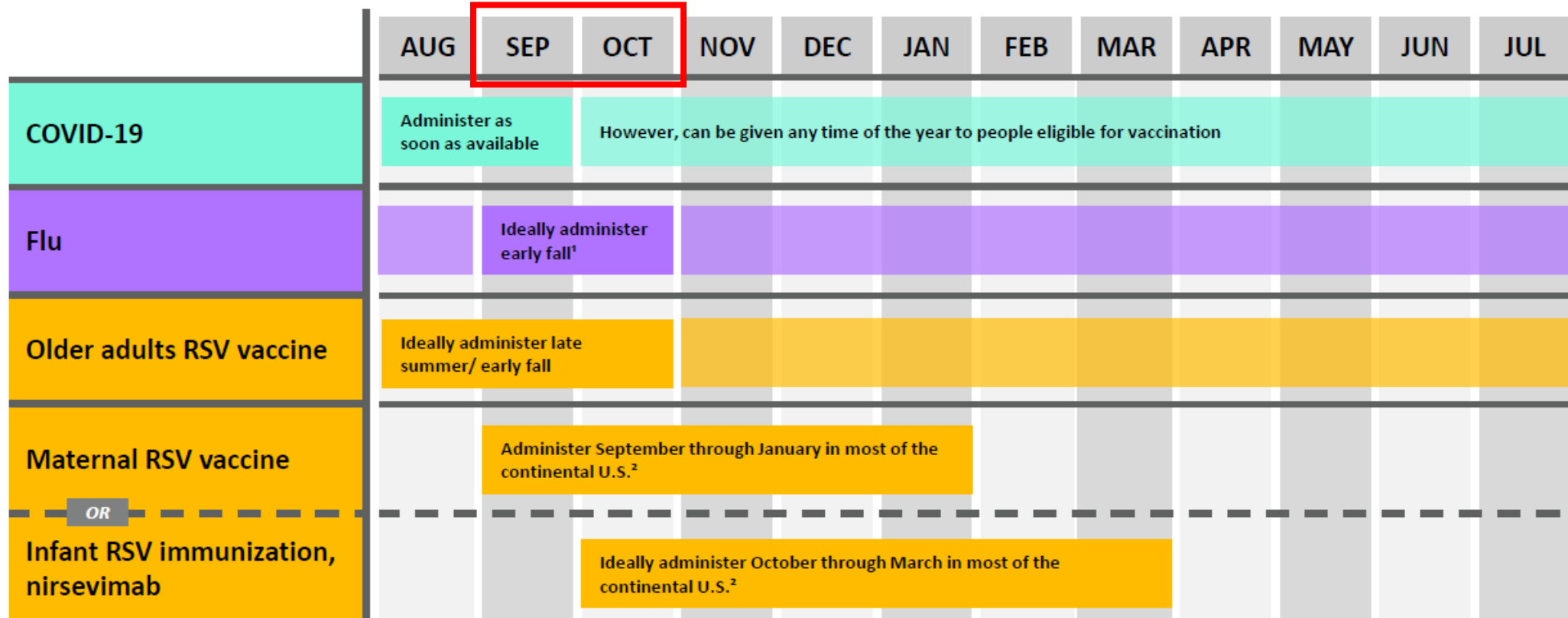


Clinical Update

Priyanka Saxena, PHMO, CDPH



Timing and Administration of COVID-19, Influenza and RSV Immunizations

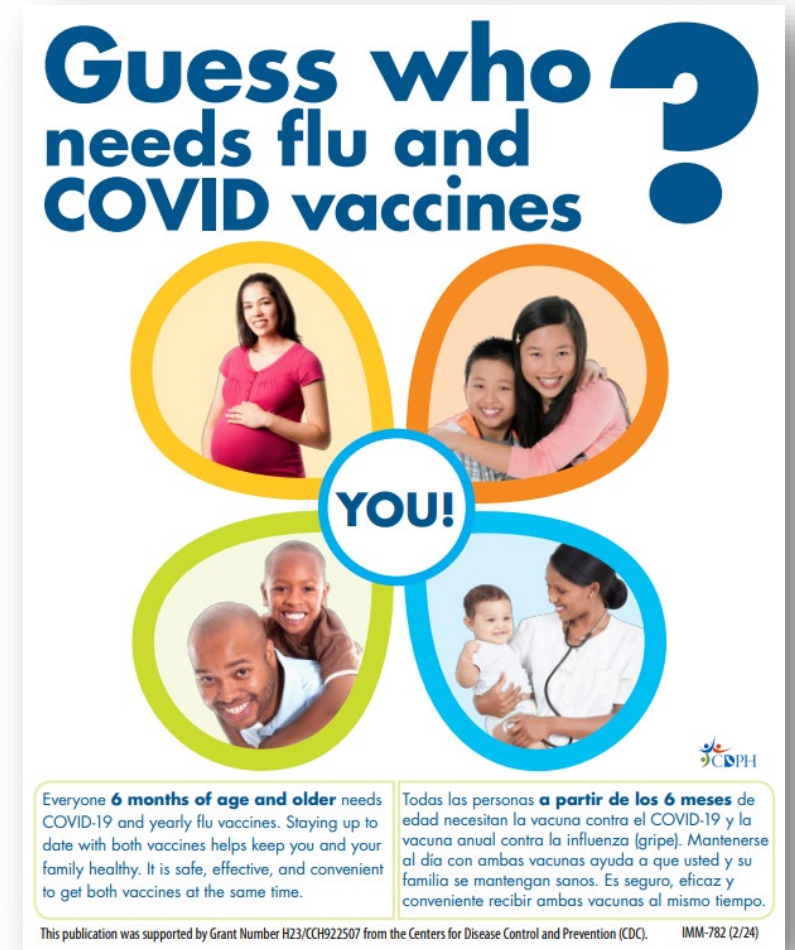


¹ Children who need 2 doses should receive their first dose as soon as possible (including during July and August). One dose of flu vaccine can be considered for pregnant people in their third trimester during July and August.

² In jurisdictions with RSV seasonality that differs from most of the continental United States, including Alaska, southern Florida, Guam, Hawaii, Puerto Rico, U.S.-affiliated Pacific Islands, and U.S. Virgin Islands, providers should follow state, local, or territorial guidance. However, nirsevimab may be administered outside of routine seasonal administration (ie., October through March) based on local RSV activity and other special circumstances.

Influenza Vaccine Recommendations

- **Everyone ≥ 6 months should get updated COVID-19 & flu vaccines this Fall.**
- ACIP 2024-2025 Influenza Season Recommendation Updates:
 - Given no detection since March 2020, 2024–25 U.S. influenza vaccines will not include a B/Yamagata component. All U.S. influenza vaccines will be **trivalent** containing A(H1N1), A(H3N2), and B(Victoria) influenza strains.
 - Solid organ transplant recipients 18-64y on immunosuppressive medications may receive either high-dose or adjuvanted flu vaccines as acceptable options (without a preference over other inactivated or recombinant influenza vaccines).



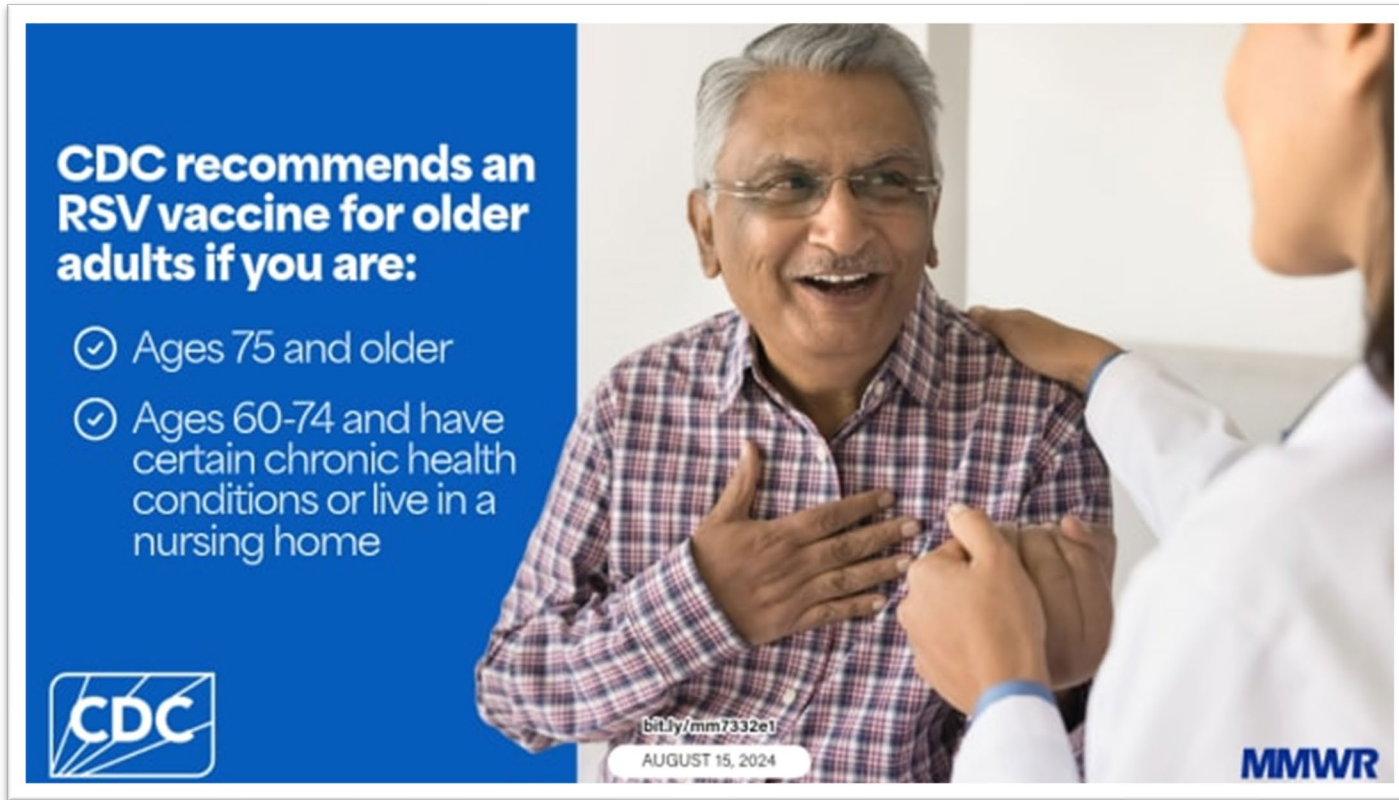
Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov); Guess Who Needs Flu and COVID Vaccines (IMM-782) | CDPH

Influenza Vaccine Recommendations

- **Children 6 months through 8 years** who did not receive ≥ 2 doses of flu vaccine before July 1, 2024: 2 doses of flu vaccine, ≥ 4 weeks apart
- **Solid organ transplant recipients 18-64 years** on immunosuppressants:
 - Any age-appropriate vaccine, now including all enhanced options
- **Age 65 years and older:**
 - Preferentially recommended to receive any enhanced vaccine
- **Enhanced vaccine options include**

Type	Description	Brand Name
Adjuvanted	Contains MF59 adjuvant	FLUAD Adjuvanted
High-dose	Contains 4x hemagglutinin vs standard dose vaccines	Fluzone High-Dose
Recombinant	Contains 3x hemagglutinin vs standard dose vaccines	FluBlok

RSV Vaccine: Older Adults (60+)



CDC recommends an RSV vaccine for older adults if you are:

- ✔ Ages 75 and older
- ✔ Ages 60-74 and have certain chronic health conditions or live in a nursing home

CDC

bit.ly/mm7332e1

AUGUST 15, 2024

MMWR

Persons who have already received RSV vaccination are **NOT** recommended to receive another dose.

Thus far, RSV vaccines appear to provide some protection for at least two RSV seasons.

May be given year-round but consider giving in late summer and early fall to maximize benefits of RSV vaccination.

CDC: RSV Vaccination for Adults 60 Years of Age and Over
[ACIP Recommendations: RSV Vaccine in Adults Aged ≥60 Years](#)

CDC recommends the 2024-25 COVID-19 vaccine for everyone 6 months and older

An updated vaccine protects against:

- COVID-19 variants spreading now
- Severe illness, hospitalization, and death



bit.ly/mm7337e2

SEPTEMBER 10, 2024

MMWR

Use of COVID-19 Vaccines for Persons Aged ≥ 6 Months: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–2025. MMWR

COVID-19 Vaccines: 2024-2025 Updates

- Updated 2024-2025 vaccines authorized/approved
 - mRNA COVID-19 vaccines (Moderna and Pfizer) contain KP.2 strain.
 - Novavax vaccine contains the JN.1 strain.
 - Current main variant is KP.3.1.1, from the JN.1 lineage and closely related to selected strains.
 - Receiving an updated 2024-2025 COVID-19 vaccine this fall provides better protection against the current strains.
- All 2023-2024 COVID-19 vaccines are no longer authorized and should not be administered.
 - If a deauthorized product (e.g., a 2023-2024 COVID-19 vaccine) is administered, report the error to [VERP](#). For more info: [VAERS/VERP/MedWatch Jobaid](#).
 - A 2024-2025 COVID-19 vaccine should be given at least 2 months since the last dose of any COVID-19 vaccine. See [CDC guidance for administration errors](#).

FDA Press Release 8/22/24; CDC Variant Tracker, FDA Press Release 8/30/2024

COVID-19 Vaccines: 2024-2025 Updates

Overall, CDC recommendations are similar to guidance from 2023-2024, **with the exception that an additional (second) dose for 65+ is not currently recommended.** ACIP will monitor available data and update recommendations as needed.

FDA Emergency Use Authorization	FDA approved/licensed
Pfizer COVID-19 Vaccine (2024-2025 Formula) 6 months-11 years EUA Fact Sheet for Recipients/Caregivers	Comirnaty, 12 years and older VIS (not yet updated by CDC)
Moderna COVID-19 Vaccine (2024-2025 Formula) 6 months-11 years EUA Fact Sheet for Recipients/Caregivers	Spikevax, 12 years and older VIS (not yet updated by CDC)
Novavax COVID-19 Vaccine (2024-2025 Formula) 12 years and older EUA Fact Sheet for Recipients/Caregivers	


COVID-19 Vaccine Timing 2024 – 2025

COVID-19 Vaccine Timing 2024-25 – Routine Schedule

Age*	Vaccine	If unvaccinated:	If had any prior doses, give 2024-25 doses:
6 months–4 years†	Pfizer–Infant/Toddler	1st Dose → 3-8 weeks** → 2nd Dose → ≥8 weeks → 3rd Dose	If 1 prior dose, then: 3-8** weeks 1 ≥8 weeks 2 If ≥2 prior doses, then: ≥8 weeks 1
	Moderna–Pediatric*	1st Dose → 4-8 weeks** → 2nd Dose	If 1 prior dose, then: 4-8 weeks 1 If ≥2 prior doses then: ≥8 weeks 1
5–11 years	Moderna–Pediatric*	1 Dose	If 1 or more prior doses (of any of the brands), then*: ≥2 months 2024-25 Formulation: Moderna/Pfizer
	Pfizer–Pediatric	1 Dose	
12+ years	Pfizer–Adol/Adult (Comirnaty)	1 Dose	If 1 or more prior doses (of any of the brands), then*: ≥2 months 2024-25 Formulation: Moderna/Pfizer/Novavax
	Moderna–Adol/Adult (Spikevax)	1 Dose	
	Novavax	1st Dose → 3-8 weeks** → 2nd Dose	

* See [CDC recommendations](#) for children transitioning from a younger to older age group
 † Children 6 months – 4 years should receive the same brand of the updated vaccine as the prior doses they received.
 ** An 8-week interval may be preferable for some people, especially for males 12-39 years.
 ‡ All Moderna doses 6 months – 11 years are 0.25 mL (25 mcg).
 ^ Janssen (J & J) vaccine has been deauthorized. Follow schedule for 12+ years for any prior doses.

View [Interim Clinical Considerations for Use of COVID-19 Vaccines](#) for details. Schedule is subject to change.



COVID-19 Vaccine Timing 2024-25 if Moderately/Severely Immunocompromised

Age	Vaccine	If unvaccinated:	If had any prior doses give 2024-25 doses:
6 months–4 years	Pfizer Infant/Toddler	1st Dose → 3 weeks → 2nd Dose → ≥8 weeks → 3rd Dose → ≥2 months → Optional Dose*	1 prior dose: 3 w 1 ≥8 w 2 ≥2 prior doses: ≥8 w 1 ≥2 m Optional Dose*
	Moderna–Pediatric	1st Dose → 4 weeks → 2nd Dose → ≥4 weeks → 3rd Dose → ≥2 months → Optional Dose*	1 prior dose: 4 w 1 ≥4 w 2 2 prior doses: ≥4 w 1 ≥2 m Optional Dose*
5–11 years	Moderna–Pediatric	1st Dose → 4 weeks → 2nd Dose → ≥4 weeks → 3rd Dose → ≥2 months → Optional Dose* Moderna/Pfizer	≥3 prior doses**: (for ages 5+ yrs, Pfizer dose is also OK) ≥8 w 1 ≥2 m Optional Dose*
	Pfizer–Pediatric	1st Dose → 3 weeks → 2nd Dose → ≥4 weeks → 3rd Dose → ≥2 months → Optional Dose* Moderna/Pfizer	1 prior dose: 3 w 1 ≥4 w 2 2 prior doses: ≥4 w 1 ≥3 prior doses**: ≥8 w 1 ≥2 m Optional Dose* Moderna/Pfizer
12+ years	Pfizer–Adol/Adult (Comirnaty)	1st Dose → 3 weeks → 2nd Dose → ≥4 weeks → 3rd Dose → ≥2 months → Optional Dose* Moderna/Pfizer/Novavax	1 prior dose: 3 w 1 ≥4 w 2 2 prior doses: ≥4 w 1 ≥3 prior doses**: ≥8 w 1 ≥2 m Optional Dose* Moderna/Pfizer/Novavax (12+ only)
	Moderna–Adol/Adult (Spikevax)	1st Dose → 4 weeks → 2nd Dose → ≥4 weeks → 3rd Dose → ≥2 months → Optional Dose* Moderna/Pfizer/Novavax	1 prior dose: 4 w 1 ≥4 w 2 2 prior doses: ≥4 w 1 ≥3 prior doses**: ≥8 w 1 ≥2 m Optional Dose* Moderna/Pfizer/Novavax (12+ only)
	Novavax	1st Dose → 3 weeks → 2nd Dose → ≥2 months → Optional Dose* Moderna/Pfizer/Novavax	≥1 prior doses**: ≥2 m 1 ≥2 m Optional Dose* Moderna/Pfizer/Novavax (12+ only)

* An optional dose may be given ≥2 months after the last dose. Further doses may be given at the healthcare provider’s discretion. See [Table 2](#) for vial and dosage.
 ** Ages 5-11 years may be given Moderna or Pfizer after ≥3 prior doses. Ages 12+ years may be given Moderna, Pfizer, or Novavax.

California Department of Public Health, Immunization Branch IMM-1396 (8/30/24) Page 2 of 2

Updated COVID-19 Vaccine Timing Guide

COVID-19 Vaccine Product Guide 2024 – 2025

COVID-19 Vaccine Product Guide

Check vaccine labels and FDA materials before use to avoid mix-ups.
 Package inserts and EUA fact sheets supersede info on vials and carton.

	Pfizer			
	Infant/Toddler 6 months–4 years	Pediatric 5–11 years	Comirnaty 12+ years	Comirnaty 12+ years
			Single-Dose Vial 2024-25 Formula image not available	
	2024-25 Formula	2024-25 Formula		2024-25 Formula
Packaging	Yellow Cap	Blue Cap		Pre-Filled Syringe
Doses Per Vial	3 doses	1 dose	1 dose	1 dose/syringe
Carton Size	30 doses	10 doses	10 doses	10 doses
NDC-Unit of Sale (carton)	59267-4426-02	59267-4438-02	00069-2403-10	00069-2432-10
NDC-Unit of Use (vial/syringe)	59267-4426-01	59267-4438-01	00069-2403-01	00069-2432-01
CVX Code	308	310	309	309
CPT Code	91318	91319	91320	91320
Program Availability	VFC	VFC	Not available	VFC
Min. Standard Order*	30 doses	10 doses	N/A	10 doses
Storage Limits Before Puncture: Label vaccine with expiration and use-by dates.				
Shipping	Ships from manufacturer with dry ice between -90°C and -60°C (-130°F to -76°F)		2° to 8°C (36°F to 46°F)	
ULT	Until expiration date at -90°C to -60°C (-130°F to -76°F)			
Thermal Shipper				
Freezer				
Refrigerator	Up to 10 weeks at 2°C to 8°C (36°F to 46°F). Do not refreeze. Write the use-by date on carton—not to exceed expiration.		Until expiration at 2°C to 8°C	
Expiration Date	Check the date on the product/carton, or for thawed products refer to the written use-by date.			Check label.
Administration				
Diluent (supplied)	1.1 mL per vial	Do not dilute	Do not dilute	N/A
Dose Volume & Dose	0.3 mL 3 mcg dose	0.3 mL 10 mcg dose	0.3 mL 30 mcg dose	0.3 mL 30 mcg dose
Refrigerator Thaw Time	Carton/Vial: Up to 2 hours at 2° to 8°C (36°F to 46°F) (Do not refreeze)			N/A
Room Temp Thaw Time	Vial: 30 minutes at up to 25°C (77°F) (Do not refreeze)			N/A
Total Time at Room Temp	Up to 12 hours (including thaw time) at 8°C to 25°C (46°F to 77°F)			
Storage Limits After Puncture (Multi-dose vials): Record puncture and use-by time on vial label.				
Use-By Limit (Discard Time After 1st Puncture)	Discard 12 hours after dilution. Keep at 2°C to 25°C (35°F to 77°F)	N/A	N/A	Use immediately after removing cap, within 4 hours.

* Orders for privately purchased vaccines may have different order minimums.

California Department of Public Health, Immunization Branch IMM-1399 (9/9/24) Page 1 of 3

COVID-19 Vaccine Product Guide

	Moderna		Novavax
	Pediatric 6 months–11 years	Spikevax 12+ years	Adol/Adult 12+ years
			2024-25 Formula image not available
	2024-25 Product		
Packaging	Pre-Filled Syringe	Pre-Filled Syringe	Pre-Filled Syringe
Doses Per Vial	1 dose/syringe	1 dose/syringe	1 dose/syringe
Carton Size	10 doses	10 doses	10 doses
NDC-Unit of Sale (carton)	80777-0291-80, Blister-sealed: 80777-0291-81	80777-0110-96, Blister-sealed: 80777-0110-93	80631-0107-10
NDC-Unit of Use (vial/syringe)	80777-0291-09	80777-0110-01	80631-0107-01
CVX Code	311	312	313
CPT Code	91321	91322	91304
Program Availability	VFC	VFC	VFC
Min. Standard Order*	10 doses	10 doses	10 doses
Storage Limits Before Puncture: Label vaccine with expiration and use-by dates.			
Shipping	Ships frozen between -50°C and -15°C (-58°F and 5°F)		2° to 8°C (36° to 46°F)
ULT			
Thermal Shipper			
Freezer	Until expiration at -50°C to -15°C (-58°F to 5°F)		
Refrigerator	Up to 60 days (not to exceed expiration date) at 2–8°C (36–46°F)		Until expiration at 2–8°C (36–46°F)
Expiration Date	Check Moderna product website or QR code.		Check product website.
Administration			
Diluent	N/A		N/A
Dose Volume & Dose	0.25 mL 25 mcg	0.5 mL 50 mcg	0.5 mL 50 mcg
Refrigerator Thaw Time at 2°C to 8°C (36°F to 46°F) (Do not refreeze)	Syringe: 1 hour Carton: 2.5 hours		N/A
Room Temp Thaw Time at 15° to 25°C (59° to 77°F) (Do not refreeze)	Syringe: 45 minutes, Carton: 2 hours and 15 minutes		N/A
Total Room Temp Time	Store up to 12 hours at 8°C to 25°C (46°F to 77°F)		N/A
Storage Limits After Puncture			
Use-By Limit	N/A. Discard after single use.		N/A. Discard after single use.

* Orders for privately purchased vaccines may have different order minimums.

California Department of Public Health, Immunization Branch IMM-1399 (9/9/24) Page 2 of 3

COVID-19 Vaccine Product Guide

Do Not Use Deauthorized Products:

Use only COVID-19 vaccine products updated for 2024-25.

Pfizer		
Infant/Toddler 6 months–4 years	Pediatric 5–11 years	Adol/Adult (Comirnaty) 12+ years
2021 Monovalent	2021 Monovalent	2021 Monovalent
		Multi-dose
		Single
		2023-24 single-dose vial
		2023-24 syringe

Moderna				
Infant/Toddler 6 months–5 years	6 months+	Pediatric 6–11 years	Pediatric 6 mos–11 yrs	Adol/Adult (Spikevax) 12+ years
2021 Monovalent	2021 Monovalent	2021 Monovalent	2021 Monovalent	2021 Monovalent
				2023-24 single-dose vial
				2023-24 single-dose vial
				2023-24 syringe

Janssen (J&J)	Novavax
Adult 18+ years	Primary 12+ yrs Booster 18+
2021 Monovalent	2022 Monovalent
	2023-24 multi-dose vial

California Department of Public Health, Immunization Branch IMM-1399 (9/9/24) Page 3 of 3

Co-Administration of Flu, COVID-19, & RSV Vaccines

- **May offer all recommended respiratory virus vaccines during one visit.**
- Patients should be aware they **may experience more side effects**, like fever and fatigue; **however, these side effects are generally mild or moderate and only last a day or two.**
- For **patients at high risk** of becoming seriously ill from one of these diseases, the benefits of timely protection from coadministration likely outweigh the possible risks of increased side effects.
- If the provider is confident there will be additional opportunities to vaccinate, and the patient prefers to receive these vaccines during different visits, there is **no minimum wait period between vaccines.**
- **The most important thing is that patients receive all their recommended vaccines in a timely way** to protect against these major respiratory diseases this fall and winter virus season.

Vaccines: A core prevention strategy

COVID-19 and Flu 2024-25 Vaccines

Everyone ages 6 months and older



RSV Immunization to Protect Babies

Pregnant people during week 32–36 of pregnancy starting Sept 1 through RSV season (vaccine)

or

Babies entering or born during the RSV season (monoclonal antibodies)



RSV vaccine for Older Adults who haven't gotten an RSV vaccine before

People ages 60-74 at high risk of severe RSV

and

Everyone ages 75 and older



You may get flu, COVID-19, and RSV vaccines at the same visit

Updated resource: Respiratory Virus Season Talking Points

- Found on [EZIZ Flu and Respiratory Disease Page](#) Under "Toolkits and Campaigns"
- Tool to help draft communications for vaccinating against flu, COVID-19, and RSV
- Messaging is around "respiratory virus season" in fall and winter, bundling all three

Toolkits and Campaigns

- [2024-2025 Flu and Respiratory Immunization Talking Points](#) - UPDATED!
- [Fight Flu & COVID-19](#)

2024-25 RESPIRATORY DISEASES IMMUNIZATION TALKING POINTS

FOR DRAFTING SOCIAL MEDIA MESSAGES, PRESS RELEASES, ARTICLES AND OTHER COMMUNICATIONS:

Respiratory infections like flu, COVID-19, and RSV are common during the fall and winter; serious complications can be prevented by getting immunized when eligible.

- Updated [flu](#) and [COVID-19](#) vaccines are recommended for everyone 6 months and older when available. Respiratory Syncytial Virus (RSV) immunizations are recommended for eligible pregnant people, older adults, infants, and toddlers. These immunizations decrease your chances of getting very sick. Talk to your health care provider today!
- Getting immunized against flu, COVID-19, and RSV means fewer sick days and more time with your loved ones. Get your vaccines today!
- No vaccine is 100%, but even if you catch these viruses while immunized, your symptoms may be less severe, and you are less likely to be hospitalized.
- Getting immunized against these respiratory diseases has been proven safe and effective in preventing serious illness and death in children and adults.
- Flu, COVID-19, and RSV immunizations are the best protection against related hospitalization and death.

We are stronger when we are all protected against respiratory diseases. Talk to your health care provider about getting immunized against flu, COVID-19, and RSV.

- Reduce the chances of spreading respiratory illnesses to those you love. Ask your health care provider today if you and your loved ones are up to date on immunizations.
- Do your part to protect yourselves and your loved ones from serious illness by getting immunized this respiratory season.
- Getting immunized is one way we can look out for one another and keep each other healthy.
- Immunizations can help lessen the burden on our healthcare system during respiratory virus season. Let's keep each other healthy and out of the hospital!

**More "Up for activities."
Less "Under the weather."**



**RISK LESS.
DO MORE.**
Get this season's vaccines

Risk Less. Do More. Campaign

- A U.S. Dept. of Health and Human Services (HHS) campaign to increase awareness of, confidence in, and uptake of flu, COVID-19, and RSV immunizations in at-risk populations including
 - Adults ages 60 and older
 - Adults living in long-term care facilities (LTCF)
- Fact sheets, social media graphics/videos, posters available on [HHS website](#)



Living in long-term care? RSV can be an unwelcome visitor.

**RISK LESS.
DO MORE.**
Get this season's vaccines