<table>
<thead>
<tr>
<th>Trade name</th>
<th>Manufacturer</th>
<th>Presentation</th>
<th>Mercury content from thimerosal (µg Hg/0.5 mL)</th>
<th>Ovalbumin content (µg/0.5mL)</th>
<th>Age indications</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluarix Quadrivalent</td>
<td>GlaxoSmithKline</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>≤0.05</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td>FluLaval Quadrivalent</td>
<td>ID Biomedical Corporation of Quebec (distributed by GlaxoSmithKline)</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>≤0.3</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>&lt;25</td>
<td>≤0.3</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td>Fluzone Quadrivalent</td>
<td>Sanofi Pasteur</td>
<td>0.25 mL single-dose prefilled syringe</td>
<td>—</td>
<td>$$$</td>
<td>6–35 mos</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>$$$</td>
<td>≥36 mos</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 mL single-dose vial</td>
<td>—</td>
<td>$$$</td>
<td>≥36 mos</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>25</td>
<td>$$$</td>
<td>≥6 mos</td>
<td>IM†</td>
</tr>
<tr>
<td>Trade name</td>
<td>Manufacturer</td>
<td>Presentation</td>
<td>Mercury content from thimerosal (µg Hg/0.5 mL)</td>
<td>Ovalbumin content (µg/0.5mL)</td>
<td>Age indications</td>
<td>Route</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>--------------</td>
<td>----------------------------------------------</td>
<td>-------------------------------</td>
<td>-----------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Inactivated influenza vaccine, trivalent (IIV3), standard dose</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contraindications*: Severe allergic reaction to any component of the vaccine, including egg protein, or after previous dose of any influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precautions*: Moderate to severe illness with or without fever; history of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afluria</td>
<td>bioCSL</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>&lt;1</td>
<td>≥9 yrs***</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>24.5</td>
<td>&lt;1</td>
<td>≥9 yrs*** via needle/syringe; 18-64 years via jet injector****</td>
<td>IM†</td>
</tr>
<tr>
<td>Fluarix</td>
<td>GlaxoSmithKline</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>≤0.05</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td>FluLaval</td>
<td>ID Biomedical Corporation of Quebec (distributed by GlaxoSmithKline)</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>≤0.3</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>&lt;25</td>
<td>≤0.3</td>
<td>≥3 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td>Fluvirin</td>
<td>Novartis Vaccines and Diagnostics</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>≤1</td>
<td>≤1</td>
<td>≥4 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>25</td>
<td>≤1</td>
<td>≥4 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td>Fluzone</td>
<td>Sanofi Pasteur</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>§§§</td>
<td>≥36 mos</td>
<td>IM†</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.0 mL multidose vial</td>
<td>25</td>
<td>§§§</td>
<td>≥6 mos</td>
<td>IM†</td>
</tr>
<tr>
<td>Fluzone Intradermal§</td>
<td>Sanofi Pasteur</td>
<td>0.1 mL prefilled microinjection system</td>
<td>—</td>
<td>§§§</td>
<td>18–64 yrs</td>
<td>ID**</td>
</tr>
<tr>
<td>Trade name</td>
<td>Manufacturer</td>
<td>Presentation</td>
<td>Mercury content from thimerosal (µg Hg/0.5 mL)</td>
<td>Ovalbumin content (µg/0.5mL)</td>
<td>Age indications</td>
<td>Route</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------------</td>
<td>-----------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Inactivated influenza vaccine, trivalent, standard dose, cell culture-based (ccIIV3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contraindications*: Severe allergic reaction to any component of the vaccine, including egg protein, or after previous dose of any influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precautions*: Moderate to severe illness with or without fever; history of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flucelvax</td>
<td>Novartis Vaccines and Diagnostics</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>†††</td>
<td>≥18 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td><strong>Inactivated influenza vaccine, trivalent (IIV3), high dose</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contraindications*: Severe allergic reaction to any component of the vaccine, including egg protein, or after previous dose of any influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precautions*: Moderate to severe illness with or without fever; history of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluzone High-Dose††</td>
<td>Sanofi Pasteur</td>
<td>0.5 mL single-dose prefilled syringe</td>
<td>—</td>
<td>$$$</td>
<td>≥65 yrs</td>
<td>IM†</td>
</tr>
<tr>
<td><strong>Recombinant influenza vaccine, trivalent (RIV3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contraindications*: Severe allergic reaction to any component of the vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precautions*: Moderate to severe illness with or without fever; history of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FluBlok</td>
<td>Protein Sciences</td>
<td>0.5 mL single-dose vial</td>
<td>—</td>
<td>0</td>
<td>≥18 yrs</td>
<td>IM†</td>
</tr>
</tbody>
</table>
### Live attenuated influenza vaccine, quadrivalent (LAIV4)

**Contraindications**: Severe allergic reaction to any component of the vaccine, including egg protein, or after previous dose of any influenza vaccine. Concomitant use of aspirin or aspirin-containing medications in children and adolescents.

In addition, ACIP recommends LAIV4 not be used for pregnant women, immunosuppressed persons, persons with egg allergy, and children aged 2–4 years who have asthma or who have had a wheezing episode noted in the medical record within the past 12 months, or for whom parents report that a health care provider stated that they had wheezing or asthma within the last 12 months.

LAIV should not be administered to persons who have taken influenza antiviral medications within the previous 48 hours. Persons who care for severely immunosuppressed persons who require a protective environment should not receive LAIV, or should avoid contact with such persons for 7 days after receipt.

**Precautions**: Moderate to severe illness with or without fever. History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine. Asthma in persons aged 5 years and older. Medical conditions which might predispose to higher risk for complications attributable to influenza.

**Abbreviations**: IM = intramuscular; ID = intradermal; IN = intranasal; ACIP = Advisory Committee on Immunization Practices.

* Immunization providers should check Food and Drug Administration–approved prescribing information for 2014–15 influenza vaccines for the most complete and updated information, including (but not limited to) indications, contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at [http://www.fda.gov/biologicsbloodvaccines/vaccines/approvedproducts/ucm093833.htm](http://www.fda.gov/biologicsbloodvaccines/vaccines/approvedproducts/ucm093833.htm).

† For adults and older children, the recommended site of vaccination is the deltoid muscle. The preferred site for infants and young children is the anterolateral aspect of the thigh. Specific guidance regarding site and needle length for intramuscular administration can be found in ACIP's *General Recommendations on Immunization* (available at [http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm)).

§ Trivalent inactivated vaccine, intradermal: A 0.1-mL dose contains 9 µg of each vaccine antigen (27 µg total).  

<table>
<thead>
<tr>
<th>Trade name</th>
<th>Manufacturer</th>
<th>Presentation</th>
<th>Mercury content from thimerosal (µg Hg/0.5 mL)</th>
<th>Ovalbumin content (µg/0.5mL)</th>
<th>Age indications</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>FluMist</td>
<td>MedImmune</td>
<td>0.2 mL single-dose prefilled intranasal sprayer</td>
<td>—</td>
<td>&lt;0.24 (per 0.2mL)</td>
<td>2–49 yrs</td>
<td>IN</td>
</tr>
</tbody>
</table>

**Notes**:
- FluMist Quadrivalent§§
- Abbreviations: IM = intramuscular; ID = intradermal; IN = intranasal; ACIP = Advisory Committee on Immunization Practices.
** The preferred site is over the deltoid muscle. Fluzone Intradermal is administered using the delivery system included with the vaccine.

†† Trivalent inactivated vaccine, high-dose: A 0.5-mL dose contains 60 µg of each vaccine antigen (180 µg total).

§§ FluMist is shipped refrigerated and stored in the refrigerator at 35°F–46°F (2°C–8°C) after arrival in the vaccination clinic. The dose is 0.2 mL divided equally between each nostril. Health care providers should consult the medical record, when available, to identify children aged 2 through 4 years with asthma or recurrent wheezing that might indicate asthma. In addition, to identify children who might be at greater risk for asthma and possibly at increased risk for wheezing after receiving LAIV, parents or caregivers of children aged 2 through 4 years should be asked, "In the past 12 months, has a health care provider ever told you that your child had wheezing or asthma?" Children whose parents or caregivers answer "yes" to this question and children who have asthma or who had a wheezing episode noted in the medical record within the past 12 months should not receive FluMist.

*** Age indication per package insert is ≥5 years; however, ACIP recommends Afluria not be used in children aged 6 months through 8 years because of increased risk for febrile reactions noted in this age group with bioCSL’s 2010 Southern Hemisphere IIV3. If no other age-appropriate, licensed inactivated seasonal influenza vaccine is available for a child aged 5 through 8 years who has a medical condition that increases the child’s risk for influenza complications, Afluria can be used; however, providers should discuss with the parents or caregivers the benefits and risks of influenza vaccination with Afluria before administering this vaccine. Afluria may be used in persons aged ≥9 years.

††† Information not included in package insert. Estimated to contain <50 femtograms (5x10^-8 µg) of total egg protein (of which ovalbumin is a fraction) per 0.5 mL dose of Flucelvax.

§§§ Available upon request from Sanofi Pasteur (telephone: 1-800-822-2463; e-mail: mis.emails@sanofipasteur.com).

**** On August 15, 2014, the FDA approved Afluria for IM administration via the Pharmajet Stratis® jet injector, for persons aged 18 through 64 years.