

Comparing *TIV and LAIV*



Parameter	TIV (inactivated virus)	LAIV (live virus)
Efficacy*	Effective for preventing influenza in children and their families. Some studies— but not all—suggest that TIV may be more effective than LAIV in young adults	Effective for preventing influenza in children and their families aged 2 to 49 y. In all head-to-head trials in children comparing LAIV with TIV, LAIV was more effective than TIV in children <5 y old
CDC-recommended recipients	All children ≥6 mo old, including those with chronic medical conditions	Healthy children ≥2 y old and those ≤49 y old
Administration frequency/dosing	Administer annually Children 6 mo-8 y old: 2 doses of vaccine if unvaccinated last year, with second dose administered at least 4 weeks after first dose. Children 6 mo-8 y who received at least 1 dose of 2010-2011 vaccine: 1 dose of 2011-2012 vaccine*** Children ≥9 y old require only 1 dose. Begin administration as soon as vaccine is available, and continue throughout the influenza season.	Administer annually Healthy children ≥2 y old:** 2 doses of vaccine if unvaccinated last year, with second dose administered at least 4 weeks after first dose. Children 6 mo-8 y who received at least 1 dose of 2010-2011 vaccine: 1 dose of 2011-2012 vaccine*** Children ≥9 y old require only 1 dose. Begin administration as soon as vaccine is available, and continue throughout the influenza season.
Administration route	Available in 2 forms: Intramuscular injection and intradermal microinjection—licensed for people ≥18 y. High-dose inactivated vaccine is available for persons >age 65.	Intranasal
Adverse effects	Most common, intramuscular: local injection-site pain and tenderness Others: fever within 24 hours, mild nausea, lethargy, headache, muscle aches and chills, febrile seizures. Most common, intradermal (use only in ages 18-64): redness, induration, swelling, pain, and itching at administration site. Others: headache, myalgia, and malaise	Most common in all ages: runny nose/nasal congestion, low-grade fever Others in all ages: decreased appetite, irritability, lethargy. Most common in adults: runny or stuffy nose, sore throat. Others in adults: headache, muscle aches, chills, tiredness/weakness, cough, sinusitis
Contraindications	Moderate-to-severe (but not mild) febrile illness; Guillain-Barré syndrome experienced within 6 weeks after an earlier influenza vaccination****	Moderate-to-severe (but not mild) febrile illness; Guillain-Barré syndrome experienced within 6 weeks after an earlier influenza vaccination; copious nasal congestion; receipt of other live-virus vaccines within previous 4 weeks; history of wheezing with respiratory tract illnesses; pregnancy; receiving long-term aspirin or other salicylates; medical conditions that increase risk of influenza complications, such as asthma or other chronic pulmonary/cardiovascular disorders; neurologic/neuromuscular diseases; metabolic disease, renal/hepatic dysfunction; hemoglobinopathies

*Both TIV and LAIV have been found effective against influenza infection; data from direct comparisons of the efficacy of the 2 vaccines are limited.

**LAIV is not approved for use in children <2 years because in safety trials it was associated with increased hospitalization and wheezing in children in this age group. LAIV is not recommended for individuals with conditions that increase the risk of influenza complications because the vaccine's safety has not been established for this group of people.

***For this season, the usual second dose is not required in these children because the vaccine strains in this year's formulations are the same as those in last year's.

****According to the CDC, recent data show that children with egg allergy generally can safely tolerate TIV influenza vaccination. An allergy consultation, therefore, is no longer necessary unless the child has a history of severe reaction to egg.

TIV=trivalent inactivated influenza vaccine; LAIV=live attenuated influenza vaccine; CDC=Centers for Disease Control and Prevention.

Advisory Committee on Immunization Practices. *MMWR*. 2011;60:1128-1132.

Belshe RB, Ambrose CS, Yi Tingting. *Vaccine*. 2008;26(suppl 4):D10-D16.

American Academy of Pediatrics Committee on Infectious Diseases. *Pediatrics*. 2011;128:817.

CDC. www.cdc.gov/flu/professionals/vaccination/vaccine_safety.htm, pp2,4,5.