

**FLUZONE HD TIV SH 2025- influenza a virus a/victoria/4897/2022 ivr-238 (h1n1) antigen (formaldehyde inactivated), influenza a virus a/croatia/10136rv/2023 x-425a (h3n2) antigen (formaldehyde inactivated), and influenza b virus b/michigan/01/2021 antigen (formaldehyde inactivated) injection, suspension
Sanofi Pasteur Inc.**

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Fluzone® High-Dose Southern Hemisphere safely and effectively. See full prescribing information for Fluzone High-Dose Southern Hemisphere.

**Fluzone High-Dose Southern Hemisphere (Influenza Vaccine) injectable suspension, for intramuscular use 2025 Formula
Initial U.S. Approval: 2009**

INDICATIONS AND USAGE

Fluzone High-Dose Southern Hemisphere is a vaccine indicated for active immunization for the prevention of disease caused by influenza A subtype viruses and type B virus contained in the vaccine. (1)
Fluzone High-Dose Southern Hemisphere is approved for use in persons 65 years of age and older. (1)

DOSAGE AND ADMINISTRATION

For intramuscular use

Administer Fluzone High-Dose Southern Hemisphere as a single 0.5 mL dose. (2)

DOSAGE FORMS AND STRENGTHS

Fluzone High-Dose Southern Hemisphere is an injectable suspension. A single dose is 0.5 mL. (3)

CONTRAINDICATIONS

Do not administer Fluzone High-Dose Southern Hemisphere to anyone with a history of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine, including egg protein, or to a previous dose of any influenza vaccine. (4, 11)

WARNINGS AND PRECAUTIONS

- If Guillain-Barré syndrome (GBS) has occurred within 6 weeks following previous influenza vaccination, the decision to give Fluzone High-Dose Southern Hemisphere should be based on careful consideration of the potential benefits and risks. (5.1)

ADVERSE REACTIONS

- In adults ≥65 years of age, the most common (>10%) injection-site adverse reaction was pain (>35.6%); the most common solicited systemic adverse reactions were myalgia (21.4%), malaise (18.0%), and headache (16.8%). (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Sanofi Pasteur Inc., Discovery Drive, Swiftwater, PA 18370 at 1-800-822-2463 (1-800-VACCINE) or VAERS at 1-800-822-7967 or <https://vaers.hhs.gov>.

See 17 for PATIENT COUNSELING INFORMATION and FDA-approved patient labeling.

Revised: 3/2025

FULL PRESCRIBING INFORMATION: CONTENTS*

1 INDICATIONS AND USAGE

2 DOSAGE AND ADMINISTRATION

2.1 Dose and Schedule

2.2 Administration

3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

5 WARNINGS AND PRECAUTIONS

5.1 Guillain-Barré Syndrome

5.2 Preventing and Managing Allergic Reactions

5.3 Altered Immunocompetence

5.4 Limitations of Vaccine Effectiveness

5.5 Syncope

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

6.2 Postmarketing Experience

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

8.2 Lactation

8.4 Pediatric Use

8.5 Geriatric Use

11 DESCRIPTION

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

13 NON-CLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

14 CLINICAL STUDIES

14.1 Immunogenicity of Fluzone High-Dose in Adults 65 Years of Age and Older

14.2 Efficacy of Fluzone High-Dose in Adults 65 Years of Age and Older

15 REFERENCES

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

16.2 Storage and Handling

17 PATIENT COUNSELING INFORMATION

* Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Fluzone[®] High-Dose Southern Hemisphere is a vaccine indicated for active immunization for the prevention of disease caused by influenza A subtype viruses and type B virus contained in the vaccine.

Fluzone High-Dose Southern Hemisphere is approved for use in persons 65 years of age and older.

2 DOSAGE AND ADMINISTRATION

For intramuscular use

2.1 Dose and Schedule

Administer Fluzone High-Dose Southern Hemisphere as a single 0.5 mL dose.

2.2 Administration

Fluzone High-Dose Southern Hemisphere is a colorless opalescent liquid. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit. If either of these conditions exist, the vaccine should not be administered.

Before administering a dose of vaccine, shake the prefilled syringe.

Administer Fluzone High-Dose Southern Hemisphere intramuscularly.

3 DOSAGE FORMS AND STRENGTHS

Fluzone High-Dose Southern Hemisphere is an injectable suspension.

A single dose is 0.5 mL.

4 CONTRAINDICATIONS

Do not administer Fluzone High-Dose Southern Hemisphere to anyone with a history of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine [see Description (11)], including egg protein, or to a previous dose of any influenza vaccine.

5 WARNINGS AND PRECAUTIONS

5.1 Guillain-Barré Syndrome

If Guillain-Barré syndrome (GBS) has occurred within 6 weeks following previous influenza vaccination, the decision to give Fluzone High-Dose Southern Hemisphere should be based on careful consideration of the potential benefits and risks.

The 1976 swine influenza vaccine was associated with an elevated risk of GBS. Evidence for a causal relation of GBS with other influenza vaccines is inconclusive; if an excess risk exists, it is probably slightly more than 1 additional case per 1 million persons vaccinated. (See reference 1.)

5.2 Preventing and Managing Allergic Reactions

Appropriate medical treatment must be immediately available to manage potential anaphylactic reactions following administration of Fluzone High-Dose Southern Hemisphere.

5.3 Altered Immunocompetence

If Fluzone High-Dose Southern Hemisphere is administered to immunocompromised persons, including those receiving immunosuppressive therapy, the expected immune response may not be obtained.

5.4 Limitations of Vaccine Effectiveness

Vaccination with Fluzone High-Dose Southern Hemisphere may not protect all recipients.

5.5 Syncope

Syncope (fainting) has been reported following vaccination with Fluzone High-Dose. Procedures should be in place to avoid injury from fainting.

6 ADVERSE REACTIONS

The safety experience with Fluzone High-Dose is relevant to Fluzone High-Dose Southern Hemisphere because both vaccines are manufactured using the same process. Following administration of Fluzone High-Dose, the most common (>10%) injection-site adverse reaction was pain (>35.6%); the most common solicited systemic adverse reactions were myalgia (21.4%), malaise (18.0%), and headache (16.8%). [see *Adverse Reactions (6.1)*].

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse event rates observed in the clinical trial(s) of a vaccine cannot be directly compared to rates in the clinical trial(s) of another vaccine and may not reflect the rates observed in practice. Two clinical studies have evaluated the safety of Fluzone High-Dose.

Study 1 (NCT00391053) was a multi-center, double-blind trial conducted in the US. In this study, adults 65 years of age and older were randomized to receive either Fluzone High-Dose or Fluzone (2006–2007 formulation). The study compared the safety and immunogenicity of Fluzone High-Dose to those of Fluzone. The safety analysis set included 2573 Fluzone High-Dose recipients and 1260 Fluzone recipients.

Table 1 summarizes solicited injection-site reactions and systemic adverse reactions reported within 7 days post-vaccination via diary cards. Onset was usually within the first 3 days after vaccination and a majority of the reactions resolved within 3 days. Solicited injection-site reactions and systemic adverse reactions were more frequent after vaccination with Fluzone High-Dose compared to Fluzone.

Table 1: Frequency of Solicited Injection-Site Reactions and Systemic Adverse Reactions Within 7 Days After Vaccination with Fluzone High-Dose or Fluzone, Adults 65 Years of Age and Older (Study 1*)

	Fluzone High-Dose (N [†] =2569-2572) Percentage			Fluzone (N [†] =1258-1260) Percentage		
	Any	Moderate [‡]	Severe [§]	Any	Moderate [‡]	Severe [§]
Injection-Site Pain	35.6	3.7	0.3	24.3	1.7	0.2
Injection-Site Erythema	14.9	1.9	1.8	10.8	0.8	0.6
Injection-Site Swelling	8.9	1.6	1.5	5.8	1.3	0.6

Myalgia	21.4	4.2	1.6	18.3	3.2	0.2
Malaise	18.0	4.7	1.6	14.0	3.7	0.6
Headache	16.8	3.1	1.1	14.4	2.5	0.3
Fever[¶] (≥99.5°F)	3.6	1.1	0.0	2.3	0.2	0.1

* NCT00391053

† N is the number of vaccinated participants with available data for the reactions listed

‡ Moderate - Injection-site pain: sufficiently discomforting to interfere with normal behavior or activities; Injection-site erythema and Injection-site swelling: ≥2.5 cm to <5 cm; Fever: >100.4°F to ≤102.2°F; Myalgia, Malaise, and Headache: interferes with daily activities

§ Severe - Injection-site pain: incapacitating, unable to perform usual activities; Injection-site erythema and Injection-site swelling: ≥5 cm; Fever: >102.2°F; Myalgia, Malaise, and Headache: prevents daily activities

¶ Fever - The percentage of temperature measurements that were taken by oral route or not recorded were 97.9% and 2.1%, respectively, for Fluzone High-Dose; and 98.6% and 1.4%, respectively, for Fluzone

Within 6 months post-vaccination, 156 (6.1%) Fluzone High-Dose recipients and 93 (7.4%) Fluzone recipients experienced a serious adverse event (SAE). No deaths were reported within 28 days post-vaccination. A total of 23 deaths were reported during Days 29 – 180 post-vaccination:

16 (0.6%) among Fluzone High-Dose recipients and 7 (0.6%) among Fluzone recipients. The majority of these participants had a medical history of cardiac, hepatic, neoplastic, renal, and/or respiratory diseases. These data do not provide evidence for a causal relationship between deaths and vaccination with Fluzone High-Dose.

Study 2 (NCT01427309) was a multi-center, double-blind post- licensure efficacy trial conducted in the US and Canada over two influenza seasons. In this study, adults 65 years of age and older were randomized to receive either Fluzone High-Dose or Fluzone (2011–2012 and 2012–2013 formulations). The study compared the efficacy and safety of Fluzone High-Dose to those of Fluzone. The safety analysis set included 15,992 Fluzone High-Dose recipients and 15,991 Fluzone recipients.

Within the study surveillance period (approximately 6 to 8 months post-vaccination), 1323 (8.3%) Fluzone High-Dose recipients and 1442 (9.0%) Fluzone recipients experienced an SAE. Within 30 days post-vaccination, 204 (1.3%) Fluzone High-Dose recipients and 200 (1.3%) Fluzone recipients experienced an SAE. The majority of these participants had one or more chronic comorbid illnesses. A total of 167 deaths were reported within 6 to 8 months post-vaccination: 83 (0.5%) among Fluzone High-Dose recipients and 84 (0.5%) among Fluzone recipients. A total of 6 deaths were reported within 30 days post-vaccination: 6 (0.04%) among Fluzone High-Dose recipients and 0 (0%) among Fluzone recipients. These data do not provide evidence for a causal relationship between deaths and vaccination with Fluzone High-Dose.

6.2 Postmarketing Experience

The following events have been spontaneously reported during the postmarketing use of Fluzone, Fluzone High-Dose, Fluzone Quadrivalent, or Fluzone High-Dose Quadrivalent. This safety experience is relevant to Fluzone High-Dose Southern Hemisphere because all these vaccines are manufactured using the same process. Because these events are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship

to vaccine exposure. Adverse events were included based on one or more of the following factors: severity, frequency of reporting, or strength of evidence for a causal relationship to the vaccine.

- *Blood and Lymphatic System Disorders:* Thrombocytopenia, lymphadenopathy
- *Immune System Disorders:* Anaphylaxis, other allergic/hypersensitivity reactions (including urticaria, angioedema)
- *Eye Disorders:* Ocular hyperemia
- *Nervous System Disorders:* Guillain-Barré syndrome (GBS), convulsions, febrile convulsions, myelitis (including encephalomyelitis and transverse myelitis), facial palsy (Bell's palsy), optic neuritis/neuropathy, brachial neuritis, syncope (shortly after vaccination), dizziness, paresthesia
- *Vascular Disorders:* Vasculitis, vasodilatation/flushing
- *Respiratory, Thoracic and Mediastinal Disorders:* Dyspnea, oropharyngeal pain, rhinorrhea, cough, wheezing, throat tightness
- *Skin and Subcutaneous Tissue Disorders:* Stevens-Johnson syndrome
- *General Disorders and Administration Site Conditions:* Pruritus, asthenia/fatigue, pain in extremities, chest pain, chills
- *Gastrointestinal Disorders:* Vomiting, nausea, diarrhea
- *Musculoskeletal and Connective Tissue Disorders:* Arthralgia

8 USE IN SPECIFIC POPULATIONS

Fluzone High-Dose Southern Hemisphere and Fluzone High-Dose are manufactured using the same process. Data in this section were obtained in studies with Fluzone High-Dose.

8.1 Pregnancy

Fluzone High-Dose Southern Hemisphere is not approved for use in persons <65 years of age.

There are limited human data and no animal data available to establish whether there is a vaccine-associated risk with use of Fluzone High-Dose Southern Hemisphere in pregnancy.

8.2 Lactation

Fluzone High-Dose Southern Hemisphere is not approved for use in persons <65 years of age. No human or animal data are available to assess the effects of Fluzone High-Dose Southern Hemisphere on the breastfed infant or on milk production/excretion.

8.4 Pediatric Use

Safety and effectiveness of Fluzone High-Dose Southern Hemisphere in persons <65 years of age have not been established.

8.5 Geriatric Use

Safety, immunogenicity, and efficacy of Fluzone High-Dose have been evaluated in adults 65 years of age and older. [See *Adverse Reactions (6.1)* and *Clinical Studies (14)*]

11 DESCRIPTION

Fluzone High-Dose Southern Hemisphere (Influenza Vaccine) for intramuscular use is an inactivated influenza vaccine, prepared from influenza viruses propagated in embryonated chicken eggs. The virus-containing allantoic fluid is harvested and inactivated with formaldehyde. Influenza virus is concentrated and purified in a linear sucrose density gradient solution using a continuous flow centrifuge. The virus is then chemically disrupted using a non-ionic surfactant, octylphenol ethoxylate (Triton® X-100), producing a "split virus". The split virus containing hemagglutinin (HA) antigen is further purified and then suspended in sodium phosphate-buffered isotonic sodium chloride solution. The Fluzone High-Dose Southern Hemisphere process uses an additional concentration factor after the ultrafiltration step to obtain a higher HA antigen concentration. The purified split virus from the three strains included in the vaccine are produced separately and then combined to make the trivalent formulation.

Fluzone High-Dose Southern Hemisphere is an injectable suspension and is a colorless opalescent liquid.

Neither antibiotics nor preservative are used in the manufacture of Fluzone High-Dose Southern Hemisphere.

The Fluzone High-Dose Southern Hemisphere prefilled syringe presentation is not made with natural rubber latex.

Fluzone High-Dose Southern Hemisphere is standardized according to United States Public Health Service requirements and is formulated to contain HA of each of the following three influenza strains recommended for the 2025 influenza season: A/Victoria/4897/2022 IVR-238 (H1N1), A/Croatia/10136RV/2023 X-425A (H3N2), and B/Michigan/01/2021 (a B/Austria/1359417/2021-like virus, B Victoria lineage). The amounts of HA and other ingredients per dose of vaccine are listed in Table 2.

Table 2: Fluzone High-Dose Southern Hemisphere Ingredients

Ingredient	Quantity (per dose)
	Fluzone High-Dose Southern Hemisphere 0.5 mL Dose
Active Substance: Split influenza virus, inactivated strains*:	180 mcg HA total
A (H1N1)	60 mcg HA
A (H3N2)	60 mcg HA
B	60 mcg HA
Other:	
Sodium phosphate-buffered isotonic sodium chloride solution	QS [†] to appropriate volume
Formaldehyde	≤100 mcg
Octylphenol ethoxylate	≤250 mcg
Gelatin	None
Preservative	None

* per United States Public Health Service (USPHS) requirement
† Quantity Sufficient

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Specific levels of hemagglutination inhibition (HI) antibody titer post-vaccination with inactivated influenza virus vaccines have not been correlated with protection from influenza virus infection. In some human studies, antibody titers $\geq 1:40$ have been associated with protection from influenza illness in up to 50% of participants. (See references 2 and 3.)

Antibodies against one influenza virus type or subtype confer limited or no protection against another. Furthermore, antibodies to one antigenic variant of influenza virus might not protect against a new antigenic variant of the same type or subtype. Frequent development of antigenic variants through antigenic drift is the virologic basis for seasonal epidemics and the reason for the usual change of one or more new strains in each year's influenza vaccine.

13 NON-CLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Fluzone High-Dose Southern Hemisphere has not been evaluated for carcinogenic or mutagenic potential or for impairment of fertility.

14 CLINICAL STUDIES

Fluzone High-Dose Southern Hemisphere and Fluzone High-Dose are manufactured using the same process. Data in this section were obtained in studies with Fluzone High-Dose.

14.1 Immunogenicity of Fluzone High-Dose in Adults 65 Years of Age and Older

Study 1 was a multi-center, double-blind pre-licensure trial conducted in the US in which adults 65 years of age and older were randomized to receive either Fluzone High-Dose or Fluzone (2006–2007 formulation). The study compared the safety and immunogenicity of Fluzone High-Dose to those of Fluzone. For immunogenicity analyses, 2576 participants were randomized to Fluzone High-Dose and 1275 participants were randomized to Fluzone. Females accounted for 51.3% of participants in the Fluzone High-Dose group and 54.7% of participants in the Fluzone group. In both groups, the mean age was 72.9 years (ranged from 65 through 97 years in the Fluzone High-Dose group and 65 through 94 years in the Fluzone group); 35% of participants in the Fluzone High-Dose group and 36% of participants in the Fluzone group were 75 years of age or older. Most participants in the Fluzone High-Dose and Fluzone groups, respectively, were White (91.7% and 92.9%), followed by Hispanic (4.8% and 3.7%), and Black (2.7% and 2.7%).

The primary endpoints of the study were HI GMTs and seroconversion rates 28 days

after vaccination. Pre-specified statistical superiority criteria required that the lower limit (LL) of the 2- sided 95% CI of the GMT ratio (Fluzone High-Dose/Fluzone) be greater than 1.50 for at least two of the strains, and if one strain failed, non-inferiority of that strain must be demonstrated (LL>0.67), and that the lower limit of the 2-sided 95% CI of the seroconversion rate difference (Fluzone High-Dose minus Fluzone) be greater than 10% for at least two of the strains, and if one strain failed, non-inferiority of that strain must be demonstrated (LL>-10%). As shown in Table 3, statistically superior HI GMTs and seroconversion rates after vaccination with Fluzone High-Dose compared to Fluzone were demonstrated for influenza A subtypes, A (H1N1) and A (H3N2), but not for influenza type B. For strain B, non-inferiority of Fluzone High-Dose compared to Fluzone was demonstrated for both the HI GMTs and seroconversion rates.

Table 3: Post-Vaccination HI Antibody GMTs and Seroconversion Rates and Analyses of Superiority of Fluzone High-Dose Relative to Fluzone, Adults 65 Years of Age and Older (Study 1*)

Influenza Strain	GMT		GMT Ratio	Seroconversion % [†]		Difference	Met Both Pre-defined Superiority Criteria [‡]
	Fluzone High-Dose N [§] =2542-2544	Fluzone N [§] =1252	Fluzone High-Dose over Fluzone (95% CI)	Fluzone High-Dose N [§] =2529-2531	Fluzone N [§] =1248-1249	Fluzone High-Dose minus Fluzone (95% CI)	
A (H1N1)	115.8	67.3	1.7 (1.6; 1.8)	48.6	23.1	25.4 (22.4; 28.5)	Yes
A (H3N2)	608.9	332.5	1.8 (1.7; 2.0)	69.1	50.7	18.4 (15.1; 21.7)	Yes
B	69.1	52.3	1.3 (1.2; 1.4)	41.8	29.9	11.8 (8.6; 15.0)	No

* NCT00391053

[†] Seroconversion: Paired samples with pre-vaccination HI titer <1:10 and post-vaccination (day 28) titer ≥1:40 or a minimum 4-fold increase for participants with pre-vaccination titer ≥1:10

[‡] Predefined superiority criterion for seroconversion: the lower limit of the two-sided 95% CI of the difference of the seroconversion rates (Fluzone High-Dose minus Fluzone) is >10%. Predefined superiority criterion for the GMT ratio: the lower limit of the 95% CI of the GMT ratio (Fluzone High-Dose divided by Fluzone) is >1.5

[§] N is the number of vaccinated participants with available data for the immunologic endpoint listed

14.2 Efficacy of Fluzone High-Dose in Adults 65 Years of Age and Older

Study 2 was a multi-center, double-blind post-licensure efficacy trial conducted in the US and Canada in which adults 65 years of age and older were randomized (1:1) to receive either Fluzone High-Dose or Fluzone. The study was conducted over two influenza seasons (2011–2012 and 2012–2013); 53% of participants enrolled in the first year of the study were re-enrolled and re-randomized in the second year. The per-protocol analysis set for efficacy assessments included 15,892 Fluzone High-Dose recipients and 15,911 Fluzone recipients. The majority (67%) of participants in the per-protocol analysis set for efficacy had one or more high-risk chronic comorbid conditions.

In the per-protocol analysis set, females accounted for 57.2% of participants in the Fluzone High-Dose group and 56.1% of participants in the Fluzone group. In both groups, the median age was 72.2 years (range 65 through 100 years). Overall, most participants in the study were White (95%); approximately 4% of study participants were Black, and approximately 6% reported Hispanic ethnicity.

The primary endpoint of the study was the occurrence of laboratory-confirmed influenza (as determined by culture or polymerase chain reaction) caused by any influenza viral type/subtype in association with influenza-like illness (ILI), defined as the occurrence of at least one of the following respiratory symptoms: sore throat, cough, sputum production, wheezing, or difficulty breathing; concurrent with at least one of the following systemic signs or symptoms: temperature >99.0°F, chills, tiredness, headaches or myalgia. Participants were monitored for the occurrence of a respiratory illness by both active and passive surveillance, starting 2 weeks post-vaccination for approximately 7 months. After an episode of respiratory illness, nasopharyngeal swab samples were collected for analysis; attack rates and vaccine efficacy were calculated (see Table 4).

Table 4: Relative Efficacy Against Laboratory-Confirmed Influenza* Regardless of Similarity to the Vaccine Components, Associated with Influenza-Like Illness†, Adults 65 Years of Age and Older (Study 2‡)

	Fluzone High-Dose N[§]=15,892 n[¶] (%)	Fluzone N[§]=15,911 n[¶] (%)	Relative Efficacy % (95% CI)
Any type/subtype[#]	227 (1.43)	300 (1.89)	24.2 (9.7; 36.5) ^p
Influenza A	190 (1.20)	249 (1.56)	23.6 (7.4; 37.1)
A (H1N1)	8 (0.05)	9 (0.06)	11.0 (-159.9; 70.1)
A (H3N2)	171 (1.08)	222 (1.40)	22.9 (5.4; 37.2)
Influenza B^β	37 (0.23)	51 (0.32)	27.4 (-13.1; 53.8)

* Laboratory-confirmed: culture- or polymerase-chain-reaction-confirmed

† Occurrence of at least one of the following respiratory symptoms: sore throat, cough, sputum production, wheezing, or difficulty breathing; concurrent with at least one of the following systemic signs or symptoms: temperature >99.0°F, chills, tiredness, headaches or myalgia

‡ NCT01427309

§ N is the number of vaccinated participants in the per-protocol analysis set for efficacy assessments

¶ n is the number of participants with protocol-defined influenza-like illness with laboratory confirmation

Primary endpoint

p The pre-specified statistical superiority criterion for the primary endpoint (lower limit of the 2-sided 95% CI of the vaccine efficacy of Fluzone High-Dose relative to Fluzone > 9.1%) was met.

β In the first year of the study the influenza B component of the vaccine and the majority of influenza B cases were of the Victoria lineage; in the second year the influenza B component of the vaccine and the majority of influenza B cases were of the Yamagata lineage

A secondary endpoint of the study was the occurrence of culture-confirmed influenza caused by viral types/subtypes antigenically similar to those contained in the respective

annual vaccine formulations in association with a modified CDC-defined ILI, defined as the occurrence of a temperature >99.0°F (>37.2°C) with cough or sore throat. The efficacy of Fluzone High-Dose relative to Fluzone for this endpoint was 51.1% (95% CI: 16.8; 72.0).

15 REFERENCES

- 1 Lasky T, Terracciano GJ, Magder L, et al. The Guillain-Barré syndrome and the 1992–1993 and 1993–1994 influenza vaccines. *N Engl J Med* 1998;339:1797–802.
- 2 Hannoun C, Megas F, Piercy J. Immunogenicity and protective efficacy of influenza vaccination. *Virus Res* 2004;103:133–138.
- 3 Hobson D, Curry RL, Beare AS, Ward-Gardner A. The role of serum haemagglutination-inhibiting antibody in protection against challenge infection with influenza A2 and B viruses. *J Hyg Camb* 1972;70:767–777.

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

Single-dose, prefilled syringe, without needle, 0.5 mL (NDC 49281-341-88) (not made with natural rubber latex). Supplied as package of 10 (NDC 49281-341-50).

16.2 Storage and Handling

Store Fluzone High-Dose Southern Hemisphere refrigerated at 2° to 8°C (35° to 46°F). DO NOT FREEZE. Discard if vaccine has been frozen.

Do not use after the expiration date shown on the label.

17 PATIENT COUNSELING INFORMATION

See FDA-approved patient labeling (Patient Information).

- Inform the patient or caregiver that Fluzone High-Dose Southern Hemisphere contains killed viruses and cannot cause influenza.
- Fluzone High-Dose Southern Hemisphere stimulates the immune system to produce antibodies that help protect against influenza.
- Instruct that annual influenza vaccination is recommended.
- Instruct vaccine recipients and caregivers to report adverse reactions to their healthcare provider and/or to Vaccine Adverse Event Reporting System (VAERS).
- Give the Vaccine Information Statements to recipients or caregivers, which are required by the National Childhood Vaccine Injury Act of 1986 prior to each immunization. These materials are available free of charge at the Centers for Disease Control and Prevention (CDC) website (www.cdc.gov/vaccines).

Fluzone is a registered trademark of Sanofi Pasteur Inc.

Manufactured by:

Sanofi Pasteur Inc.

Swiftwater, PA 18370 USA

Patient Information Sheet

Fluzone® High-Dose Southern Hemisphere Influenza Vaccine

Please read this information sheet before getting Fluzone High-Dose Southern Hemisphere vaccine. This summary is not intended to take the place of talking with your healthcare provider. If you have questions or would like more information, please talk with your healthcare provider.

What is Fluzone High-Dose Southern Hemisphere vaccine?

Fluzone High-Dose Southern Hemisphere is a vaccine that helps protect against influenza illness (flu).

Fluzone High-Dose Southern Hemisphere vaccine is for people 65 years of age and older.

Vaccination with Fluzone High-Dose Southern Hemisphere vaccine may not protect all people who receive the vaccine.

Who should not get Fluzone High-Dose Southern Hemisphere vaccine?

You should not get Fluzone High-Dose Southern Hemisphere vaccine if you:

- ever had a severe allergic reaction to eggs or egg products.
- ever had a severe allergic reaction after getting any influenza vaccine.

Tell your healthcare provider if you have or have had:

- Guillain-Barré syndrome (severe muscle weakness) after getting an influenza vaccine.
- problems with your immune system as the immune response may be diminished.

How is Fluzone High-Dose Southern Hemisphere vaccine given?

Fluzone High-Dose Southern Hemisphere vaccine is given as an injection into the muscle.

What are the possible side effects of Fluzone High-Dose Southern Hemisphere vaccine?

The most common side effects of Fluzone High-Dose Southern Hemisphere vaccine are:

- pain, redness, and swelling where you got the injection
- muscle ache
- tiredness
- headache

These are not all of the possible side effects of Fluzone High-Dose Southern Hemisphere vaccine. Ask your healthcare provider about other side effects.

Call your healthcare provider for advice about any side effects that concern you. You may report side effects to the Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967 or <https://vaers.hhs.gov>.

Why should I get Fluzone High-Dose Southern Hemisphere vaccine instead of Fluzone vaccine?

An efficacy study in adults 65 years of age and older has demonstrated that Fluzone High-Dose vaccine offers better protection against influenza than Fluzone vaccine. The vaccines used in this study were made in the same way as Fluzone High-Dose Southern

Hemisphere vaccine.

What are the ingredients in Fluzone High-Dose Southern Hemisphere vaccine?

Fluzone High-Dose Southern Hemisphere vaccine contains 3 killed influenza virus strains. There is no live influenza virus in Fluzone High-Dose Southern Hemisphere. Fluzone High-Dose Southern Hemisphere cannot cause influenza.

Inactive ingredients include formaldehyde and octylphenol ethoxylate.

Manufactured by: Sanofi Pasteur Inc.
Swiftwater, PA 18370 USA

PRINCIPAL DISPLAY PANEL - 0.5 mL Syringe Label

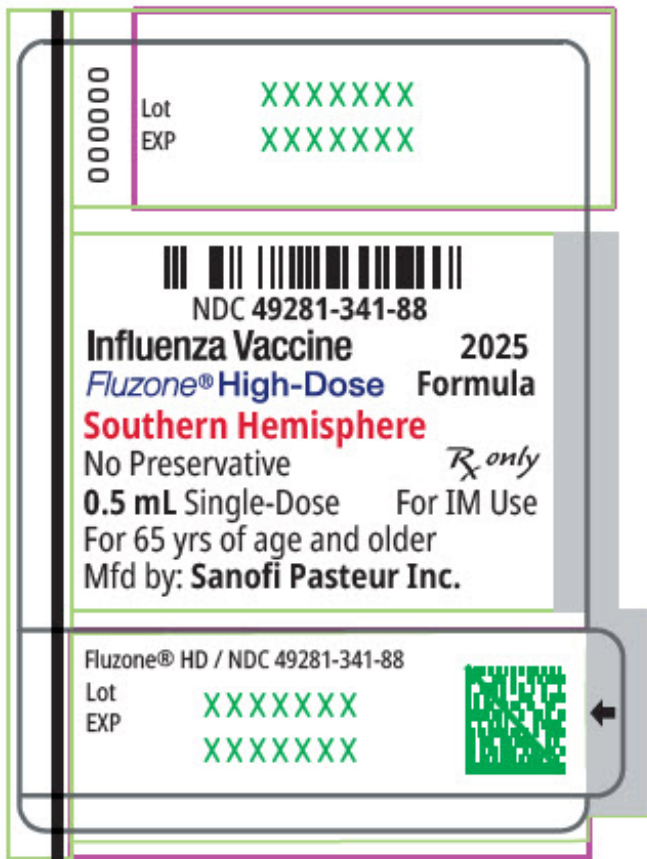
NDC 49281-341-88

Influenza Vaccine
Fluzone[®] High-Dose
Southern Hemisphere
No Preservative
0.5 mL Single-Dose
For 65 yrs of age and older
Mfd by: Sanofi Pasteur Inc.

2025
Formula

Rx only

For IM Use



PRINCIPAL DISPLAY PANEL - 0.5 mL Syringe Carton

NDC 49281-341-50

2025

Formula

Influenza Vaccine
Fluzone® High-Dose
Southern Hemisphere

Rx only

FOR ADULTS

65+

For Intramuscular Use
10 single-dose prefilled syringes 0.5 mL each

sanofi

NDC 49281-341-50

Influenza Vaccine
Fluzone® High-Dose 2025 Formula
Southern Hemisphere *Rx only*
For Intramuscular Use
10 single-dose prefilled syringes 0.5 mL each

FOR ADULTS
65+

DO NOT FREEZE. Store at 2° to 8°C (35° to 46°F).
SHAKE WELL.

FOR INTRAMUSCULAR USE.

See full prescribing information for additional details.
Prepared from influenza viruses propagated in embryonated chicken eggs and inactivated with formaldehyde. A nonionic surfactant (Triton® X-100*) is added during manufacture. This vaccine has been standardized according to USPHS requirements for the 2025 influenza season and is formulated to contain 180 micrograms (mcg) hemagglutinin (HA) per 0.5 mL dose, in the recommended ratio of 60 mcg HA each, representative of the following prototype strains: A/Victoria/4897/2022 IVR-238 (H1N1), A/Croatia/10136RV/2023 X-425A (H3N2), and B/Michigan/01/2021 (a B/Austria/1359417/2021-like virus, B Victoria lineage).

Contains no preservative.

Not made with natural rubber latex.

*Triton® X-100 – Registered trademark of Union Carbide, Co., USA.

US Govt License #1725
Manufactured by:
Sanofi Pasteur Inc.
Swiftwater, PA 18370 USA



000 000



372

Z05MPE1R0@E00 3NELD

XX XX XXXX XXX XXX X

N/S



XX XX XXX X
XX XX XXX X

4/8

7/1

NDC 49281-341-50

2025
Formula

Influenza Vaccine
Fluzone® High-Dose
Southern Hemisphere

Rx only

FOR ADULTS
65+

For Intramuscular Use
10 single-dose prefilled syringes 0.5 mL each



sanofi

FLUZONE HD TIV SH 2025

influenza a virus a/victoria/4897/2022 ivr-238 (h1n1) antigen (formaldehyde inactivated), influenza a virus a/croatia/10136rv/2023 x-425a (h3n2) antigen (formaldehyde inactivated), and influenza b virus b/michigan/01/2021 antigen (formaldehyde inactivated) injection, suspension

Product Information

Product Type	VACCINE	Item Code (Source)	NDC:49281-341
Route of Administration	INTRAMUSCULAR		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
INFLUENZA A VIRUS A/VICTORIA/4897/2022 IVR-238 (H1N1) ANTIGEN (FORMALDEHYDE INACTIVATED) (UNII: AU5C98U4BB) (INFLUENZA A VIRUS A/VICTORIA/4897/2022 IVR-238 (H1N1) HEMAGGLUTININ ANTIGEN (FORMALDEHYDE INACTIVATED) - UNII:C46XJT9FQ9)	INFLUENZA A VIRUS A/VICTORIA/4897/2022 IVR-238 (H1N1) HEMAGGLUTININ ANTIGEN (FORMALDEHYDE INACTIVATED)	60 ug in 0.5 mL
INFLUENZA A VIRUS A/CROATIA/10136RV/2023 X-425A (H3N2) ANTIGEN (FORMALDEHYDE INACTIVATED) (UNII: HQW9FZS4YK) (INFLUENZA A VIRUS A/CROATIA/10136RV/2023 X-425A (H3N2) HEMAGGLUTININ ANTIGEN (FORMALDEHYDE INACTIVATED) - UNII:SD82XNG5M6)	INFLUENZA A VIRUS A/CROATIA/10136RV/2023 X-425A (H3N2) HEMAGGLUTININ ANTIGEN (FORMALDEHYDE INACTIVATED)	60 ug in 0.5 mL
INFLUENZA B VIRUS B/MICHIGAN/01/2021 ANTIGEN (FORMALDEHYDE INACTIVATED) (UNII: FF9YP4D23C) (INFLUENZA B VIRUS B/MICHIGAN/01/2021 HEMAGGLUTININ ANTIGEN (FORMALDEHYDE INACTIVATED) - UNII:CQV855H5FG)	INFLUENZA B VIRUS B/MICHIGAN/01/2021 ANTIGEN (FORMALDEHYDE INACTIVATED)	60 ug in 0.5 mL

Inactive Ingredients

Ingredient Name	Strength
SODIUM PHOSPHATE, DIBASIC, ANHYDROUS (UNII: 22ADO53M6F)	
SODIUM PHOSPHATE, MONOBASIC, ANHYDROUS (UNII: KH7I04HPUU)	
WATER (UNII: 059QF0KO0R)	
OCTOXYNOL-9 (UNII: 7JPC6Y25QS)	
FORMALDEHYDE (UNII: 1HG84L3525)	
SODIUM CHLORIDE (UNII: 451W47IQ8X)	

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:49281-341-50	10 in 1 PACKAGE		
1	NDC:49281-341-88	0.5 mL in 1 SYRINGE, GLASS; Type 3: Prefilled Biologic Delivery Device/System (syringe, patch, etc.)		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
BLA	BLA103914	03/06/2025	12/31/2025

Labeler - Sanofi Pasteur Inc. (086723285)

Registrant - Sanofi Pasteur Inc. (086723285)

Establishment

Name	Address	ID/FEI	Business Operations
Sanofi Pasteur Inc.		086723285	MANUFACTURE(49281-341) , PACK(49281-341) , LABEL(49281-341)

Revised: 3/2025

Sanofi Pasteur Inc.