



Influenza Vaccines for Children

(FluLaval Tetra ®, Fluzone Quadrivalent®, FluMist® Quadrivalent, Agriflu®, Fluviral®)

Vaccine Benefits

Getting the flu vaccine is the best way to prevent influenza. Each year, there is a new vaccine to protect against the flu virus strains that are expected in the coming influenza season. Even if the strains have not changed, getting vaccinated every year is needed to maximize protection.

This year, Canada has approved four-strain (quadrivalent) vaccines with a second influenza B-strain for broader protection. Quadrivalent vaccines are available by injection (flu shot) or as a vaccine spray in the nose. Flu shots are about 60% effective in preventing influenza illness.

The vaccine spray given in the nose works better in healthy **children two to five years old** (about 80% effective) and is preferred; it is also recommended **for children up to 17 years of age**. If the four-strain, nasal spray vaccine (live, weakened virus) is not available, either the four or three-strain injectable (killed virus) vaccines can be used.

The three-strain and four-strain flu vaccines (injection or nasal spray) are all free for children.

Children younger than 9 years of age, getting the influenza vaccine for the first time need two doses, at least four weeks apart.

Other steps you can take to prevent influenza infection include clean your hands frequently and avoid touching your eyes, nose and mouth with unclean hands; cover your cough and sneeze; and stay home when you are sick.

Children and youth who should get the vaccine

Children six months of age or older should get the flu vaccine, unless there are medical reasons that prevent them from getting it.

Children who should not get flu vaccine given by injection:

- Under six months of age
- Who had a severe allergic reaction (anaphylactic reaction) to a previous dose of influenza vaccine OR to any vaccine components (e.g., neomycin, kanamycin, thimerosal), with the exception of egg*
- Who had Guillain-Barré syndrome (GBS) within 6 weeks of influenza vaccination
- Most people who have had Oculorespiratory syndrome (ORS) can safely receive the vaccine, but should speak with their doctor first
- Postpone vaccination in children with serious acute illness until their symptoms have resolved. There is no need to delay vaccination because of minor illness, such as a cold, with or without fever.

*People with egg allergies may get the injectable flu vaccine at regular vaccination clinics

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Children who should not get the nasal spray vaccine (FluMist® Quadrivalent):

- Younger than 2 years of age
- With a weakened immune system (immunocompromised)
- With severe asthma, or wheezing in the seven days prior to vaccination
- Taking aspirin or an aspirin-containing product
- Who had a severe allergic reaction (anaphylactic reaction) to a previous dose of influenza vaccine, **OR** to any vaccine components, including egg, gentamicin, gelatin, and arginine
- Who have taken influenza antiviral drugs within the last 48 hours
- Had GBS within 6 weeks of a previous influenza vaccination
- Postpone vaccination in children with serious acute illness until their symptoms have resolved
- Postpone if child has nasal congestion as it may block the delivery of the vaccine
- Avoid contact with people with severely weakened immune systems for at least two weeks after vaccination.

Vaccine Side Effects and Risks

Influenza vaccine is safe and well-tolerated. **You cannot get influenza from the influenza vaccine.** Common side effects include soreness at the injection site, lasting up to two days. Children can get a fever after vaccination. For the nasal spray, common side effects may include runny, or stuffy nose.

Risk of severe side effects are very rare. They may include:

- Allergic reactions such as rash, trouble breathing, and swelling of the face and throat
- ORS causing red eyes, swelling of the face, coughing, wheezing and difficulty breathing
- GBS that causes muscle paralysis, has been associated with certain infectious diseases, including influenza infection. Risk of GBS is about one case in one million flu shots.

Consult your health care provider if you have a severe reaction to the flu vaccine.

Disease Information

Influenza is a respiratory infection caused by influenza A and B viruses. In Canada influenza infection generally occurs in the late fall and winter months. Influenza is easily spread by direct contact or droplets expelled during breathing, talking, sneezing or coughing.

Symptoms include sudden onset of high fever, chills, sore throat, cough and muscle aches. Other common symptoms include headache, loss of appetite, fatigue and runny nose. Nausea, vomiting and diarrhea may also occur, especially in children.

Influenza infections are highest in children ages 5 to 9 years old. Most people will recover within a week to ten days but some, **such as children under 6 years of age** or those with underlying health problems, are at greater risk of complications, such as pneumonia and worsening of underlying medical conditions. Each year in Canada, approximately **12,200 people are hospitalized and 3,500 die due to influenza and its complications.**

Adapted with permission from Toronto Public Health (November 20, 2015).