Summary: 'Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2020-21'

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Full Report: Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP) —United States, 2020-21

For additional information: *MMWR Recomm Rep 2020;69(No. RR-8)*, at https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html.

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2020-21 Summary of Flu Vaccine Recommendations [PDF – 395 KB]

Groups Recommended for Vaccination

- Routine annual influenza vaccination is recommended for all persons aged ≥6 months who do not have contraindications.
- A licensed vaccine appropriate for age and health status should be used. Consult package information for age indications.
- Emphasis should be placed on vaccination of high-risk groups and their contacts/caregivers. When vaccine supply is limited, vaccination efforts should focus on delivering vaccination to (no hierarchy is implied by order of listing):
  - Children aged 6 through 59 months
  - Adults aged ≥50 years
  - Persons with chronic pulmonary (including asthma), cardiovascular (excluding isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)
  - Persons who are immunocompromised due to any cause, including (but not limited to) medications or HIV infection
  - Women who are or will be pregnant during the influenza season
  - Children and adolescents (aged 6 months through 18 years) receiving aspirin- or salicylate-containing medications who might be at risk for Reye

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Infection Control
Toolkit for Long-Term Care Employers
Trainings
Health Professional References & Resources
Flu News & Spotlights
What's New

syndrome associated with influenza
- Residents of nursing homes and long-term care facilities
- American Indians/Alaska Natives
- Persons who are extremely obese (BMI ≥40 for adults)
- Caregivers and contacts of those at risk:
  - Health care personnel, including all paid and unpaid persons working in health-care settings who have potential for exposure to patients and/or to infectious materials, whether or not directly involved in patient care;
  - Household contacts and caregivers of children aged ≤59 months (i.e., <5 years), particularly contacts of children aged <6 months, and adults aged ≥50 years;
  - Household contacts and caregivers of persons with medical conditions associated with increased risk of severe complications from influenza.

Top of Page

Timing of Vaccination +

Guidance for Use in Specific Populations +

Using Influenza Vaccines with Other Vaccines +

Vaccine Adverse Event Reporting System (VAERS) +

Further Information +

Top of Page

U.S. Influenza Vaccine Products for the 2020-21 Season

Inactivated Influenza Vaccines (IIVs) and Recombinant Influenz Vaccine (RIV4)

Trade Name [*Manufacturer*]	Presentation	Age Indication	HA, µg/dose (each virus)	Thime Yes/ If ye Merc µg/0.
Quadrivalent IIVs (IIV4s)—Standard-dose—Egg-based				
Afluria Quadrivalent* *Seqirus*	0.25 mL prefilled syringe*	6 through 35 mos	7.5/0.25 mL 15/0.5 mL	N
	0.5 mL prefilled syringe*	≥3 yrs	See note for dosing*	N
	5.0 mL multi-dose vial*	≥6 mos(needle/syringe) 18 through 64 yrs (jet injector)		Yes (2
Fluarix Quadrivalent	0.5 mL	≥6 mos	15/0.5mL	N

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Influenza Types

Seasonal

Pandemic

Avian

Swine

Influenza in Animals

Fluarix Quadrivalent *GlaxoSmithKline*	0.5 mL prefilled syringe	≥6 mos	15/0.5mL	N
FluLaval Quadrivalent *GlaxoSmithKline*	0.5 mL prefilled syringe	≥6 mos	15/0.5mL	N
Fluzone Quadrivalent† *Sanofi Pasteur*	0.5 mL prefilled syringe†	≥6 mos	15/0.5 mL See note for dosing†	N
	0.5 mL single-dose vial†	≥6 mos		N
	5.0 mL multi-dose vial†	≥6 mos		Yes (
Quadrivalent IIV (IIV4)—Standard-dose—Cell culture-based (ccIIV4)				
Flucelvax Quadrivalent *Seqirus*	0.5 mL prefilled syringe	≥4 yrs	15/0.5mL	N
	5.0 mL multi-dose vial	≥4 yrs		Yes (
Quadrivalent IIV (IIV4)—High dose—Egg-based (HD-IIV4)				
Fluzone High-Dose Quadrivalent *Sanofi Pasteur*	0.7 mL prefilled syringe	≥65 yrs	60/0.7mL	N
Quadrivalent IIV (IIV4)—Standard-dose—Adjuvanted Egg-based (aIIV4)				
Fluad Quadrivalent *Seqirus*	0.5 mL prefilled syringe	≥65 yrs	15/0.5mL	N
Trivalent IIV (IIV3)—Standard-dose—Adjuvanted—Egg-based (aIIV3)				
Fluad *Seqirus*	0.5 mL prefilled syringe	≥65 yrs	15/0.5mL	N
Quadrivalent RIV (RIV4) – Recombinant HA				
Flublok Quadrivalent *Sanofi Pasteur*	0.5 mL prefilled syringe	≥18 yrs	45/0.5mL	N

Abbreviations: IIV=inactivated influenza vaccine; RIV=recombinant influenza vaccine; HA=hemagglutinin; mos=months; yrs=years.

* *for Afluria Quadrivalent, children aged 6 through 35 months should receive 0.25mL per dose. Persons ≥36 months (≥3 years) should receive 0.5mL per dose.*

† *for Fluzone Quadrivalent, children aged 6 through 35 months may receive either 0.25mL or 0.5mL per dose. Persons ≥ 36 months (≥ 3 years) should receive 0.5mL per*

dose

Administration of IIVs and RIV4

- IIVs and RIV4 are administered intramuscularly (IM):
  - Adults and older children: the deltoid is the preferred site.
  - Infants and younger children: the anterolateral thigh is the preferred site.
  - Detailed guidance for administration sites and needle length is available in the Best Practice Guidelines of the Advisory Committee on Immunization Practices (ACIP) at https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html.
  - Afluria Quadrivalent is licensed for IM administration via jet injector (the Pharmajet Stratis), for persons aged 18 through 64 years only.
  - RIV4 is licensed for persons aged ≥18 years and should not be used for children aged <18 years.

IIV and RIV4 Contraindications and Precautions

Contraindications:

- History of severe allergic reaction to the vaccine or any of its components
  - ACIP recommends that persons with egg allergy of any severity receive influenza vaccine (see Persons with Egg Allergy, above).
  - Information about vaccine components is located in package inserts from each vaccine.

Precautions:

- Moderate or severe acute illness with or without fever.
- Guillain–Barré syndrome within 6 weeks following a previous dose of influenza vaccine.

Live Attenuated Influenza Vaccine (LAIV4)

Trade Name *Manufacturer*	Presentation	Age Indication	Virus Count per dose (each virus)	Thimerosal Yes/No If yes, Mercury, µg/0.2mL
Quadrivalent LAIV (LAIV4) – Egg-based				
FluMist Quadrivalent *AstraZeneca*	0.2 mL prefilled intranasal sprayer	2 through 49 yrs	$10^{6.5–7.5}$ fluorescent focus units/0.2mL	No

Abbreviations: LAIV=live attenuated influenza vaccine; yrs=years.

Administration of LAIV4

- LAIV4 is administered intranasally using the supplied prefilled, single-use sprayer containing 0.2 mL of vaccine.
  - Half of the total sprayer contents is sprayed into the first nostril while the recipient is in the upright position.
  - The attached divider clip is removed and the second half of the dose administered into the other nostril.
- If the vaccine recipient sneezes immediately after administration, the dose should not be repeated.
- If nasal congestion is present that might interfere with delivery of the vaccine to the nasopharyngeal mucosa, deferral should be considered, or another age-appropriate vaccine should be administered.

LAIV4 Contraindications and Precautions

Contraindications:

- History of severe allergic reaction to any vaccine component or after previous dose of any influenza vaccine;
  - ACIP recommends that persons with egg allergy of any severity receive influenza vaccine (see Persons with Egg Allergy, above).
  - Information about vaccine components is located in package inserts from the manufacturer.
- Concomitant aspirin or salicylate-containing therapy in children and adolescents;
- Children aged 2 through 4 years who have received a diagnosis of asthma or whose parents or caregivers report that a health care provider has told them during the preceding 12 months that their child had wheezing or asthma or whose medical record indicates a wheezing episode has occurred during the preceding 12 months;
- Children and adults who are immunocompromised due to any cause, including but not limited to immunosuppression caused by medications, congenital or acquired immunodeficiency states, HIV infection, anatomic asplenia, or functional asplenia (such as that due to sickle-cell anemia);
- Close contacts and caregivers of severely immunosuppressed persons who require a protected environment;
- Pregnancy;
- Persons with active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, or ear or any other cranial CSF leak;
- Persons with cochlear implants (due to the potential for CSF leak, which might exist for some period of time after implantation. Providers might consider consulting with a specialist concerning risk of persistent CSF leak if an age-appropriate inactivated or recombinant vaccine cannot be used);
- Receipt of influenza antiviral medication within the previous 48 hours for oseltamivir and zanamivir, 5 days for peramivir, and 17 days for baloxavir, due to potential for interference with replication of live vaccine virus. Influenza antivirals may also interfere with the action of LAIV4 if given within 2 weeks after vaccination.

Precautions:

- Moderate or severe acute illness with or without fever;
- Guillain–Barré syndrome within 6 weeks following a previous dose of influenza vaccine;
- Asthma in persons aged ≥5 years;
- Other underlying medical conditions that might predispose to complications attributable to severe influenza; e.g., chronic pulmonary, cardiovascular (excluding isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus).

Storage and Handling of Influenza Vaccines

- In all cases, manufacturer packaging information should be consulted for authoritative guidance regarding storage and handling of influenza vaccines.
- For guidance on specific situations not addressed in packaging materials, contact the manufacturer directly.
- Additional information may also be found in the *Vaccine Storage and Handling Toolkit,* which is available at: https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html
- In general:
  - Vaccines should be protected from light and stored at recommended temperatures.
  - Influenza vaccines are recommended to be stored refrigerated between

2° to 8°C (36° to 46°F).

- Vaccine that has been frozen should be discarded.
- Single-dose vials should not be accessed for more than one dose.
- Multidose vials should be returned to recommended storage conditions between uses, and once initially accessed should not be kept beyond the recommended period of time.
- Vaccines should not be used after the expiration date on the label.
- Multidose vials may have a labeled Beyond Use Date (BUD) in addition to the expiration date. The BUD specifies the number of days the vaccine may be used once accessed for the first time. If no BUD is provided, the listed expiration date should be used.

Package information may also specify a maximum number of doses contained in multidose vials (regardless of remaining volume). No more than the specified number of doses should be removed, and any remainder discarded.

Vaccine Abbreviations

- Main influenza vaccine types include:
  - **IIV** = Inactivated Influenza Vaccine
  - **RIV** = Recombinant Influenza Vaccine
  - **LAIV** = Live Attenuated Influenza Vaccine
- Numerals following letter abbreviations indicate:
  - **4** for quadrivalent vaccines: one A(H1N1), one A(H3N2), and two B viruses (one from each lineage)
  - **3** for trivalent vaccines: one A(H1N1), one A(H3N2), and one B virus (from one lineage)
- Prefixes are used when necessary to refer specifically to certain IIVs:
  - **a** for adjuvanted inactivated influenza vaccine (aIIV4, aIIV3)
  - **cc** for cell culture-based inactivated influenza vaccine (ccIIV4)
  - **HD** for high-dose inactivated influenza vaccine (HD-IIV4)
  - **SD** for standard-dose inactivated influenza vaccine (SD-IIV4)

Top of Page

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