

Ministry of Health

Health Care Provider Qs & As:

FluMist® Quadrivalent

This Qs & As sheet is intended for informational purposes only. It is not intended to provide medical or legal advice.

1. What is the vaccine information for FluMist® Quadrivalent?

	Quadrivalent Live Attenuated Influenza Vaccine
UIIP Abbreviation	Q-LAIV
NACI Abbreviation	LAIV4
Vaccine product	FluMist® Quadrivalent
Manufacturer	AstraZeneca
Vaccine type	Egg-based
Fluorescent focus units (FFU)	10 ^{6.5-7.5} FFU/0.2 mL
Dosage	0.2 mL (0.1 mL in each nostril)
Format	Prefilled single use sprayer
Route	Intranasal Spray
Age indication	2 to 59 years
Most common allergens[^]	<ul style="list-style-type: none"> • Arginine hydrochloride • Egg Protein* • Gelatin • Gentamicin
Package Dimensions in cm	8.9 x 16.7 x 2.9

[^]Any component in a vaccine may be a potential allergen. This table identifies the most common allergens.

*The National Advisory Committee on Immunization (NACI) indicates that egg allergy is not a contraindication for influenza vaccination and that egg-allergic individuals may be vaccinated against influenza using the full dose of any age-appropriate product.

2. Which vaccine should be used for individuals 2 to 59 years of age?

The current evidence does not support the preferential use of quadrivalent inactivated influenza vaccine (QIV) or Q-LAIV in individuals 2 to 59 years of age. Individuals 2 to 59 years of age without a medical reason that prevents them from receiving the influenza vaccine or a particular product may receive either Q-LAIV or QIV. For more information, please see the *Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2020-2021* available at: www.canada.ca/en/public-health/services/publications/vaccines-immunization/canadian-immunization-guide-statement-seasonal-influenza-vaccine-2020-2021.html

3. How many doses of FluMist® are needed to provide protection?

Age	Number of doses recommended
2 years to under 9 years of age – Not previously immunized with an influenza vaccine in their lifetime	2 doses at least 4 weeks apart*
2 years to under 9 years of age – Previously immunized with at least one dose of influenza vaccine in their lifetime	1 dose
9 years to 59 years of age	1 dose

*The same vaccine product does not need to be used for both doses.

4. How many strains does FluMist® protect against?

The Q-LAIV is a quadrivalent influenza vaccine, meaning it protects against four strains - two influenza A strains and two influenza B strains. More details on the specific strains included in this season's influenza vaccines are outlined in the Health Care Provider Qs & As: Information for the 2020/2021 Influenza Season document.

5. Who can administer the influenza vaccine?

Individuals who can administer the influenza vaccine include:

1. Regulated health professionals who are authorized under the *Regulated Health Professions Act, 1991* to administer vaccines.
 - o Note: trained pharmacists may only administer publicly funded influenza vaccine to individuals 5 years of age and older.
2. Trained individuals under a delegation made in accordance with the requirements set by the regulatory College of the regulated health professional.

6. Can FluMist® cause influenza?

Q-LAIV contains live attenuated (weakened) viruses that do not cause influenza illness. The live attenuated (weakened) viruses are temperature sensitive, which means they are designed to only replicate at cooler temperatures found within the nose. The viruses cannot infect the lungs or other areas where warmer temperatures exist.

7. Can the vaccine be given to individuals when they are ill?

Those with a severe acute illness, with or without fever, should wait until the symptoms subside before being immunized.

Individuals with nasal congestion that would impede the delivery of the vaccine should delay vaccination with the Q-LAIV until the congestion is reduced.

Unlike previous influenza seasons, during the COVID-19 pandemic, individuals with symptoms of acute respiratory infection, including minor symptoms such as sore throat or runny nose, should defer influenza immunization until 10 days from the onset of their symptoms or they have recovered, whichever is later, as they can pose an unnecessary risk to others including health care providers if they have COVID-19 when seeking influenza vaccination.

During the COVID-19 pandemic, individuals with suspected, probable or confirmed COVID-19, and those who are close contacts of a case, should not attend influenza immunization appointments or clinics during their period of isolation as they may pose an unnecessary risk to the public and health care providers.

8. What are the common side effects?

The most common side effects are:

- Runny nose and/or nasal congestion
- Cough
- Fever
- Tiredness/weakness
- Sore throat
- Headache

These side effects are generally mild and last only a few days.

9. Who should NOT get the FluMist® influenza vaccine?

- Children younger than 2 years of age (the vaccine is not authorized for use in this age group)
- Anyone who has had a serious allergic reaction (anaphylaxis) to a previous dose of influenza vaccine or to any ingredient in the vaccine, except for egg, should not be vaccinated. The National Advisory Committee on Immunization (NACI) indicates that egg allergy is not a contraindication for influenza vaccination and that egg-allergic individuals may be vaccinated against influenza using the full dose of any age-appropriate product.

- Anyone who has developed Guillain-Barré Syndrome (GBS) within six weeks of a previous influenza vaccination should generally not be vaccinated, however this should be weighed against the risks of not being protected against influenza.
- People with severe asthma defined as people who are on high dose oral or inhaled steroids OR who have active wheezing OR who have been medically treated for wheezing in the last 7 days prior to vaccination.
- People with weakened immune system due to disease or medical treatment.
- Children less than 18 years of age who are on long-term aspirin-containing therapy.
- People taking medication active against influenza (influenza antiviral medication). See question 10 below for details.
- Pregnant women.

10. Frequently asked questions about the Q-LAIV:

Question	Answer
Can the vaccine be given to an individual while they are taking influenza antiretroviral medications?	<ul style="list-style-type: none"> • Q-LAIV should not be given until 48 hours after the last dose of an antiviral medication (e.g., Tamiflu® or Relenza®). • If an individual takes antiviral drugs within two weeks of getting Q-LAIV, the individual should be revaccinated at least 48 hours after the last dose of antiviral medication, because the antiviral drugs may prevent the vaccine from working.
Can the vaccine be given to breastfeeding mothers?	<ul style="list-style-type: none"> • Breastfeeding mothers, upon consultation with their health care provider, may receive the Q-LAIV as long as they don't have any contraindication to getting that vaccine.
Can the vaccine shed influenza virus or transmit influenza to other people?	<ul style="list-style-type: none"> • The live attenuated vaccine viruses can be shed from the nose after Q-LAIV administration. • Studies have shown that viral shedding decreases with increasing age. • Children may shed for an average duration of 7.6 days, with peak shedding around day 2-3 after vaccination; shedding is infrequent after day 11 post vaccination. • It is rare for shed virus to spread to others and cause illness since shedding generally occurs at levels too low to cause an infection. • Serious illness has not been reported among unvaccinated individuals infected with vaccine virus through close contact with a vaccinated individual. • Q-LAIV recipients should avoid close contact with individuals with severe immune compromising conditions (e.g., bone marrow

	transplant recipients requiring isolation in hospital) for at least two weeks following vaccination due to the theoretical risk for transmitting a vaccine virus and causing infection.
Should personal protective equipment be used to administer the vaccine?	<ul style="list-style-type: none"> • Due to COVID-19 concerns, vaccinators should wear a medical mask and eye protection. • Vaccinators should wear gloves when administering intranasal influenza vaccing because of an increased likelihood of contact with a client’s mucous membranes and bodily fluids during the procedure. • Gloves should be changed between clients and hand hygiene performed after gloves are removed. • Precautions for aerosol-generating procedures are not necessary for administration of nasal vaccines.
Does the Q-LAIV have a shorter shelf-life than other influenza vaccines?	<ul style="list-style-type: none"> • The Q-LAIV shelf-life is considerably shorter compared to the other publicly funded influenza vaccines. • Be sure to check the expiry date on the Q-LAIV.

11. What information should be provided to individuals related to potential adverse events following immunization (AEFI) with the influenza vaccine?

The influenza vaccine, like any medicine, can cause adverse events, which in most cases are mild, lasting only a few days. Life-threatening allergic (anaphylactic) reactions are very rare. If they do occur, it is typically within a few minutes to a few hours after receiving the vaccine. Oculorespiratory Syndrome (ORS) may occur in extremely rare instances. Please refer to question 21 of the Health Care Provider Qs & As: Information for the 2020/2021 Influenza Season sheet for further details.

As per s.38 of the *Health Protection and Promotion Act*, those administering vaccines should ensure that the vaccine recipients or their parents/guardians are aware of the need to report adverse events following immunization to their health care provider. Vaccine recipients should be advised to go to the nearest emergency department if severe reactions develop, including the following:

- Hives
- Swelling of the mouth or throat
- Trouble breathing, hoarseness or wheezing
- High fever (over 40°C or 104°F)
- Convulsions (seizures)
- Other serious reactions

Health care providers (e.g., physicians, nurses and pharmacists) are required by law (i.e., *Health Protection and Promotion Act*, s. 38) to report AEFIs to their local public

health unit. Reports should be made using the Ontario AEFI Reporting Form (available at: www.publichealthontario.ca/vaccinesafety) and sent to the local public health unit.

A list of public health units is available at:

www.health.gov.on.ca/en/common/system/services/phu/locations.aspx.

12. Where can health care providers find more information about the UIIP?

Health care providers looking for more information about influenza, influenza vaccines, or the province's UIIP can refer to the Health Care Provider Qs & As: Information for the 2020/2021 Influenza Season sheet, Public Health Ontario

(www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/influenza) or to their local public health unit.

A list of public health units is available at:

www.health.gov.on.ca/en/common/system/services/phu/locations.aspx.

13. Who should individuals talk to if they have questions about influenza or any other vaccines?

Individuals looking for general information about influenza, influenza vaccines or the province's UIIP can call ServiceOntario, INFOline at 1-866-532-3161 toll free in Ontario (TTY#1-800-387-5559) or visit: www.ontario.ca/flu. Questions about the vaccine that are specific to an individual's medical condition should be discussed with a health care provider or local public health unit.

A list of public health units is available at:

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) Universal Influenza Immunization Program: www.ontario.ca/influenza
- b) Public Health Agency of Canada - National Advisory Committee on Immunization (NACI) Statement on Seasonal Influenza Vaccine: www.phac-aspc.gc.ca/naci-ccni/#rec
- c) Public Health Ontario: www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/influenza
- d) Immunize Canada: www.immunize.ca/
- e) Centers for Disease Control and Prevention (CDC) - Seasonal Influenza: www.cdc.gov/flu/
- f) List of public health unit locations: www.health.gov.on.ca/en/common/system/services/phu/locations.aspx

Version française disponible en communiquant avec le 1-866-532-3161 ATS: 1-800 387-5559 (site web: www.health.gov.on.ca/fr/pro/programs/publichealth/flu/)