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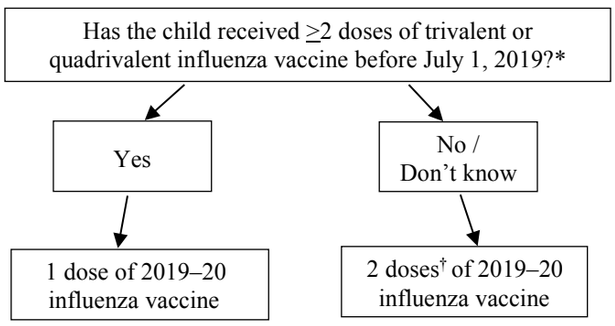
Influenza Vaccines Available During the 2019–20 Season

Recommendations for Vaccination
Routine annual influenza vaccination is recommended for all persons aged ≥6 months who do not have contraindications (Table).[1] Vaccination should occur before onset of the influenza season. CDC recommends that people get vaccinated by the end of October; however, getting vaccinated later can still be beneficial and vaccination should continue to be offered throughout the flu season.

During the 2019–20 influenza season, 16 different presentations of influenza vaccine will be available for purchase.[1] The Alaska Immunization Program will supply four presentations of trivalent or quadrivalent inactivated influenza vaccine (IIV3 or IIV4) and live-attenuated influenza vaccine this season.[2] Vaccine dosage guidelines for children aged 6 months through 8 years are provided below (Figure).[1]

Figure. Influenza Vaccine Dosing Algorithm for Children Aged 6 Months through 8 Years[1]



**Doses need not have been given in the same or consecutive seasons.*[1]
†Doses should be administered ≥4 weeks apart.[1] *Ideally, the first dose should be administered as soon as the vaccine becomes available.*

2019–20 Influenza Vaccine Composition
Trivalent vaccines in the United States will contain an A/Brisbane/02/2018(H1N1)pdm09-like virus, an A/Kansas/14/2017(H3N2)-like virus, and a B/Colorado/06/2017-like virus (Victoria lineage). Quadrivalent vaccines will contain these three vaccine viruses and a B/Phuket/3073/2013-like virus (Yamagata lineage).[1]

Inactivated Influenza Vaccines (IIV)
Inactivated influenza vaccine contains inactivated viruses and cannot cause influenza. IIVs as a class will include the following:

- Egg-based, unadjuvanted, and adjuvanted trivalent influenza vaccines (IIV3)
- Egg-based, or cell culture-based (cc) unadjuvanted quadrivalent influenza vaccines (IIV4)

IIVs available in the United States this season include:

- IIV3: Fluzone® High-Dose[1]
- IIV4: Afluria®, Fluarix®, FluLaval®, and Fluzone®[1]
- ccIIV4: Flucelvax®, approved for persons aged ≥4 years[1]
- aIIV3: Fluad®, approved for persons aged ≥65 years; this vaccine contains adjuvant (a) MF59[1]

Recombinant Influenza Vaccine (RIV)
RIV4 (Flublok®) is egg-free and uses cell culture technology to produce the active ingredient for influenza vaccination (i.e., the hemagglutinin or HA protein). RIV4 may be used in persons aged ≥18 years, including those with severe egg allergy.[1]

Live-Attenuated Influenza Vaccine (LAIV)
LAIV4 (FluMist®) is expected to be available during the 2019–20 influenza season. LAIV4 is administered intranasally using the supplied prefilled, single-use sprayer.[1] Due to manufacturing constraints, the supply of LAIV4 will be limited this 2019–20 season.

Storage and Handling of Influenza Vaccines
Consult manufacturer packaging information for guidance concerning storage and handling.[1] Influenza vaccines are recommended to be protected from light, stored refrigerated between 2° to 8°C (36° to 46°F) and not frozen.[1]

2019–20 State-Supplied Influenza Vaccines
The Alaska Immunization Program will supply four influenza vaccines: Fluzone®, Fluzone® High-Dose, Fluarix®, and FluMist®.[2]

References
1. Grohskopf LA, Alyanak E, Broder KR, Walter EB, Fry AM, Jernigan DB. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2019–20 influenza season. *MMWR* 2019;68(3):1–21. Available at: https://www.cdc.gov/mmwr/volumes/68/rr/pdfs/rr6803-H.pdf
2. Alaska Immunization Program. 2019–20 Influenza Vaccine Choices in VacTrAK. Updated August 5, 2019. Available at: http://dhss.alaska.gov/dph/Epi/iz/Documents/vactrak/docs/VacTrAK_Flu_Vaccines.pdf

Table. Contraindications and Precautions for Influenza Vaccines During the 2019–20 Season[1]

	Contraindications	Precautions
IIV	History of severe allergic reaction to any component of the vaccine or after a previous dose of any influenza vaccine.*	Moderate to severe illness. History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.
RIV	History of severe allergic reaction to any component of the vaccine.	Moderate to severe illness. History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.
LAIV	History of severe allergic reaction to any component of the vaccine or after a previous dose of any influenza vaccine.* Concomitant aspirin- or salicylate-containing therapy in children and adolescents. Asthma in children aged 2 through 4 years. Persons who are immunocompromised due to any cause. Close contacts and caregivers of severely immunosuppressed persons. Pregnancy. Receipt of influenza antiviral medications within the previous 48 hours.	Asthma in persons aged ≥5 years and presence of an underlying medical condition. Moderate to severe illness with or without fever. History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine. Other underlying medical conditions that may predispose to complications after wild-type influenza infection.

**History of severe allergic reaction (e.g., anaphylaxis) to egg is a contraindication to the use of IIV and LAIV. ACIP recommends that any licensed, recommended, and appropriate vaccine (IIV, RIV, or LAIV) may be administered to persons with egg allergy of any severity.*

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