenza symptoms range from mild to severe illness in humans. Symptoms usually include the sudden onset of fever, cough, and muscle aches and pains. Other common symptoms may include headache, chills, loss of appetite, fatigue, sore throat, runny nose, and nasal congestion. Some individuals, especially children, may experience diarrhea, nausea, and vomiting. Additional symptoms in children can include changes to eating or drinking, difficulty waking up, decreased interaction with others, and irritability.



Most people who catch influenza recover and are symptomless after seven to ten days. However, some individuals may experience severe complications (such as pneumonia and respiratory failure) that can lead to hospitalization and/or death.

### Q: Is influenza contagious?

**A:** The influenza virus is highly contagious, and can spread rapidly from person to person,

by respiratory droplets carried in a cough or a sneeze, and can also spread by touching contaminated surfaces. The virus can survive up to 48 hours on surfaces, such as a telephone, computer keyboard, doorknob, kitchen countertop, coffeepot handle, or toys.

Once you have caught influenza, you are contagious starting from the first day before you experience symptoms, and remain contagious for approximately five days after your first day of symptoms.

### Q: Why is it important to get vaccinated every influenza season?

**A:** Viruses that cause influenza are continually changing.

Each year, the World Health Organization identifies strains of the influenza virus that are predicted to be the most common and that will therefore have the most impact on our health. Influenza vaccines are then developed based on these predicted strains. Since these viruses may change from year to year, you need to receive an annual influenza vaccine to make sure your body forms antibodies (proteins that protect your body from invasive viruses and bacteria) that specifically fight against the new influenza viruses.

Some people are at higher risk for severe influenza, such as anyone who is pregnant, people who are immunocompromised, and children under 5 years of age. By getting vaccinated, you are protecting yourself and others from influenza.

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## Q: What types of influenza vaccines are offered in Canada?

**A:** There are three types of influenza vaccines offered in Canada: inactivated influenza vaccines (IIV), the recombinant influenza vaccine (RIV), and live attenuated influenza vaccines (LAIV).

- **Inactivated influenza vaccines (IIV)** use an inactivated (killed) version of the influenza virus in the vaccine. They are given as an injection.
- **Recombinant influenza vaccine (RIV)** teaches your body to recognize a small protein on the surface of the influenza virus. It is given as an injection.
- **Live attenuated influenza vaccines (LAIV)** use an attenuated (weakened) form of the live influenza virus in the vaccine. They are given as a nasal spray.

IIV, RIV, and LAIV all teach your body how to recognize the influenza virus, so you will be able to fight it off in case you are infected.

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## Q: Where can I receive an influenza vaccine?

**A:** Immunization programs are available in all provinces and territories. Contact your doctor, nurse, pharmacist, or local public health office about vaccination programs available in your area.

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## Q: When should I be immunized?

**A:** The best time to get your influenza vaccine (flu shot) is in October, before influenza season starts (typically in November). You can get a flu shot anytime between October and March, but sooner is always better.

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## Q: How long does it take for an influenza vaccine to work?

**A:** It takes about two weeks for an influenza vaccine to fully work. If you are exposed to the influenza virus within those two weeks, or shortly before your influenza vaccine (flu shot), you could catch influenza. However, if you were to become sick with influenza, it would not be because of the vaccine.

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## Q: Can I get influenza from the vaccine?

**A:** No. You cannot get influenza from an influenza vaccine. Inactivated influenza vaccines (IIV) use a killed version of the influenza virus, while the recombinant influenza vaccine (RIV) only uses parts of the virus, meaning you cannot get influenza from these vaccines.

Live attenuated influenza vaccines (LAIV) use a weakened form of the influenza virus, meaning those with regularly functioning immune systems will not get influenza from LAIV. However, those with weakened immune systems - such as those with immunocompromising conditions - should not receive LAIV, as a precaution, until more safety data becomes available.

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## Q: How effective are the influenza vaccines?

**A:** The effectiveness of an influenza vaccine (its ability to prevent influenza illness) can range widely from season to season and from person to person. It can vary based on:

- a person's age (for example, people 65+ may have a weaker immune response to the vaccine)
- a person's health (for example, people with weakened immune systems may have a weaker immune response to the vaccine)
- how well the influenza vaccines match the strains of influenza circulating in a given influenza season

During years when there is a good match between the influenza vaccines and circulating viruses, it's more likely you will have good protection from severe influenza illness. In years where there is a mismatch, the vaccine may not be as effective, but it still provides some protection against serious infection.

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## **Q: How safe are influenza vaccines?**

**A:** Influenza vaccines have been safely used since the 1940s. They have been proven safe and can benefit people of all ages.

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## **Q: Who should be immunized against influenza?**

**A:** All Canadians 6 months of age and older. In particular, people at high risk of severe influenza infection, including:

- anyone who is pregnant
- all children 6 months up to and including 4 years of age
- adults 65+
- individuals in or from First Nations, Inuit, or Métis communities as a result of intersecting determinants of health rooted in historic and ongoing colonization and systemic racism
- people of any age living in nursing homes and other chronic-care facilities
- children and adults with chronic health conditions such as:
  - cardiac or lung disorders, including asthma
  - diabetes and other metabolic diseases
  - cancer
  - immune-compromising conditions
  - kidney disease
  - anemia or hemoglobinopathy
  - class 3 obesity (body mass index [BMI] of 40kg/m<sup>2</sup> and over)

- children 6 months to 18 years of age with chronic conditions treated for long periods with acetylsalicylic acid
- neurological or neurodevelopment conditions (excluding migraines and psychiatric conditions without neurological conditions)
- health care providers who could transmit influenza to people at high risk of severe influenza infection
- people who provide essential community services
- people who are at increased risk of being exposed to avian influenza A(H5N1) due to their recreational activities (e.g., hunting or trapping wild birds or mammals) or occupation

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## **Q: Is there anyone who shouldn't get an influenza vaccine?**

**A:** Most people can safely receive the influenza vaccine, but it may not be recommended for some individuals.

### **Influenza vaccination is NOT recommended in the following cases:**

- if you have had an anaphylactic reaction to a previous dose, or to any of the vaccine components (with the exception of egg)
  - If you have had an anaphylactic reaction to one of the components in a specific influenza vaccine, you may be eligible to receive a different influenza vaccine where the component you are allergic to is absent. This must be done in consultation with an allergy expert.
- if you have previously developed Guillain-Barré syndrome within six weeks of getting an influenza vaccine

**As well, it is recommended that you do not receive live attenuated influenza vaccines (LAIV) in the following cases:**

- if you have an immunocompromising condition (weakened immune system), with the exceptions of:
  - children with stable HIV infection who have been receiving antiretroviral therapy (ART) for at least four months
  - children with cystic fibrosis who are not receiving immunosuppressive drugs (drugs that weaken their immune system)
- if you have severe asthma, due to increased risk of wheezing after administration
- if you have received medical assistance due to wheezing seven days or less before your influenza vaccine (flu shot) appointment (there is an increased risk of wheezing after receiving LAIV)
- if your child is younger than 24 months (due to increased risk of wheezing after receiving LAIV)
- if you are pregnant (please see [Can I get immunized against influenza if I am pregnant?](#))
- if you are on antiretroviral therapies that target the influenza virus (within certain timeframes)
- if you are a healthcare worker who works with or in close proximity to patients (e.g., working in a hospital, clinic, pharmacy, etc.)

Talk to your healthcare professional if you have questions about getting LAIV or other influenza vaccines.

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**Q: Are there side effects from influenza vaccines?**

**A:** Influenza vaccines are very safe, but as with any medication, side effects can occur.

Most people who get an influenza vaccine have mild side effects (such as soreness, redness, or swelling in the area where the influenza vaccine was given) or no side effects at all. Some people may feel more tired than usual, experience muscle aches, develop a headache, or feel slightly unwell after receiving the vaccine, but these symptoms are typically short-lived and are usually mild. Allergic reactions that can be life-threatening are extremely rare. If they do occur, it is within a few minutes to a few hours following vaccination. Your doctor, nurse, or pharmacist will ask you to wait 15 minutes following your vaccination, to watch for possible reactions.

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**Q: Can influenza vaccines be given at the same time as other vaccines?**

**A:** Yes. Other vaccines can be received at the same time as an influenza vaccine. For example, you can receive your COVID-19 vaccine at the same time as an influenza vaccine. Talk with your doctor, nurse, pharmacist, or local public health office about receiving more than one vaccine at the same time.

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**Q: Can I get immunized against influenza if I am pregnant?**

**A:** Yes. Influenza vaccines have been given in pregnancy for decades and have a good safety record. There is no evidence that influenza vaccines harm the pregnant parent or fetus.

However, live attenuated influenza vaccines (LAIV) are not recommended for pregnant people. There is currently not enough safety data on the use of the live attenuated influenza vaccines (LAIV) in pregnancy.

**Therefore, you should NOT receive LAIV if you are pregnant.**



**Q: Can I get immunized against influenza if I am breastfeeding?**

**A:** Yes. Influenza vaccines are considered safe and are recommended for all breastfeeding individuals.

**Q: Are children at an increased risk of developing neurological disorders like autism or attention-deficit hyperactivity disorder (ADHD) if they receive an influenza vaccine?**

**A:** No. Multiple studies have shown that there is no link between vaccines and autism or attention-deficit/hyperactivity disorder (ADHD).

**Q: Why do some influenza vaccines contain thimerosal if other vaccines do not contain it?**

**A:** Thimerosal is added to influenza vaccines in multi-dose vials to keep them sterile. It acts as a preservative, since multi-dose vials are used more than once. Single-dose influenza vaccines are used only once and do not need a preservative. There is no evidence that the use of thimerosal in vaccines causes harm.

**Q: Is it safe to receive influenza vaccines that contain thimerosal?**

**A:** Yes. It is absolutely safe to receive influenza vaccines that contain thimerosal.

Thimerosal is used in multi-dose influenza vaccine vials as a preservative to prevent the build-up of bacteria. It contains a type of mercury called ethyl mercury, which is an organic compound that your body breaks down and gets rid of quite quickly. It should not be confused with methyl mercury, which is a type of mercury found in fish and shellfish that your body has a much harder time breaking down. Methyl mercury can be toxic if consumed in excessive amounts, but it is safe when eaten in moderation as recommended. Because your body breaks down ethyl mercury quickly, the low doses of thimerosal present in multi-dose influenza vaccine vials are safe for use.

There is also no evidence that the use of thimerosal in vaccines leads to autism.

For more information about thimerosal and vaccines, please visit the [Children's Hospital of Philadelphia's website](#).

**Q: Where can I get more advice on influenza immunization?**

**A:** Contact your local public health office, doctor, nurse, or pharmacist. You can also read more about influenza immunization on the following websites:

- **Immunize Canada:**  
<https://immunize.ca/influenza>
- **Public Health Agency of Canada:**  
<https://www.canada.ca/en/public-health/services/diseases/flu-influenza.html>

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