During the 2018–2019 influenza season, multiple formulations of flu vaccine are available for persons aged 65 years and older. The Centers for Disease Control and Prevention (CDC) does not state a preference for adjuvanted*, high-dose or standard-dose flu vaccine for persons 65 years and older. However, there is evidence that high-dose and adjuvanted flu vaccines are more effective than standard-dose, unadjuvanted vaccine in preventing medically-attended, lab-confirmed influenza infection in this population.

If multiple vaccine products are available, the Washington Vaccine Advisory Committee recommends that healthcare providers offer high-dose or adjuvanted flu vaccine to patients 65 years of age or older. If high-dose vaccine is not available and another opportunity to vaccinate the patient before the end of October is uncertain, standard-dose flu vaccine should be administered.

*An **adjuvant** is a substance that enhances the body’s immune response to a vaccine

**Summary of immunogenicity and clinical efficacy/effectiveness data:**

- **Fluzone High-Dose** – Contains four times more antigen than the standard-dose flu vaccine and has been shown to produce a higher antibody response than standard-dose vaccine in older adults.2-3
  - One randomized controlled trial comparing the efficacy of high- vs. standard-dose flu vaccine showed the high-dose vaccine had 24% greater efficacy against any lab-confirmed influenza infection compared to standard-dose flu vaccine (95% CI: 9.7%-36.5%). Based on this study, the high-dose vaccine would prevent about 5 additional cases of lab-confirmed influenza for every 1000 people vaccinated.4
  - A separate study among those living in long-term care facilities reported high-dose flu vaccine was associated with a lower risk of respiratory-related hospital admissions compared with standard-dose vaccine.5
  - Recent meta-analyses showed that high-dose inactivated influenza vaccine was more likely than standard dose vaccine to prevent influenza and its complications.6-7

- **FLUAD™** – Approved through accelerated-approval process in November 2015,8-9 FLUAD™ is the first adjuvanted flu vaccine marketed in the United States and was FDA licensed for use starting in the 2016-17 flu season.
  - Studies have shown that FLUAD™ induces antibody levels similar to those induced by flu vaccine without adjuvant.8
  - One case-control study performed in Canada during the 2011–12 season showed that FLUAD™ was significantly more effective at preventing lab-confirmed influenza infection in older adults compared to a trivalent vaccine without an adjuvant.10
  - A recent systematic review and meta-analysis showed that adjuvanted influenza vaccine is more effective than unadjuvanted vaccine at preventing influenza-related complications.11
• **FLUAD™ & Fluzone High-Dose** - prospective, randomized, blinded clinical trial is designed for the 2017-18 and 2018-19 influenza seasons to compare safety and immunogenicity of FLUAD™ vs. Fluzone High-Dose.\(^2\)

**Summary of safety data**

• **Fluzone High-Dose** – Recipients of high-dose influenza vaccine more commonly report mild and/or moderate side effects than recipients of standard-dose influenza vaccine.\(^1\) The most common adverse events have been mild and temporary, and include pain, redness and swelling at the injection site, headache, myalgia, fever and malaise.\(^5\)

• **FLUAD™** – Some adverse events are reported more frequently after vaccination with FLUAD™ than vaccines without adjuvants. The most common adverse events experienced during clinical studies were mild to moderate, and included pain, redness at the injection site, headache, muscle aches, and malaise.\(^8\)

References


2 FDA. Vaccines, Blood & Biologics – Fluzone, Fluzone High-Dose and Fluzone Intradermal (https://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm112854.htm)


7 FDA. Vaccines, Blood & Biologics – FLUAD™ Approval (http://www.fda.gov/biologicsbloodvaccines/safetyavailability/vaccinesafety/ucm473989.htm)


**Other Resources**

CDC: [http://www.cdc.gov/flu/protect/vaccine/ga_fluzone.htm](http://www.cdc.gov/flu/protect/vaccine/ga_fluzone.htm)

CDC: [http://www.cdc.gov/flu/protect/vaccine/adjuvant.htm](http://www.cdc.gov/flu/protect/vaccine/adjuvant.htm)