

COVID-19 Vaccine

STORAGE AND HANDLING
21 SEPTEMBER 2023

Topics Covered

- ❖ Vaccine Storage
- ❖ Temperature Monitoring
- ❖ Temperature Excursions
- ❖ Available Presentations of COVID-19 Vaccine
 - ❖ Novavax
 - ❖ Moderna
 - ❖ Pfizer
- ❖ Ultra Cold Considerations
- ❖ Clearing Out Unauthorized COVID-19 Vaccine
- ❖ Resources

Vaccine Storage

- Position vaccines and diluents 2 to 3 inches from the sides of the unit
- Store each type of vaccine or diluent in its original packaging and in a separate container
- Label shelves and containers to clearly identify where each type of vaccine and diluent is stored
- Avoid placing or storing any items other than vaccines, diluents, and water bottles inside storage units
- Arrange vaccines and diluents in rows and allow space between them to promote air circulation
- Place vaccines and diluents with the earliest expiration dates in front of those with later expiration dates
- Ensure all inventories from CVP, AVP and Private Purchase vaccines are separated and Clearly Marked

Temperature Monitoring

- All units should have a Temperature Monitoring Device
 - Ensure digital data logger (DDL) is working properly and the storage isn't full
 - DDL should be recalibrated every 2-3 years
- ALWAYS keep backup paper temperature logs
- When submitting temperature logs make sure to review:
 - The correct month is being uploaded
 - The correct units is being uploaded
 - All days of the month are included
 - If there are excursions on the temperature log it needs to be noted and the excursion process followed

Temperature Monitoring

- COVID-19 vaccine must be kept within certain temperature ranges. Acceptable temperatures are displayed below for each type of storage unit:

	Acceptable range (C)	Acceptable range (F)
Ultracold freezer	-90° to -60° C *	-130° to -76° F
Standard freezer	-50° to -15° C	-58° to 5° F
Refrigerator	2° to 8° C	36° to 46° F

Addressing Temperature Excursions

- [Vaccine Temperature Excursion Guide \(wa.gov\)](https://www.wa.gov/health/vaccine-temperature-excursion-guide)

Notify

- Alert primary or backup vaccine coordinator immediately if you notice an excursion

Document

- Date, time, and name of person completing report
- description of the event
- storage unit temperature
- inventory vaccines affected
- Determine the length of time the vaccine has been out of range including any previous temp excursions














Contact

- Contact the vaccine manufacturers.
- Be prepared to provide documentation and data logger information.
- Follow manufacturer guidance based on viability of vaccines.
- Record and save any case numbers or PDFs/emails of stability information

Correct

- Determine and address what caused the temperature issue

2023-2024 COVID-19 Vaccine Product Characteristics and Information

Vaccine Manufacturer/Brand Name	Age Group	Vial Cap/ Label Color	Dose	Dose Volume	Amount of Diluent Needed per Vial	Doses per Vial
Pfizer-BioNTech/Comirnaty 2023-2024 Formula adolescent/adult single-dose vial	12 years+	 Gray	30 mcg	0.3 mL	NO DILUTION	10/package
Pfizer-BioNTech 2023-2024 Formula pediatric single-dose vial	5-11 years	 Blue	10 mcg	0.3 mL	NO DILUTION	10/package
Pfizer-BioNTech 2023-2024 Formula pediatric/infants multi-dose vial	6 months-4 years	 Yellow	3 mcg	0.3 mL	1.1 mL	3
Moderna/Spikevax 2023-2024 Formula adolescent/adult single-dose vial	12 years +	 Dark Blue	50 mcg	0.5mL	NO DILUTION	10/package
Moderna 2023-2024 Formula pediatric single-dose vial	6 months-11 years	 Dark Blue Cap/ Green Label	25 mcg	0.25mL	NO DILUTION	10/package
Novavax adolescent/adult primary series	12 years +	 Royal Blue	5 mcg rS and 50 mcg of Matric-M adjuvant	0.5 mL	NO DILUTION	10
Deauthorized: Pfizer-BioNTech adolescent/adult bivalent	12 years +	 Gray	30 mcg	0.3 mL	NO DILUTION	6
Deauthorized: Pfizer-BioNTech adolescent/adult bivalent single-dose vial	12 years +	 Gray	30 mcg	0.3 mL	NO DILUTION	10/package
Deauthorized: Pfizer-BioNTech pediatric bivalent	5-11 years	 Orange	10 mcg	0.2 mL	1.3 mL	10 (after dilution)
Deauthorized: Pfizer-BioNTech pediatric/infants bivalent	6 months-4 years	 Maroon	3 mcg	0.2 mL	2.2 mL	10 (after dilution)
Deauthorized: Moderna adolescent/adult bivalent	12 years +	 Dark Blue Cap/ Gray Label	50 mcg	0.5mL	NO DILUTION	5
Deauthorized: Moderna pediatric bivalent	6 months-11 years	 Dark Blue Cap/ Gray Label	25 mcg	0.25 mL	NO DILUTION	10
Deauthorized: Moderna pediatric/infants bivalent	6 months-5 years	 Magenta Cap/ Yellow Label	10 mcg	0.2mL	NO DILUTION	2



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Please review
[CDC's interim COVID-19 immunization schedule](#) for ages 6 months and older.

A row of small glass vials with white caps, some containing clear liquid, on a reflective surface. The vials are arranged in a line, and the background is blurred.

Knowledge Check #1

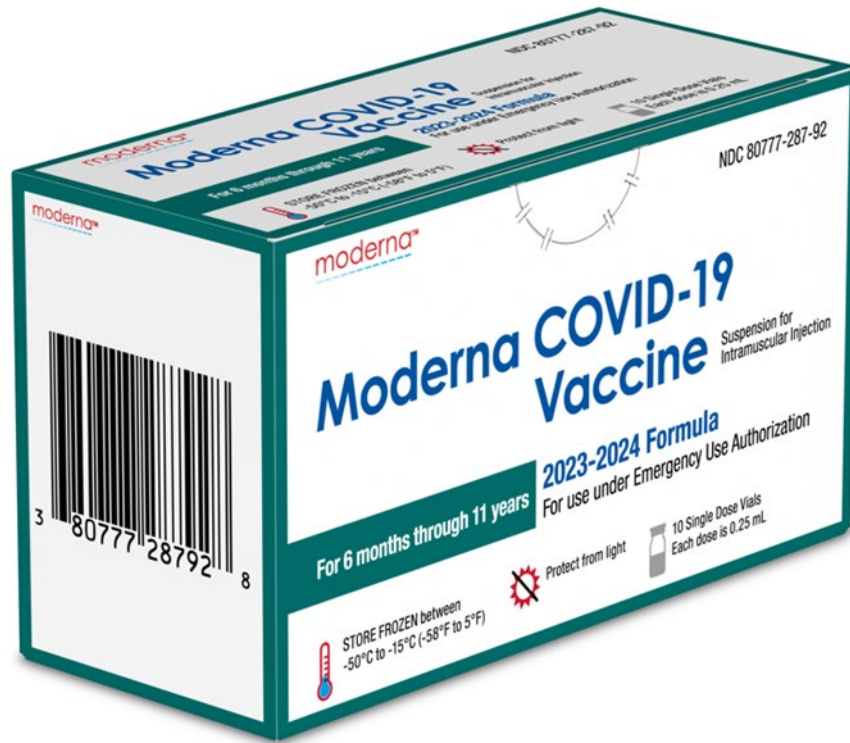
Novavax

- UNPUNCTURED VIALS
 - Store between 2C° to 8°C (36F° to 46°F) until the expiration date
- PUNCTURED VIALS
 - Store between 2C° to 8°C (36F° to 46°F) up to 6 hours. Discard vial and any remaining vaccine after 6 hours.

No new updates at this time

- [Novavax COVID-19 Vaccine | CDC](#)

Moderna



NDC 80777-102-95

moderna

COVID-19 Vaccine, mRNA
spikevax™

2023-2024 Formula

Suspension for Intramuscular Injection



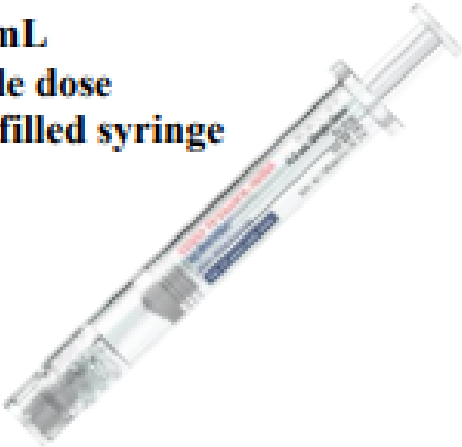
 Store frozen between
-50°C to -15°C (-58°F to 5°F)

 Protect
from light

 **10** Single Dose Vials
Each dose is 0.5 mL

For 12 years
and older

Rx
Only

Moderna COVID-19 Vaccine (2023-2024 Formula) 6 Months Through 11 Years of Age	SPIKEVAX (COVID-19 Vaccine, mRNA) (2023-2024 Formula) 12 Years of Age and Older	
 <p>0.25 mL single dose vial</p>	 <p>0.5 mL single dose vial</p>	 <p>0.5 mL single dose pre-filled syringe</p>
<p>NDC 80777-287-07 Individual single dose vial</p> <p>NDC 80777-287-92 Carton of 10 single dose vials</p>	<p>NDC 80777-102-04 Individual single dose vial</p> <p>NDC 80777-102-95 Carton of 10 single dose vials</p>	<p>NDC 80777-102-01 Individual single dose pre-filled syringe</p> <p>NDC 80777-102-96 Carton of 10 single dose pre-filled syringes</p> <p>NDC 80777-102-93 Carton of 10 single dose, blister-sealed pre-filled syringes</p>

Moderna

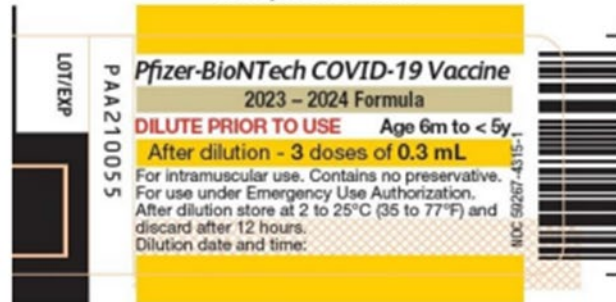
- UNPUNCTURED VIALS
 - Store in **Refrigerator 2°C and 8°C (36°F and 46°F)** for up to 30 days
 - Store in **Freezer -50°C and -15°C (-58°F and 5°F)** until the expiration date
 - Unpunctured vials may be held between 8°C and 25°C (46°F and 77°F) for a total of 24 hours.
- **DO NOT** refreeze thawed vaccine
- No Dilute necessary

Moderna

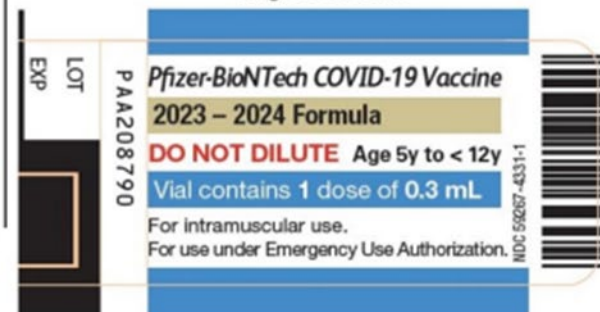
- [Vial Expiration Checker](#)
- [Moderna COVID-19 Vaccine | CDC](#)
- [Moderna COVID-19 Vaccine: Transporting Vaccine \(cdc.gov\)](#)

Pfizer-BioNTech

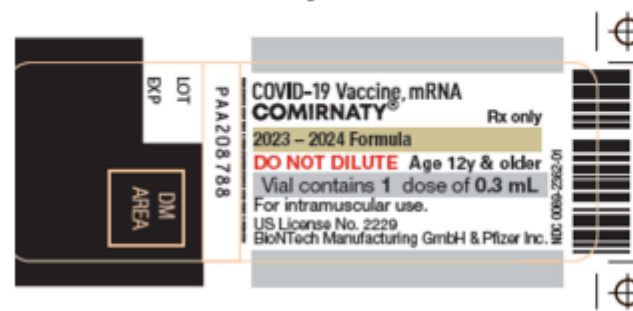
Pfizer-BioNTech COVID-19 Vaccine (2023-2024 Formula)
Ages 6 months through 4 years
Multiple Dose Vials



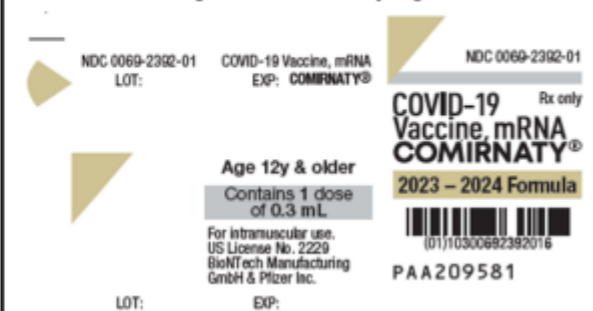
Pfizer-BioNTech COVID-19 Vaccine (2023-2024 Formula)
Ages 5 through 11 years
Single Dose Vials



COMIRNATY® (COVID-19 Vaccine, mRNA) (2023-2024 Formula)
Ages 12 years and older
Single Dose Vials


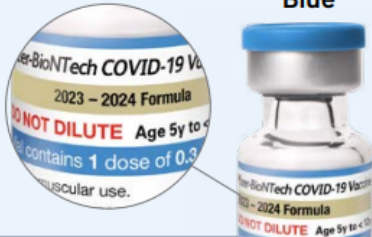


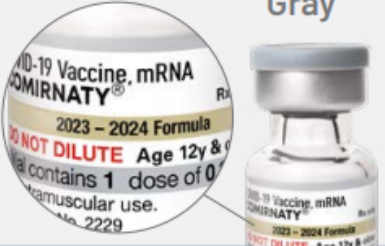
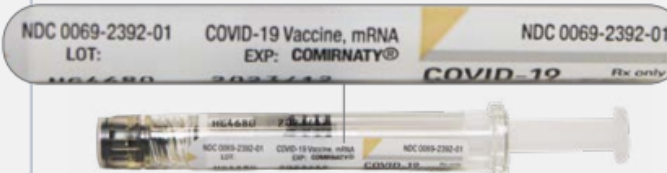
COMIRNATY® (COVID-19 Vaccine, mRNA) (2023-2024 Formula)
Ages 12 years and older
Single Dose Prefilled Syringes



Pfizer-BioNTech

- UNPUNCTURED VIALS
 - Store in **Refrigerator** for up to 10 weeks
 - Store in **Ultra-Cold Freezer** until the expiration date
 - **DO NOT** store in a regular freezer
 - Unpunctured vials may be held between 8°C and 25°C (46°F and 77°F) for a total of 12 hours.
- PUNCTURED VIALS
 - Up to 12 hours
- Vaccines and diluents must be unpacked, stored at recommended temperatures, and documented immediately after arrival.
- Frozen vaccine must be thawed prior to use. ▪ Thaw vaccine between 2°C and 8°C (36°F and 46°F) or between 8° C and 25° C (46° F and 77° F). The amount of time needed to thaw vaccine varies based on the temperature and number of vials.

	Pfizer-BioNTech COVID-19 Vaccine (2023-2024 Formula) DILUTE BEFORE USE	Pfizer-BioNTech COVID-19 Vaccine (2023-2024 Formula) DO NOT DILUTE
Age Group	6 months through 4 years ^a	5 through 11 years ^a
Cap Color & Label <i>Cap colors and labels with matching borders</i>	Yellow 	Blue 
Dose	3 mcg	10 mcg
Dose Volume	0.3 mL	0.3 mL
Dilution	1.1 mL ^b	DO NOT DILUTE
Doses per Vial	Multiple Dose Vial^{c,d}: 3 doses per vial (after dilution)	Single Dose Vial^c: 1 dose per vial
Storage Conditions		
Ultra-Low-Temperature (ULT) Freezer [-90 °C to -60 °C (-130 °F to -76 °F)]	12 months ^e	12 months ^e
Freezer [-25 °C to -15 °C (-13 °F to 5 °F)]	DO NOT STORE	DO NOT STORE
Refrigerator [2 °C to 8 °C (35 °F to 46 °F)]	10 weeks	10 weeks
Room Temperature [8 °C to 25 °C (46 °F to 77 °F)]	12 hours prior to first puncture ^{f,g}	12 hours prior to use ^f
After First Puncture [2 °C to 25 °C (35 °F to 77 °F)]	Discard 12 hours after dilution. ^e	N/A

	DO NOT DILUTE	PREFILLED SYRINGE
Age Group	12 years and older	12 years and older
Cap Color & Label <i>Cap colors and labels with matching borders</i>		
Dose	30 mcg	30 mcg
Dose Volume	0.3 mL	0.3 mL
Dilution	DO NOT DILUTE	N/A
Doses per Vial/Syringe	Single Dose Vial ^a	Single Dose Prefilled Syringe ^b
Storage Conditions		
Ultra-Low-Temperature (ULT) Freezer [-90 °C to -60 °C (-130 °F to -76 °F)]	18 months ^c	9 months ^c
Freezer [-25 °C to -15 °C (-13 °F to 5 °F)]	DO NOT STORE	DO NOT STORE
Refrigerator [2 °C to 8 °C (35 °F to 46 °F)]	Up to 10 weeks	Up to 10 weeks
Room Temperature [8 °C to 25 °C (46 °F to 77 °F)]	A total of 12 hours	Refer to product labeling ^d
After Puncture [2 °C to 25 °C (35 °F to 77 °F)]	N/A	N/A

Pfizer-BioNTech

- [Pfizer-BioNTech COVID-19 Vaccines | CDC](#)
- [Expiry checker](#)
- [Pfizer Transportation Guide](#)
- [Pfizer Storage and Handling-Label](#)
- [Pfizer-BioNTech COVID-19 Vaccine: Storage and Beyond-Use Date Tracking Labels \(cdc.gov\)](#)
- [Pfizer-BioNTech COVID-19 Vaccine: Transporting Vaccine for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations Procedure \(cdc.gov\)](#)

Ultra Cold Storage Considerations

- Use a DDL with and air probe or probe designed specifically for ultra cold temperatures
- Diluent will arrive in a separate shipment

Wasting/Clearing out Unauthorized COVID-19 Vaccine

Log into WA IIS:

- Expand Lot Numbers tab
- Select Reconciliation
- Please report these unused doses as waste in the IIS using
 - Physical inventory insert 0
 - Category select Expired
 - Reason select Open Multidose Vial
 - Scroll down to bottom and select save

*If you have inventory showing 0, select box stating inactive on right side, scroll to bottom and select save(this will remove from inventory list)

Please discard unused vaccines according to your local medical waste guidelines

A close-up photograph of a hand wearing a blue nitrile glove, holding a clear plastic syringe with a needle attached. The syringe is filled with a clear liquid. The background is a dark, out-of-focus blue. The text "Knowledge Check #2" is overlaid in white, sans-serif font in the center-right of the image.

Knowledge Check #2

QUESTIONS?

- Childhood Vaccine Program Main Contact Information
 - WAChildhoodVaccines@doh.wa.gov
 - Phone: (360)236-2829
 - Fax: (360)236-3811

Additional Resources



Resources

- Storage and Handling Summary Documents
 - [Pfizer](#)
 - [Moderna](#)
 - [Novavax](#)
- CDC Vaccine Storage and Handling Toolkit
 - <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html>
- Training and Education
 - <https://www.cdc.gov/vaccines/covid-19/training-education/index.html>
- Vaccine Adverse Event Reporting System
 - <https://vaers.hhs.gov/index.html>

CDC Resources

- How to report an adverse event to VAERS
 - Go to vaers.hhs.gov and submit a report online
 - For help call 1-800-822-7967, email info@vaers.org
 - Video instructions <https://www.youtube.com/watch?v=sbCWhcQADFE>
- How to contact CDC at CDC-INFO
 - Go to <https://www.cdc.gov/cdc-info/index.html>
 - Call 1-800-CDC-INFO (1-800-232-4636)
- Safety Information resources
 - <https://www.cdc.gov/vaccinesafety/ensuringsafety/monitoring/vaers/index.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety.html>

Provider Education Resources

- [2023-2024 COVID-19 Vaccine Product Characteristics and Information \(wa.gov\)](#)
- [What is a Vaccine Expiration Date? - TRAIN Learning Network](#)
- [What is a Vaccine Beyond-Use Date or Time? - TRAIN Learning Network](#)
- [The Difference Between a Vaccine Expiration Date and Beyond-Use Date or Time \(BUD\) - TRAIN Learning Network](#)
- [How to Report Wastage of the COVID-19 Vaccine in IIS](#)



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