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Influenza Vaccines Available During the 2021–22 Season

Vaccines Available

Influenza vaccine options available in the United States this season include the following: Afluria®, Fluarix®, FluLaval®, Fluzone®, Flucelvax®, Fluzone High-Dose®, Fluad®, Flublok®, and FluMist®.¹ The Alaska Immunization Program will supply 7 presentations of quadrivalent influenza vaccine this season (Table).

2021–22 Influenza Vaccine Composition¹

Egg-based influenza vaccines (i.e., vaccines other than ccIIV4 and RIV4) will contain hemagglutinin (HA) derived from:

- influenza A/Victoria/2570/2019 (H1N1) pdm09-like virus
- influenza A/Cambodia/e0826360/2020 (H3N2)-like virus
- influenza B/Washington/02/2019 (Victoria lineage)-like virus
- influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus

Cell culture-based inactivated (ccIIV4) and recombinant (RIV4) influenza vaccines will contain HA derived from:

- influenza A/Wisconsin/588/2019 (H1N1) pdm09-like virus
- influenza A/Cambodia/e0826360/2020 (H3N2)-like virus
- influenza B/Washington/02/2019 (Victoria lineage)-like virus
- influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus

Influenza Vaccine Abbreviations¹

- IIV: inactivated influenza vaccine
- RIV: recombinant influenza vaccine
- LAIV: live attenuated influenza vaccine
- cc: prefix indicating cell culture-based vaccine (e.g., ccIIV4)
- a: prefix indicating adjuvanted inactivated vaccine (e.g., aIIV3)
- Numeric suffix: specifies the number of hemagglutinin (HA) antigens in the vaccine (e.g., IIV4=quadrivalent)

Storage

All influenza vaccine should be stored at 36°–46°F (2°–8°C), and should not be frozen.¹

Inactivated Influenza Vaccines (IIV)

Inactivated influenza vaccine contains inactivated viruses. The IIV vaccines available this season are as follows:

- **Egg-based (IIV4):** Afluria®, Fluarix®, FluLaval®, and Fluzone® are licensed for persons aged ≥6 months.²
- **Cell culture-based (ccIIV4):** Flucelvax® is licensed for persons aged ≥2 years² (note: the influenza viruses are propagated in Madin-Darby canine kidney cells instead of eggs).
- **Egg-based high dose (HD-IIV4):** Fluzone High-Dose® is licensed for persons aged ≥65 years.²
- **Egg-based with MF59 adjuvant (aIIV4):** Fluad® is licensed for persons aged ≥65 years.²

Recombinant Influenza Vaccine (RIV)

Flublok® (RIV4) contains recombinant HA produced in an insect cell line using genetic sequences from cell-derived influenza viruses and is manufactured without the use of influenza viruses or eggs. Flublok® (RIV4) may be used in persons aged ≥18 years.²

Live-Attenuated Influenza Vaccine (LAIV)

FluMist® (LAIV4) contains live, attenuated (weakened), temperature-sensitive (cold-adapted) viruses that are able to replicate efficiently only at temperatures present in the nasal mucosa. If the recipient sneezes immediately after administration, the dose should not be repeated.¹ FluMist® (LAIV4) is available for nonpregnant persons aged 2 through 49 years.²

References

1. CDC. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the ACIP — United States, 2021–22 Influenza Season. *MMWR* 2021;70(5):1-28. Available at: <https://www.cdc.gov/mmwr/volumes/70/rr/pdfs/rr7005a1-H.pdf>
2. U.S. Food and Drug Administration, Vaccines, Blood, and Biologics: Manufacturer Package Inserts. Available at: <https://www.fda.gov/vaccines-blood-biologics/vaccines/vaccines-licensed-use-united-states>
3. Alaska Epidemiology *Bulletin*. “Influenza Vaccine Recommendations and Administration for the 2021–22 Season”. No. 14, September 10, 2021. Available in the future at: http://www.epi.alaska.gov/bulletins/docs/b2021_14.pdf

Table. Alaska Immunization Program Supplied Influenza Vaccines

Trade Name	Manufacturer	Presentation	Age Indication	HA (IIVs/ RIV4) or virus count (VAIV4) for each vaccine virus (per dose)	Route	Mercury (from thimerosal) µg/0.5 mL dose
Standard dose, egg based (IIV4)						
Afluria®	Seqirus	0.25 mL PFS	6–35 months	7.5 µg/0.25 mL dose	IM	--
Fluarix®	GlaxoSmithKline	0.5 mL PFS	≥6 months	15 µg/0.5 mL dose	IM	--
Fluzone®	Sanofi Pasteur	5.0 mL MDV*	≥6 months	15 µg/0.5 mL dose	IM	25
Standard dose, cell culture based (ccIIV4)						
Flucelvax®	Seqirus	0.5 mL PFS	≥2 years	15 µg/0.5 mL dose	IM	--
High dose, egg based (HD-IIV4)						
Fluzone HD®	Sanofi Pasteur	0.7 mL PFS	≥65 years	60 µg/0.7 mL dose	IM	--
Standard dose, egg-based vaccine with MF59 adjuvant (aIIV4)						
Fluad®	Seqirus	0.5 mL PFS	≥65 years	15 µg/0.5 mL dose	IM	--
Egg based (LAIV4)						
FluMist®	AstraZeneca	0.2 mL PFIS	2–49 years	10 fluorescent focus units/0.2mL	NAS	--

Abbreviations: IM = Intramuscular; MDV = Multi-Dose Vial; NAS = Nasal; PFS = Pre-Filled Syringe; PFIS = Pre-Filled Intranasal Spray

*Fluzone Quadrivalent is currently approved for ages 6 through 35 months at either 0.25 mL or 0.5 mL per dose; however, 0.25-mL prefilled syringes are not expected to be available for the 2021–22 influenza season. If a prefilled syringe of Fluzone Quadrivalent is used for a child in this age group, the dose volume will be 0.5 mL per dose.