

2023-24

Minnesota Fall Flu Guide

Information to kick off the fall flu (influenza) vaccination season

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Influenza, COVID-19 and RSV

Although this year's respiratory season may not follow a typical pattern, we expect respiratory pathogens including influenza, COVID-19, and RSV (respiratory syncytial virus) to circulate again. Respiratory diseases continue to cause severe illness in Minnesota and globally. Co-circulation of these viruses could place an additional burden on the health care system.

In anticipation of these possibilities, influenza vaccination of those aged 6 months and older continues to be particularly important this season. Vaccination of younger children not only protects them, but also elderly and vulnerable adults they encounter during the flu season. Influenza vaccination of children will also help to prevent co-infection of flu and COVID-19 and potentially severe illness.

Influenza vaccination prevents outpatient medical visits, hospitalizations, and respiratory and circulatory deaths each season in the United States despite an overall estimated vaccine effectiveness of 45-50%. Prevention and reduction in the severity of influenza illness and reduction of outpatient illnesses, hospitalizations, and intensive care unit admissions through influenza vaccination also could potentially alleviate stress on the continued burden on the health care system.

Take precautions to prevent transmission

Vaccination activities should include precautions to prevent respiratory disease transmission. Providers should use precautions (e.g., mask requirements, social distancing, etc.) depending on disease circulation in your community. Consult [COVID-19 Levels \(www.health.state.mn.us/diseases/coronavirus/stats/index.html\)](https://www.health.state.mn.us/diseases/coronavirus/stats/index.html) and [Weekly Influenza & Respiratory Activity: Statistics \(www.health.state.mn.us/diseases/flu/stats/index.html\)](https://www.health.state.mn.us/diseases/flu/stats/index.html) for information on disease activity.

Flu vaccine for 2023-24

This guide provides a summary of CDC's flu vaccination recommendations for the 2023-24 flu season. For more details, read the full MMWR on [Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023–24 Influenza Season \(www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm\)](https://www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm).

All 2023-24 products are quadrivalent.

For the 2023–24 season, U.S. egg-based influenza vaccines (i.e., vaccines other than cclIV4 and RIV4) will contain hemagglutinin (HA) derived from:

- an influenza A/Victoria/4897/2022 (H1N1)pdm09-like virus,
- an influenza A/Darwin/9/2021 (H3N2)-like virus,
- an influenza B/Austria/1359417/2021 (Victoria lineage)-like virus, and
- an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus.

For the 2023–24 season, U.S. cell culture–based inactivated (cclIV4) and recombinant (RIV4) influenza vaccines will contain HA derived from:

- an influenza A/Wisconsin/67/2022 (H1N1)pdm09-like virus,
- an influenza A/Darwin/6/2021 (H3N2)-like virus,
- an influenza B/Austria/1359417/2021 (Victoria lineage)-like virus, and
- an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus.

For more information on flu vaccine antigen selections, visit [Selecting Viruses for the Seasonal Influenza Vaccine \(www.cdc.gov/flu/prevent/vaccine-selection.htm\)](https://www.cdc.gov/flu/prevent/vaccine-selection.htm).

New options for flu vaccine are available nearly every season. This makes flu vaccine more accessible but may also increase medication errors. Double check the package insert for age indication, route, and dosage. This information is summarized in the following chart and is available online in the 2023-24 Seasonal Influenza Vaccine Dosage Chart on [Influenza Vaccine Administration \(www.health.state.mn.us/diseases/flu/hcp/vaccine/admin.html\)](https://www.health.state.mn.us/diseases/flu/hcp/vaccine/admin.html).

Manufacturer*	Trade Name	Age	Dose-Presentation	Route
Inactivated Influenza Vaccine, Adjuvanted, Quadrivalent (aIIV4)				
Seqirus	Fluad Quadrivalent	65 years and older	0.5 mL - prefilled syringe	IM (intramuscular)
Recombinant Influenza Vaccine, Quadrivalent (RIV4)				
Sanofi Pasteur	Flublok	18 years and older	0.5 mL - prefilled syringe	IM
Cell Culture-Based Inactivated Influenza Vaccine, Quadrivalent (ccIIV4)				
Seqirus	Flucelvax	6 months and older	0.5 mL - prefilled syringe	IM
			0.5 mL - multi-dose vial	
Inactivated Influenza Vaccine, High Dose, Quadrivalent (HD-IIV4)				
Sanofi Pasteur	FluZone High-Dose	65 years and older	0.7 mL - prefilled syringe	IM
Inactivated Influenza Vaccine, Quadrivalent (IIV4)				
GlaxoSmithKline	Fluarix	6 months and older	0.5 mL - prefilled syringe	IM
GlaxoSmithKline	FluLaval	6 months and older	0.5 mL - prefilled syringe	IM
Seqirus	Afluria Quadrivalent	6 through 35 months**	0.25 mL - multi-dose vial	IM
		3 years and older	0.5 mL - multi-dose vial	
			0.5 mL - prefilled syringe	
Sanofi Pasteur	Fluzone Quadrivalent	6 months and older***	0.5 mL - prefilled syringe	IM
			0.5 mL - single-dose vial	
			0.5 mL - multi-dose vial	
Live Attenuated Influenza Vaccine, Quadrivalent (LAIV4)				
AstraZeneca	FluMist	2 through 49 years	0.2 mL - prefilled intranasal sprayer; 0.1 mL in each nostril	Intranasal

*Make sure you are using the correct codes to enter doses into the Minnesota Immunization Information Connection (MIIC) by going to [MIIC Codes for Data Submission and Exchange \(www.health.state.mn.us/people/immunize/miic/data/codes.html\)](http://www.health.state.mn.us/people/immunize/miic/data/codes.html).

**Afluria 0.25 mL pre-filled syringe dose for children ages 6 months is not available this season.

**The Fluzone 0.25 mL pre-filled syringe dose for children ages 6 through 35 months is no longer available.

Timing of vaccination

Because timing of the onset, peak, and decline of influenza activity varies, the ideal time to start vaccinating cannot be predicted each season. Decisions about timing necessitate balancing considerations regarding this unpredictability of the influenza season, possible waning of vaccine-induced immunity over the course of a season, and programmatic considerations. For most persons who need only 1 dose of influenza vaccine for the season, vaccination should ideally be offered during September or October. However, vaccination should continue after October and throughout the influenza season as long as influenza viruses are circulating, and unexpired vaccine is available.

Considerations for timing of vaccination include the following:

- **Most adults (particularly adults aged ≥65 years) and for pregnant persons in the first or second trimester:** Vaccination during July and August should be avoided unless there is concern that vaccination later in the season might not be possible.
- **Children who require 2 doses:** Certain children aged 6 months through 8 years require 2 doses of influenza vaccine for the season. These children should receive their first dose as soon as possible (including during July and August, if vaccine is available) to allow the second dose (which must be administered ≥4 weeks later) to be received, ideally, by the end of October.
- **Children who require only 1 dose:** Vaccination during July and August can be considered for children of any age who need only 1 dose of influenza vaccine for the season. While waning of immunity after vaccination over the course of the season has been observed among all age groups, there are fewer published studies reporting results specifically among children. Moreover, children in this group might visit health care providers during the late summer months for medical examinations before the start of school. Vaccination can be considered at this time because it represents

a vaccination opportunity.

- **Pregnant persons in the third trimester:** Vaccination during July and August can be considered for pregnant persons who are in the third trimester because vaccination might reduce risk for influenza illness in their infants during the first months after birth, when they are too young to receive influenza vaccine.

Adults aged 65 years and older

ACIP recommends that adults aged ≥ 65 years preferentially receive any one of the following higher dose or adjuvanted influenza vaccines:

- quadrivalent high-dose inactivated influenza vaccine (HD-IIV4),
- quadrivalent recombinant influenza vaccine (RIV4),
- quadrivalent adjuvanted inactivated influenza vaccine (aIIV4).

If none of these three vaccines is available at an opportunity for vaccine administration, then any other age-appropriate influenza vaccine should be used. Higher dose vaccines include HD-IIV4 and RIV4, both of which contain a higher dose of HA antigen per virus than standard-dose vaccines (60 μg for HD-IIV4 and 45 μg for RIV4, compared with 15 μg for standard-dose inactivated vaccines). Adjuvanted inactivated influenza vaccine (aIIV4) contains MF59 adjuvant.

Pediatric flu vaccines

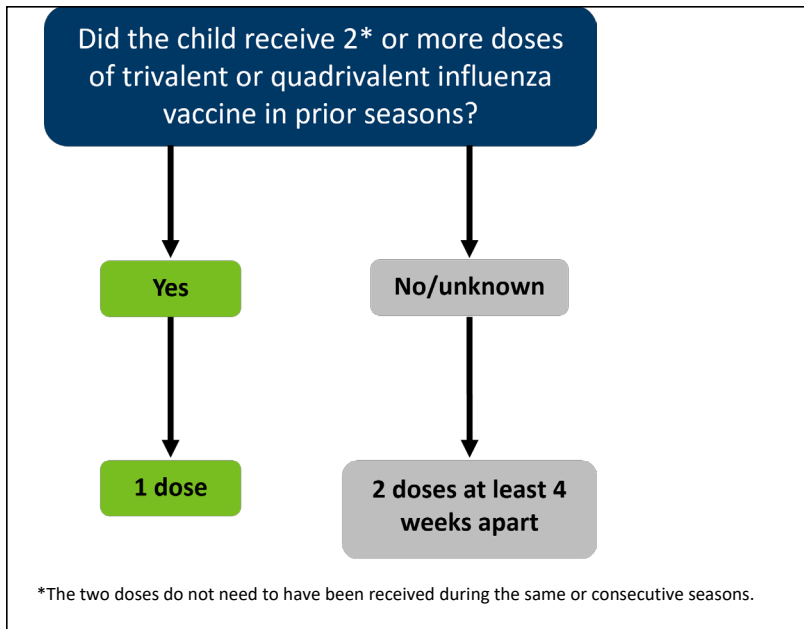
There are five inactivated influenza vaccine products, and FluMist (for children over 2 years) approved for children as young as age 6 months: Afluria, Fluzone, FluLaval, Fluarix, and Flucelvax. The dosages differ according to the product. Be sure to follow the package insert instructions. In summary, the dosage for:

- Afluria differs between children ages 6 through 35 months (0.25 mL) and for 3 years and older (0.5 mL).
 - However, 0.25-mL prefilled syringes are not expected to be available for the 2023–24 season. For children aged 6 through 35 months, a 0.25-mL dose must be obtained from a multidose vial.
- Fluzone for ages 6 months to 35 months is either a 0.25 mL or 0.5 mL dose. The dose for ages 36 months and older is 0.5 mL.
 - Fluzone 0.25 mL prefilled syringes are not available this year. If a 0.5 mL prefilled syringe of Fluzone is used for a child age 6 through 35 months, the dose volume will be 0.5 mL per dose.
 - If a 0.5 mL single-dose vial of Fluzone is used for a 0.25 mL dose (for ages 6 through 35 months), do not use one vial to draw up two doses. Only draw up half the volume to be administered and discard the other half.
- FluLaval and Fluarix is 0.5 mL for ages 6 months and older.
- Flucelvax 0.5 mL is now approved down to age 6 months and older.
- LAIV (FluMist) for healthy children is 0.1 mL in each nostril and is licensed for persons aged 2 through 49 years.

Two-dose recommendations for certain children

Give two doses of influenza vaccine, at least 4 weeks apart to children aged 6 months through 8 years who are receiving influenza vaccine for the first time or if they have not received two or more doses of influenza vaccine previously. Two doses are recommended even if the child turns 9 between receipt of dose 1 and dose 2.

Refer to Influenza vaccine dosing algorithm for children 6 months through 8 years old, 2023-24 influenza vaccination season in the MMWR [Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023–24 Influenza Season \(www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm\)](https://www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm).



Vaccine protocols

Influenza vaccine protocols should be reviewed every year before vaccination begins. Protocol information and templates can be found on [Vaccine Protocols \(www.health.state.mn.us/people/immunize/hcp/protocols/index.html\)](http://www.health.state.mn.us/people/immunize/hcp/protocols/index.html).

The route of vaccine administration varies by product. Influenza vaccines recommended for use this season are administered in one of two routes: intramuscular or intranasal.

Co-administration of vaccines

Consider other vaccines that may also be given at this time; don't miss opportunities to vaccinate. Inactivated and recombinant flu vaccines can be administered simultaneously with other inactivated vaccines or live vaccines. This includes COVID-19 vaccine or other childhood or adult vaccines that are needed. Live attenuated influenza vaccine (LAIV4) can be administered simultaneously with other live or inactivated vaccines. However, if two live vaccines are not given simultaneously, at least 4 weeks should pass after administration of one live vaccine (such as LAIV4) before another live vaccine (e.g., MMR or varicella) is administered.

For more recently introduced and new vaccines (e.g., respiratory syncytial virus [RSV] vaccine), data informing simultaneous administration with influenza vaccines might be limited or evolving. Providers should consult current CDC/ACIP recommendations and guidance for up-to-date information.

Screening for contraindications and precautions

Flu vaccine is one of the most widely administered vaccines and in general, most people, even those with egg allergy, can safely receive the vaccine.

- Do not administer flu vaccine to patients who have a contraindication.
- Patients that have a precaution should generally not be vaccinated unless the benefits outweigh the risks as advised by their health care provider.

Contraindications and Precautions

- A previous severe allergic reaction to flu vaccine, regardless of the component suspected of being responsible for the reaction, is a contraindication to future receipt of the vaccine.
- A person who has experienced Guillain-Barre Syndrome (GBS) within 6 weeks of receipt of a flu vaccine may be vaccinated after having a conversation with their medical provider regarding the risks and benefits of vaccination. While GBS is extremely rare after vaccination, a person who has experienced GBS within 6 weeks of a flu vaccination could be at higher risk to experience it again after vaccination.
- Mild illness is neither a contraindication nor precaution to flu vaccination. A mild illness is one in which there are no expectations of a worsening illness course. Examples include otitis media in which antibiotics are prescribed and fever may or may not still be present, or cold symptoms that have been declining. Immunization programs should

have a policy with clear criteria about what symptoms would warrant deferral (e.g., fever >100.5 degrees F, or an acute illness that began within the past 24-48 hours) and when the patient may be vaccinated.

- People with COVID-19-like symptoms should not get a flu vaccine until they have recovered from their acute illness and have met the criteria to discontinue isolation if they tested positive for COVID-19. Refer to [Ending Isolation and Precautions for People with COVID-19: Interim Guidance \(www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html\)](https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html).
- LAIV: Because LAIV is a live vaccine, additional contraindications and precautions include, pregnancy, conditions that suppress the immune system, receipt of antivirals, CSF leak, or cochlear implants. Additionally, ACIP does not recommend LAIV for people with asthma and underlying medical conditions that place a person at high risk for influenza (e.g., diabetes, heart disease, etc.).

Egg allergy and flu vaccination

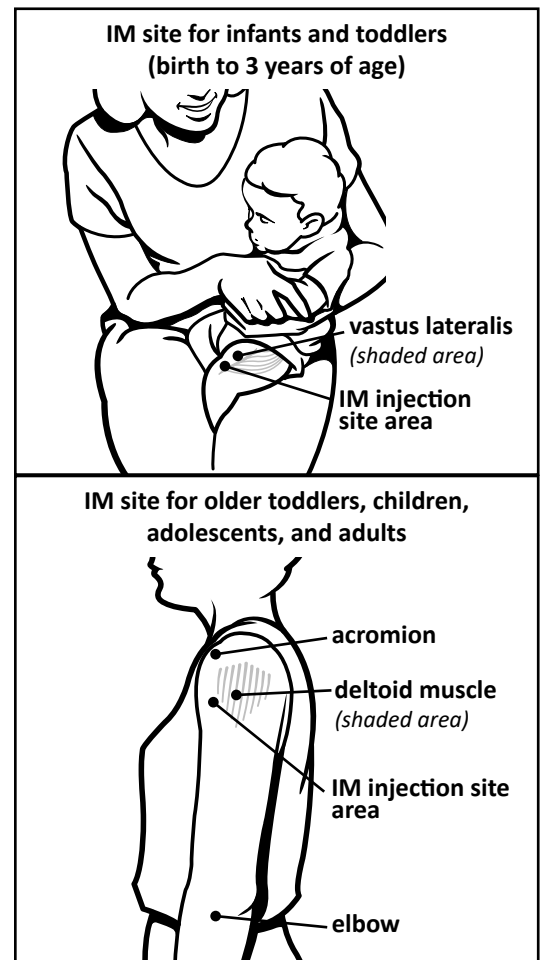
- People with egg allergies can receive any licensed, recommended, age-appropriate flu vaccine (IIV4, RIV4, or LAIV4) and should be observed for the standard 15 minutes.
- Administration of flu vaccine to people with egg allergies requires no additional precautions other than those recommended for administration of any vaccine to any individual.
- All vaccination providers should be familiar with the procedure for treating an acute reaction and be currently certified in cardiopulmonary resuscitation (CPR). Epinephrine and equipment for maintaining an airway should be available for immediate use.
- Postvaccination observation period is not specifically recommended for egg-allergic people. Providers are recommended to consider observing patients (seated or supine) for 15 minutes after administration of any vaccine to decrease the risk for injury should syncope occur.

Intramuscular (IM) administration

Injection technique is the most important factor in delivering the vaccine into the muscle. Proper intramuscular injection ensures the vaccine will be most effective, cause the patient the least amount of discomfort, and reduce potential injury.

- **Select the appropriate needle length**
 - Appropriate needle length depends on age and body mass. For all IM injections, the needle should be long enough to reach the muscle mass and prevent vaccine from seeping into subcutaneous tissue, but not so long as to involve underlying nerves, blood vessels, or bone.
 - Needle size and site of injection must be decided for each person based on the size of the muscle and the thickness of adipose tissue around the muscle. This is usually a 1 to 1 ½ inch needle for adults.
- **Prevent injection injuries**
 - Giving the IM injection too close to the shoulder joint can cause bursitis, fasciitis, and other injury. These types of injuries are reported more often during flu vaccination season.
 - Place three fingers from the top of the shoulder. Have the patient lift their arm (you should be able to see and feel the deltoid muscle contract). Once you have located the middle of the muscle, have the patient relax their arm and give the injection at a 90-degree angle at that point.

Visit [How to Administer IM \(Intramuscular\) Injections \(www.health.state.mn.us/people/immunize/hcp/admim.pdf\)](https://www.health.state.mn.us/people/immunize/hcp/admim.pdf) for more information regarding preferred IM sites and needle length guidance.



Intranasal administration

See the [FluMist Quadrivalent: Resources for you \(www.flumistquadrivalent.com/flu-vaccine-resources.html\)](http://www.flumistquadrivalent.com/flu-vaccine-resources.html) for instructions on proper vaccine administration.

Managing acute vaccine reactions

Administer vaccines in settings where staff are trained to recognize and respond to reactions.

- Have a signed hardcopy of a medical management of vaccine reaction plan and protocol that staff have reviewed and are ready to implement.
- Immediate systemic reactions can include syncope (fainting) and anaphylaxis.
 - To minimize syncope, have a place for patients to sit down while they are vaccinated, and be ready to lower them to a laying position if needed.
 - Although rare, anaphylaxis to a vaccine can occur and is a life-threatening event. Have the appropriate equipment on hand, and have trained staff available to administer epinephrine and maintain an airway in settings where vaccinations are given.
- Immunize.org has examples of emergency plans. Refer to [Medical Management of Vaccine Reactions in Children and Teens \(www.immunize.org/catg.d/p3082a.pdf\)](http://www.immunize.org/catg.d/p3082a.pdf) and [Medical Management of Vaccine Reactions in Adult Patients \(www.immunize.org/catg.d/p3082.pdf\)](http://www.immunize.org/catg.d/p3082.pdf) for more information.

Vaccine Adverse Event Reporting System (VAERS)

- Health care providers are required to report any event after vaccination that requires medical attention, regardless of whether it is related to vaccination. Report events electronically to the [Vaccine Adverse Event Reporting System \(VAERS\) \(vaers.hhs.gov/index\)](http://vaers.hhs.gov/index).
- While it is relatively rare to experience any kind of event, CDC relies on reports of adverse events to signal any problems with flu or other vaccines.

Documenting flu vaccination

Include the following information in your permanent electronic or paper records.

Federal law requires:

- Published date of the Vaccine Information Statement (VIS).
- Date the VIS was given to the patient.
- Name, address (office address), and title of the person who administers the vaccine.
- Date the vaccine is administered.
- Vaccine type, manufacturer, and lot number of each dose administered.

Best practice (may be required by agency):

- Site
- Route
- Dose

Minnesota Immunization Information Connection (MIIC)

Flu vaccine is given in a variety of settings. It is important for health care providers to be able to access immunization records for their patients no matter where the vaccines were given. Minnesota's immunization information system, [MIIC \(www.health.state.mn.us/miic\)](http://www.health.state.mn.us/miic), stores electronic immunization records that combine immunizations individuals received at different locations across the state. It is a best practice for all providers to enter vaccines they administer – including flu – into MIIC. MIIC's combined immunization records help make sure Minnesotans get the right vaccines at the right times.

Providers can enter vaccine into MIIC in several ways:

- Submissions directly from electronic health record systems.
 - Current MIIC users with electronic health record systems can submit immunization information to MIIC through an electronic connection with their systems. Find more information about setting up a connection with MIIC

- Optimal storage units include “stand alone” or pharmacy grade units; they provide uniform temperatures inside the unit. If using a combination unit, do not use the freezer compartment to store vaccines because the freeze-thaw cycles impact the temperatures in the refrigerator portion and increase the risk of exposure to freezing temperatures. Include water bottles in the refrigerator to add additional temperature buffering.
- Use a calibrated temperature monitoring device; a continuous temperature monitoring device, such as a data logger, is recommended.
- Check and document the minimum and maximum temperature once a day and the current temperature twice a day. Take action if the temperature goes out of range.
- Visit the CDC’s [Vaccine Storage and Handling Toolkit \(www.cdc.gov/vaccines/hcp/admin/storage/toolkit/\)](http://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/) for full guidance on storage and handling of vaccines.

Note: There are specific storage requirements for those that participate in the [Minnesota Vaccines for Children \(MnVFC\) Program \(www.health.state.mn.us/vfc\)](http://www.health.state.mn.us/vfc). Refer to your site’s *Policies and Procedures Manual* for guidance.

Transport of flu vaccine

Vaccine should be delivered directly to the location where vaccination takes place whenever possible. If flu vaccine must be transported off-site from its main storage area, keep these key things in mind:

- Temperatures need to be continuously monitored and recorded. Take action if the temperature goes out of range.
- Follow specific packing recommendations. Better yet, use portable refrigeration units or qualified containers and packouts whenever possible.
- Storing vaccine in a home refrigerator is not acceptable. If overnight storage is a frequent aspect of your flu vaccination program, use portable refrigeration units.
- [Checklist for Vaccination at Satellite, Temporary, or Off-site Locations \(www.health.state.mn.us/diseases/coronavirus/vaccine/offlist.pdf\)](http://www.health.state.mn.us/diseases/coronavirus/vaccine/offlist.pdf).

Providing information before vaccination

An essential part of flu vaccination is providing information about the risks and benefits of flu vaccination, which includes the Vaccine Information Statement (VIS), alerting vaccinees of common symptoms after vaccination, and instructions for follow-up care if needed.

Vaccine Information Statements (VISs)

- Providing the most current VIS before administering the vaccine is required by federal law. The VISs for both the Inactivated and Live intranasal flu vaccines were updated on Aug. 6, 2021 and can be found at [Current VISs \(www.cdc.gov/vaccines/hcp/vis/current-vis.html\)](http://www.cdc.gov/vaccines/hcp/vis/current-vis.html).
- The VIS gives patients basic information on flu disease and vaccine risks and benefits.
- The VIS is available in multiple languages from the Immunization Action Coalition at [Vaccine Information Statements \(www.immunize.org/vis\)](http://www.immunize.org/vis).

Potential side effects

Preparing a patient about what to expect and when to follow-up with a health care provider is a best practice and can ease anxiety about vaccination. Most reactions to flu vaccine are mild, resolve on their own, and do not result in serious outcomes. Common side effects include:

- Pain or redness at the injection site
- Muscle aches
- Headache
- Mild fever

These symptoms usually resolve in a day or two and should not be mistaken for flu disease.

Influenza, RSV, and COVID-19 testing

It is important that providers distinguish between influenza, RSV, and COVID-19 through PCR testing whenever possible. Multiplex PCR tests for all 3 pathogens, as well as a dualplex PCR test for influenza and COVID-19 are available. Each

pathogen also has rapid antigen testing available. At this time, PCR testing is considered to be the gold-standard diagnostic test for COVID-19, RSV, and influenza. MDH will communicate any changes in guidelines at [Specimen Collection and Testing for Seasonal Influenza \(www.health.state.mn.us/diseases/flu/hcp/lab.html\)](https://www.health.state.mn.us/diseases/flu/hcp/lab.html) and through the Health Alert Network (www.health.state.mn.us/han).

Antiviral recommendations

Antiviral use is recommended as soon as possible for patients with suspected or confirmed flu who are:

- Hospitalized.
- Have severe, complicated, or progressive illness.
- Outpatients at higher risk for influenza complications (e.g., children under age 2 years, pregnant women, those with immunosuppression, etc.).
- Residents of nursing homes and other chronic-care facilities.
- Have uncomplicated influenza and present within 48 hours of illness (based on clinical judgment).

For more information on influenza antivirals, see CDC's [Influenza Antiviral Medications \(www.cdc.gov/flu/professionals/antivirals/index.htm\)](https://www.cdc.gov/flu/professionals/antivirals/index.htm).

Recap of 2022-23 flu season in Minnesota

- 3,338 hospitalizations.
 - 1,022 outbreaks of influenza-like illness (ILI) in schools.
 - 105 outbreaks of influenza in long-term care facilities.
 - 2 pediatric deaths.
- The 2022-23 influenza season had elevated activity compared with pre-pandemic seasons and increased significantly from the previous season. Influenza activity also peaked earlier in than in previous seasons. The predominant strain of influenza was Influenza A/H3.

Rapid flu testing

While rapid flu testing can be useful, it has limitations.

- False negative flu rapid testing results are common, and a negative rapid test result does not rule out flu.
- Likewise, a positive rapid test does not confirm flu, especially during times of low prevalence of disease in the community.
- Antiviral treatment should not be withheld from patients with signs and symptoms suggestive of flu and a negative rapid flu test result. Providers are encouraged to use clinical judgment for treatment and infection control decisions. More information on rapid tests can be found at [Rapid Influenza Diagnostic Testing \(www.health.state.mn.us/diseases/flu/hcp/rapid.html\)](https://www.health.state.mn.us/diseases/flu/hcp/rapid.html).

Commonly asked questions

Sometimes patients ask for more information about flu vaccine. Review answers to these commonly asked questions so you can provide reassurance to patients who may be hesitant and build confidence in vaccination.

What is flu (influenza)?

- Flu (influenza) is caused by viruses that attack the lungs, nose, and throat. This group of viruses is very different from those that cause stomach upset and diarrhea—or what some call the “stomach flu.”
- Flu symptoms can be mild or severe, but typically cause a cough, sore throat, body aches, and fever.
- Usually flu is more severe than a cold, and symptoms start very suddenly.

Who is at high risk for flu?

Most healthy people will recover from flu without complication; however, many people are in an age group or have a condition that places them at high risk for complications from flu. These groups include:

- Children under age 5 years, but especially those under 2 years.
- Adults over age 65 years.
- Pregnant people.
- People with a chronic medical condition, such as asthma, neurological and neurodevelopmental conditions, lung and heart disease, chronic kidney disease and diabetes, weakened immune system, and obesity (especially those with BMI ≥ 40).

Why does flu vaccine change every year?

- The flu virus is continuously changing, which results in a change of the most common strains circulating. The flu vaccine changes each year to try and match the strains that are expected to cause the most illness in the upcoming season.
- Whether the strains change or not, it's important to get a flu vaccine every year since immunity decreases over time.
- Everyone 6 months of age and older should get a flu vaccine each year.

How effective is flu vaccine?

- Efficacy can vary based on things like how healthy you are, how old you are, and whether you've been vaccinated before.
- While the vaccine won't prevent every case of flu, it is the most specific tool we have against the flu. Even in years when efficacy is low, influenza vaccination prevents severe disease and death.

Is flu vaccine safe?

- Year after year, flu vaccine is shown to be safe. They have been extensively studied for safety and are continuously monitored for safety.

Can people with egg allergies get the vaccine?

- Yes. Extensive reviews of data indicate that severe allergic reactions are rare among people with egg allergy who receive flu vaccination. Flu vaccination is safe for these people.

When is the best time to get vaccinated?

- Aim to vaccinate your patients by the end of October.
 - Timing of vaccination must be balanced between the unpredictable timing of influenza season and concerns that vaccine-induced immunity might wane over the course of a season.
- Efforts should be structured to optimize vaccination coverage before influenza activity in the community begins.
- Pregnant people should get vaccinated during the third trimester soon after vaccine becomes available. Vaccination of pregnant people has been shown to reduce risk of influenza illness in their infants during the first months of life (a period during which they are too young to receive influenza vaccine).
- Children that require two doses should get the first dose when the vaccine becomes available to allow the second dose (which must be administered ≥ 4 weeks later) to be received ideally by the end of October.
- Children of any age who require only one dose for the season should also ideally be vaccinated by the end of October. Vaccination of these children may occur as soon as vaccine is available, as there is less evidence to suggest that early vaccination is associated with waning immunity among children as compared with adults.
- Booster doses of flu vaccine during the influenza season do not provide benefit and are not recommended.
- Delaying vaccination until later in fall or winter may lead to missed opportunities and non-vaccination.
- Continue to vaccinate throughout the season until you run out of vaccine, or it expires.

Stay informed about flu

- For information on flu activity in Minnesota, subscribe to our [Weekly Influenza & Respiratory Activity: Statistics \(www.health.state.mn.us/diseases/flu/stats/index.html\)](http://www.health.state.mn.us/diseases/flu/stats/index.html).
- Get an email alert when updates are made to [Influenza Information for Health Professionals \(www.health.state.mn.us/diseases/flu/hcp/index.html\)](http://www.health.state.mn.us/diseases/flu/hcp/index.html).
- Subscribe to [Got Your Shots? News \(www.health.state.mn.us/people/immunize/hcp/gys/index.html\)](http://www.health.state.mn.us/people/immunize/hcp/gys/index.html) for monthly immunization updates from MDH.

