



# A Quick Look at Inactivated Influenza Vaccines (trivalent and quadrivalent): IIV3, IIV4, IIV3 ID, IIV3 High Dose

<p><b>Annual influenza vaccination is recommended for all persons 6 months of age and older, including all healthy persons!</b></p> <p><b>Indications for Use and Schedule</b></p> <ul style="list-style-type: none"> <li>IIV3 (IM) or IIV4 (IM): For persons aged 6 months and older             <ul style="list-style-type: none"> <li>Age range for use varies by brand</li> </ul> </li> <li>IIV3 Intradermal (ID): For persons aged 18 through 64 years</li> <li>IIV3 High Dose (IM): For persons aged 65 years and older</li> <li>Begin vaccinating as soon as flu vaccine is available and continue throughout the flu season (until vaccine expires)</li> </ul> <p><b>MCIR 2-Dose Pediatric Rule for Children aged 6 Months through 8 Years*</b></p> <ul style="list-style-type: none"> <li>Those without the following documented history will need 2 doses of flu vaccine:             <ul style="list-style-type: none"> <li><u>At least 2 doses</u> of any seasonal flu vaccine (IIV/LAIV) given                 <ul style="list-style-type: none"> <li>From the same or 2 different past flu seasons</li> </ul> </li> </ul> </li> </ul> <p style="text-align: center;"><b>AND</b></p> <ul style="list-style-type: none"> <li><u>At least 1 dose</u> of the seasonal flu vaccine given between July 1, 2010 &amp; June 30, 2013 <b>or</b> the child had <u>at least 1 dose</u> of monovalent 2009 H1N1 vaccine</li> </ul> <ul style="list-style-type: none"> <li>If 2 doses are indicated, vaccines should be separated by at least 4 weeks</li> </ul>	<p><b>Administration</b></p> <ul style="list-style-type: none"> <li>Administer IIV3, IIV4 &amp; IIV3 High Dose IM<sup>1</sup> <ul style="list-style-type: none"> <li>Children: 1 inch needle</li> <li>Adolescents/adults: 1-1.5 inch needle</li> </ul> </li> <li>Administer IIV3 ID only over deltoid area of arm, using the manufacturer's pre-filled syringe</li> <li>Administer age-appropriate IIV3 or IIV4 dosage:             <ul style="list-style-type: none"> <li>6-35 months → 0.25 mL (each dose)</li> <li>3 years &amp; older → 0.5 mL (each dose)</li> </ul> </li> <li>IIV can be given with all other vaccines</li> </ul> <p><b>Storage and Handling: All IIV</b></p> <ul style="list-style-type: none"> <li>Store in the refrigerator unit</li> <li>Do NOT freeze</li> <li>Keep in original box with lid on</li> <li>Store different IIV formulations apart &amp; label with age indication</li> <li>Do NOT use expired vaccine</li> </ul> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p><b>All IIV</b> 35°-46°F (2°-8° C)</p> </div>
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**\*Additional information on the 2-Dose Pediatric Rule**

- It is preferred that when two doses are needed that the same vaccine type be used: two IIV3, two IIV4 or two LAIV4, however a mix of these vaccines may be used to complete the 2 dose series.
- Refer to "Who Needs 2 Doses of 2013-14 Seasonal Influenza Vaccine?" at [www.michigan.gov/flu](http://www.michigan.gov/flu)

**Contraindications**

- Serious allergic reaction (e.g. anaphylaxis) to a previous dose of flu vaccine or one of its components

**Precautions**

- Moderate or severe acute illness
- History of Guillain-Barré Syndrome (GBS) within 6 weeks of a previous influenza vaccination

**Note:** For persons who report an egg allergy: give Recombinant Influenza Vaccine, trivalent (RIV3) to those aged 18-49 years if available **or**, determine if it is safe to give Inactivated Influenza Vaccine, trivalent (IIV3) or quadrivalent (IIV4).

- Refer to: "Influenza Vaccine Screening Algorithm for Persons who Report an Egg Allergy" available at [www.michigan.gov/flu](http://www.michigan.gov/flu)

**Further points to consider**

- IIV3 (including IIV3 ID & IIV3 High Dose): contains protection against 2 "A" flu strains and 1 "B" flu strain
- IIV4: Contains protection against 2 "A" flu strains (same as IIV3) and 2 "B" flu strains (1 same as IIV3 & 1 additional "B" strain)
- Febrile seizures occur in 2-5% of all children. In the last 2 seasons following simultaneous administration of IIV & PCV13, an increase risk (<1 per 1,000 children vaccinated) was observed in children aged 16 mos-4 yrs. ACIP considered benefit of receiving IIV & PCV13 versus risk; no changes in recommendation have been made and if needed, IIV & PCV13 should be given simultaneously.
- Give only IIV formulations with antiviral medications; Do not give LAIV; For further information: [www.cdc.gov/flu](http://www.cdc.gov/flu)
- Use the same Vaccine Information Statement (VIS) for any brand/type of IIV3 or IIV4.
- Use the current IIV VIS, including information about MCIR. The Michigan VIS is posted at [www.michigan.gov/immunize](http://www.michigan.gov/immunize)
- Document all flu doses in Michigan Care Improvement Registry (MCIR) on the "Add Imm" screen under "Vaccine" as:
  - IIV3 in multi-dose vials as "Influenza IIV3 (Inject)"; IIV3 in pre-filled syringe and single-dose vials (0.25mL or 0.5mL) as "Influenza IIV3 (P-free inj)"
  - IIV3 ID = "Influenza Intradermal IIV3 (P-Free)"; IIV3 High Dose = "Influenza High Dose IIV3"
  - IIV4 in prefilled syringe and single-dose vials (0.25mL or 0.5mL as "Influenza IIV4 (P-Free, inject)
- Document the type of vaccine given on the vaccine administration record & record card as "IIV3", "IIV4" "IIV3 ID" or "IIV3 High Dose"
- ACIP has not expressed a preference between any IIV3 (including IIV3 ID, IIV3 High Dose) and IIV4 formulation
- There are 2 other IIV3 formulations not included on this form; refer to package inserts for information on Recombinant Inactivated Vaccine, trivalent (RIV3; Flublok, Protein Science) or cell-cultured Inactivated Influenza Vaccine, trivalent (cIIV3; Flucelvax, Novartis)
- For LAIV4: refer to "A Quick Look at Live, Attenuated Influenza Vaccine, Quadrivalent (LAIV4)" at [www.michigan.gov/immunize](http://www.michigan.gov/immunize)

<sup>1</sup>Administration site (anterolateral thigh or deltoid) will vary by age. Use professional judgment when determining site and needle length. Refer to "Administering Influenza Vaccines" (IIV3/IIV4, IIV3 High Dose & LAIV4) and "Administering Intradermal Influenza Vaccine" (IIV3 ID) at [www.michigan.gov/flu](http://www.michigan.gov/flu)