




COVID-19 Vaccine Storage and Handling

June 3, 2021

Housekeeping

- **How to Ask Questions**

- Click on the  icon found at the bottom part of your screen
- A box will open where you can type in questions, comments, indicate sound problems, etc.
- Use this throughout the webinar to ask questions

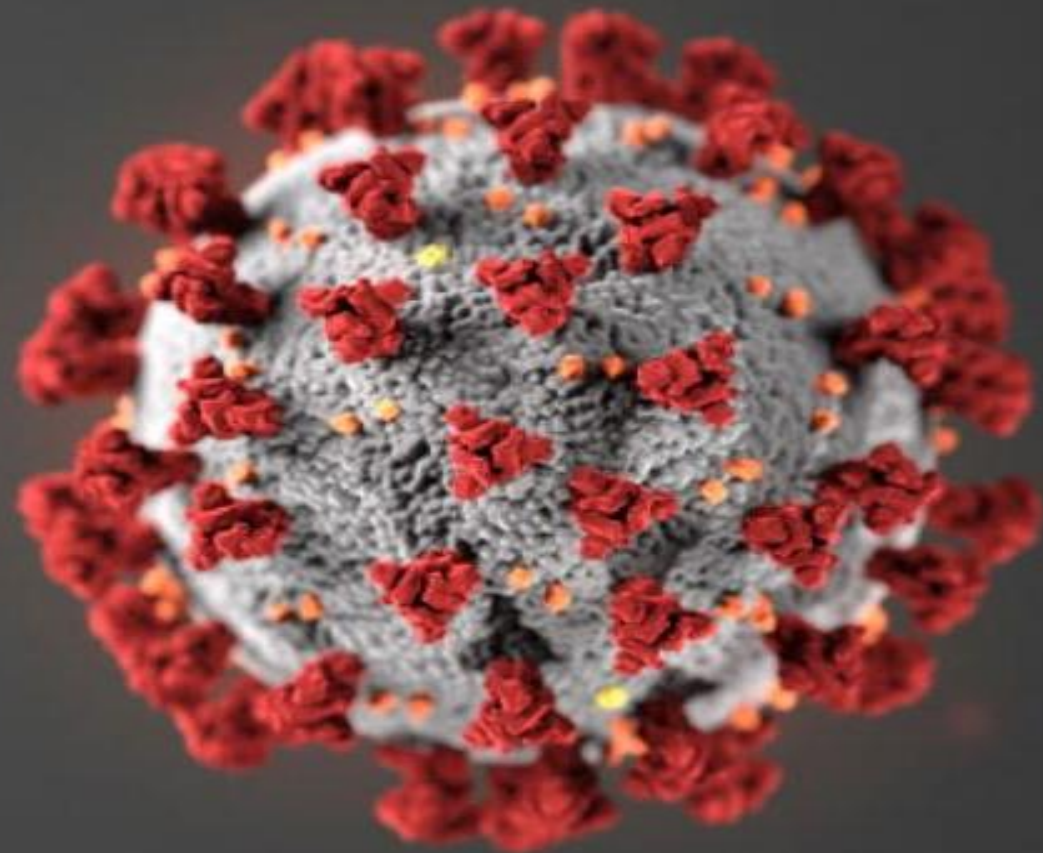
- **Slides & Recording**

- This webinar is being recorded and a link as well as slides will be emailed out through our listserv as well as posted on our website at: www.michigan.gov/COVIDvaccineprovider

Topics Covered

- Storage Equipment
- Pfizer Storage and Handling
- Moderna Storage and Handling
- Janssen (Johnson and Johnson) Storage and Handling
- Additional Q & A
- Resources

COVID-19 Vaccine Storage Equipment



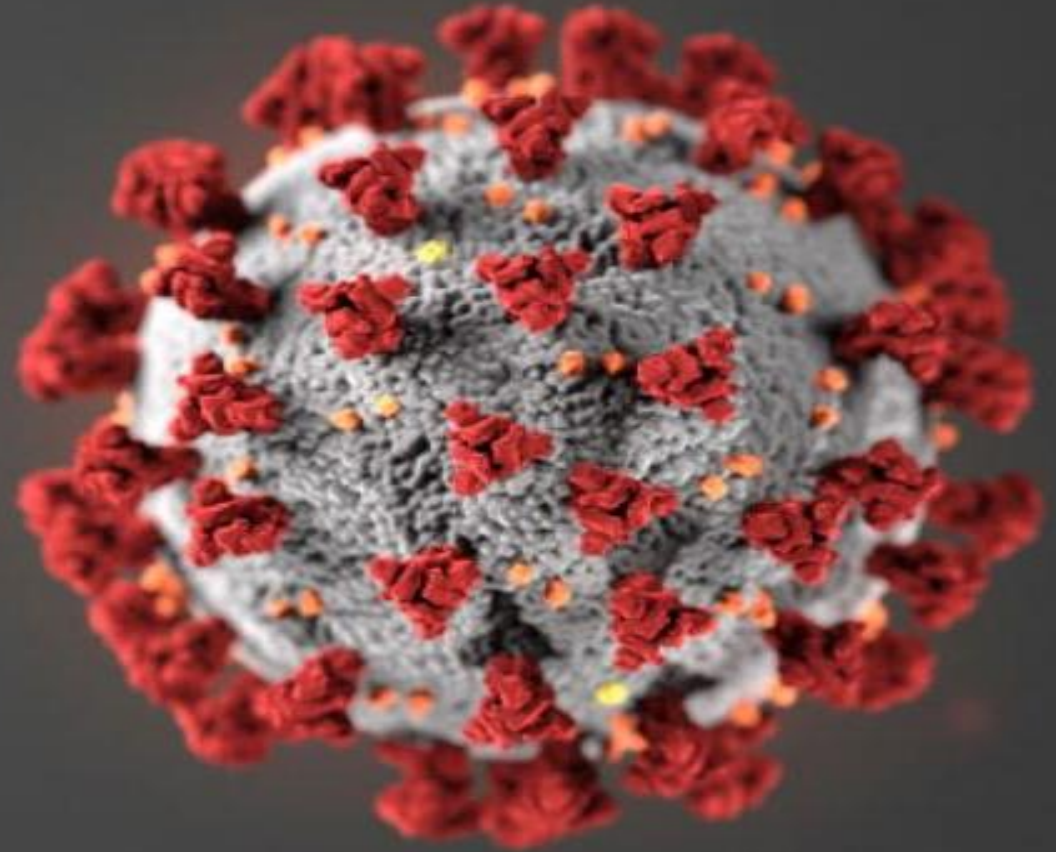
COVID-19 Vaccine Storage Equipment

Ensure storage equipment meets CDC requirements

- Preferred: Use purpose-built or “pharmaceutical-grade” units because they are built to store biologics, including vaccines. These units can be compact, under-the-counter style or large
 - Household-grade units can be an acceptable alternative if temperatures for vaccine storage can be maintained. However, do not use the freezer compartment of these units. If your facility provides frozen vaccine, a separate stand-alone freezer unit is necessary
- Ultra-cold note: Keep in mind that most standard freezer units do not meet ultra-cold freezer temperatures between -60° C and -80° C (-76° F and -112° F)
- Do not use a dormitory-style or bar-style storage unit under any circumstances
- Utilize digital data loggers (DDLs) for continuous temperature monitoring on all units, including transport

<https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>

Pfizer-BioNTech COVID-19 Vaccine Storage & Handling



Pfizer-BioNTech Storage Temperature

| Before Puncture | After Puncture |
|--|---|
| Between -80°C and -60°C (-112°F and -76°F) until the expiration date | 2°C to 25°C (36°F to 77°F) for up to 6 hours *Discard any unused vaccine after 6 hours |
| Between -25°C and -15°C (-13°F and 5°F) for up to 2 weeks | |
| Between 2°C and 8°C (36°F and 46°F) for up to 1 month (31 days) | |

Multidose Vial: 6 doses

Diluent: 0.9% sodium chloride (preservative free, normal saline) provided in the ancillary kit. Do NOT use any other diluent

Pfizer-BioNTech Transport Storage Temperature

| Before Puncture | After Puncture |
|--|--|
| Between -80°C and -60°C (-112°F and -76°F) | 2°C to 25°C (36°F to 77°F) for up to 6 hours. *Discard any unused vaccine after 6 hours |
| Between -25°C and -15°C (-13°F and 5°F) | |
| Between 2°C and 8°C (36°F and 46°F) | |

CDC recommends transporting vaccine at refrigerated or frozen temperatures

Detailed guidance can be found in CDC's Storage and Handling Toolkit COVID-19 addendum and Transporting Vaccine for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Location <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html>


YES! After the two-week time frame, you have two options:

- You may transfer vaccine to refrigerated storage between 2°C and 8°C (36°F and 46°F) for up to 1 month (31 days)
- You may return vaccine **one time** to ultra-cold temperature storage between -80°C and -60°C (-112°F and -76°F)
 - Once returned to ultra-cold storage, the 2-week time frame is suspended

After vaccine has been stored at frozen temperature for 2 weeks, can it be stored at refrigerated temperatures for an additional 31 days?

Pfizer-BioNTech Storage and Handling Summary Handout

Pfizer-BioNTech COVID-19 Vaccine
Storage and Handling Summary



Thermal Shipping Container
CDC recommends providers consider significant support to store vaccine procedures for regular maintenance. Use the Controlant temperature monitoring included with the thermal shipping container to monitor the temperature.

- Review contact information.
- If the contact for your order will NOT be notified in the event of an excursion. Contact your jurisdiction's program for assistance.
- If your contact is valid and you cannot load email hyperlinks for troubleshooting (https://onsitemonitoring).
- Identify up to 4 contacts to rely on the container's temperature.
- Review **DAILY** e-mails on the system.
- Click the link in daily e-mails to view all temperature data. Save the temperature data for at least 30 days.

Ultra-Cold Freezer
Before mixing, the vaccine may be stored at -80°C and -60°C (-112°F and -76°F).

- Store vaccine vials upright in the tray or box.
- Protect from light.
- Vaccine may be stored until the expiration date.

Freezer
Before mixing, the vaccine may be stored until the manufacturer's expiration date exceeds 2 weeks.

- These temperatures are within the routinely recommended vaccine storage range for this vaccine is tighter.
- If storing the vaccine in a freezer, carefully adjust the freezer to the correct temperature range for storage.
- Use CDC's freezer storage temperature monitoring vaccine to document storage unit temperature.
- Monitor how long the vaccine is stored using CDC's beyond-use date for COVID-19 vaccine.

*Dry ice will not be provided for Pfizer 450

Refrigerator
Before mixing, the vaccine may be stored for up to 31 days, contact the manufacturer's jurisdiction's guidance for proper storage.

- Monitor how long the vaccine is stored in the refrigerator using CDC's beyond-use date for Pfizer-BioNTech COVID-19 vaccine.
- Vaccine can be ordered in 2 amounts:

Temperature Monitoring
Ultra-cold freezer, freezer, refrigerator
At the beginning of the workday to determine the temperature monitoring, use a thermometer.

- Ultra-cold temperatures: Use a thermometer to measure ultra-cold temperatures.

Check and record the temperature.

- Option 1 (preferred): Min/Max Temperature**
Most DDLs display min/max temperatures and the min/max temperatures are displayed on the device.

Thermal Shipping Container:
Use a thermometer to monitor the temperature.

Diluent
0.9% sodium chloride (normal saline) solution. See CDC's guidance for storing the diluent.

Mixed Vaccine
Once mixed, vaccine can be stored at 2°C to 25°C (35°F to 77°F) for up to 6 hours.

- Discard any remaining vaccine.

Disposal
Once vaccine has reached its expiration date, it should be disposed of. If instructed to dispose of vaccine, follow your local and state regulations (awardee-imz-websites.html) for disposal.

- Do NOT return vaccine in the container to the manufacturer.

Basics

- Store vaccine in an ultra-cold freezer, thermal shipping container, freezer, or refrigerator. See guidance below for each storage unit.
- Follow the manufacturer's instructions for returning the thermal shipping container.
- Check and record storage unit temperatures each workday. See guidance below for each type of storage unit. Save storage records for 3 years, unless your jurisdiction requires a longer time period.

Deliveries

Vaccine
Use CDC's Delivery Checklist for Pfizer-BioNTech Vaccine when accepting a delivery and unpacking vaccine. When vaccine is delivered:

- Open the thermal shipping container. Press the stop shipment button on the temperature monitoring device for 5 seconds.
- The LED indicator light will change to a solid color and a temperature status report will be e-mailed to the person who ordered the vaccine.
- Proceed based on the color of the LED indicator light:
No color or red: Wait for the status report.
Green: Unpack the vaccine.
- Follow the manufacturer's guidance for unpacking the vaccine. Inspect the trays.
 - Do not open the vial trays or remove vials until ready to thaw/use the vaccine.
 - If storing the vaccine at ultra-cold temperatures, return vaccine to frozen storage within 5 minutes.
- If not using the thermal shipping container to store vaccine, return the thermal shipping container per the manufacturer's instructions.
 - Ensure ALL the vaccine has been removed before returning the container.

Dry Ice Safety

- Dry ice is needed to maintain proper temperatures in the thermal shipping container.
- Ensure staff has proper PPE and is trained to handle dry ice safely.
- Do not use or store dry ice in confined areas, walk-in refrigerators, environmental chambers, or rooms without ventilation. A leak in such an area could cause a depletion of oxygen in the atmosphere, which may lead to asphyxiation.

Ancillary Supply Kit
An ancillary supply kit will be delivered separately from the vaccine and includes:

- Mixing supplies:** Diluent, needles, syringes, and sterile alcohol prep pads
 - Mixing supplies are packaged separately with a green identification label.
 - Do NOT use mixing supplies to administer vaccine.
- Administration supplies:** Needles, syringes, sterile alcohol prep pads, vaccination record cards, and some PPE.
 - Ancillary supply kits have been reconfigured to support the number of doses ordered.

CDC's Pfizer-BioNTech COVID-19 Vaccine Storage and Handling Summary
CDC's Pfizer Beyond-Use Date (BUD) for COVID-19 Vaccine
CDC's Delivery Checklist
CDC's Freezer and Refrigerator Storage and Handling Summary

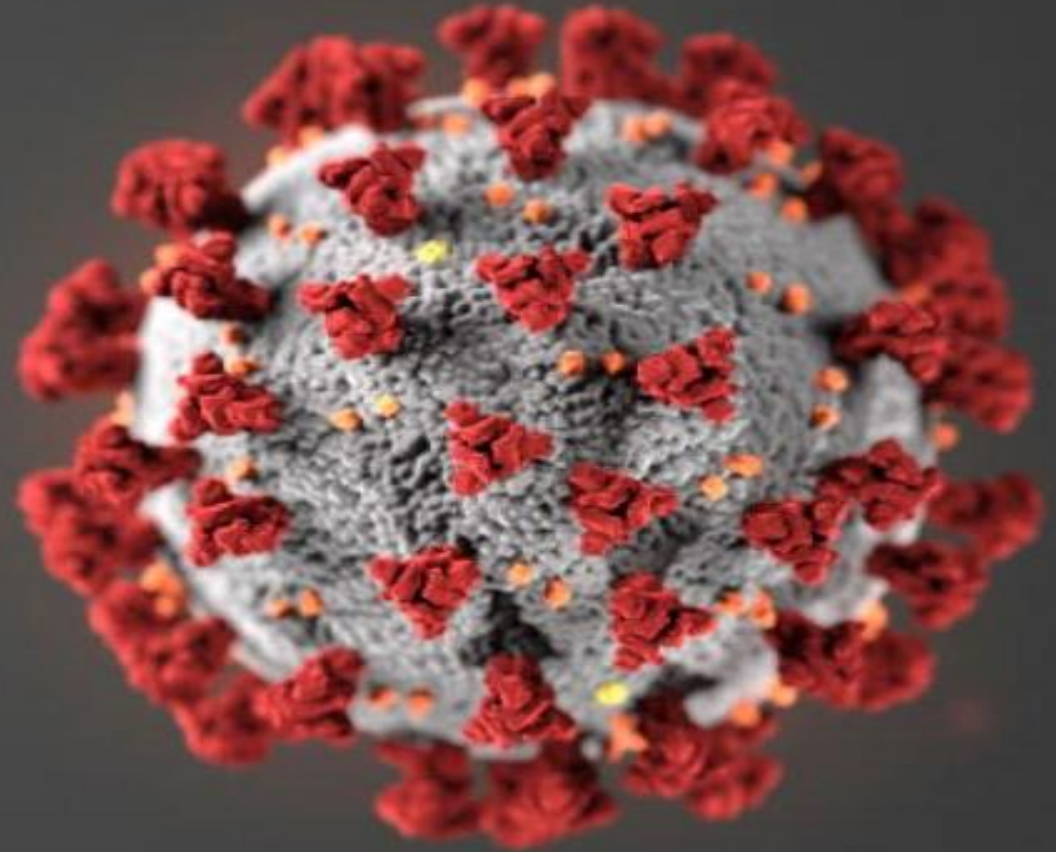
For additional information, visit <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/storage-summary.pdf>

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- Basics
- Deliveries
- Dry Ice Safety
- Ancillary Supply Kit
- Thermal Shipping Container
- Ultra-Cold Freezer
- Freezer Storage
- Refrigerator Storage
- Temperature Monitoring
- Diluent
- Disposal

<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/storage-summary.pdf>

Moderna COVID-19 Vaccine Storage and Handling



Moderna Storage Temperature

| Before Puncture | After Puncture |
|---|---|
| Between -50°C and -15°C (-58°F and 5°F) until the expiration date | 2°C and 25°C (36°F and 77°F) for up to 12 hours *Discard any unused vaccine after 12 hours |
| Between 2°C and 8°C (36°F and 46°F) for up to 30 days | |
| Between 8°C and 25°C (46° and 77°F) for a total of 24 hours | |

Multidose Vial: Maximum of 11 doses or 15 doses (depending on presentation)

Diluent: None

Moderna Transport Storage Temperature

| Before Puncture | After Puncture |
|---|--|
| Between -50°C and -15°C (-58°F and 5°F) | 2°C and 25°C (36°F and 77°F) for up to 12 hours |
| Between 2°C and 8°C (36°F and 46°F) for up to 12 cumulative hours | *Discard any unused vaccine after 12 hours |

CDC recommends transporting vaccine at refrigerated or frozen temperatures

Detailed guidance can be found in CDC's Storage and Handling Toolkit COVID-19 addendum and Transporting Vaccine for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Location <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html>

Moderna Vaccine Transport Resources

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Moderna COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F) for up to 30 days.

Lot number(s): _____
 Today's date: ____/____/____ **USE BY*** Date: ____/____/____

*After this date/time, do NOT use. Contact the manufacturer for guidance. If directed to discard the vaccine, follow the manufacturer's and your jurisdiction's guidance on proper disposal.

Vaccine may be transported for 12 cumulative hours.

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

02/18/202 <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/bud-tracking-labels.pdf> 2

Moderna COVID-19 Vaccine

Transporting Vaccine for Vaccination Clinics
Held at Satellite, Temporary, or Off-Site Locations

Procedure

Follow storage and handling best practices outlined in CDC's *Vaccine Storage and Handling Toolkit* to maintain the cold chain when packing and transporting vaccine.

CDC recommends transporting Moderna COVID-19 vaccine at frozen or refrigerated temperature using a portable freezer or refrigerator unit or a container/packout qualified to maintain the recommended temperatures.

To monitor vaccine temperatures, use a digital data logger with a buffered temperature probe that displays current, minimum, and maximum temperatures.

Upon arrival at clinic, place vaccine in an on-site storage unit that maintains recommended temperatures, if available. If there is no storage unit available, keep the vaccine in the transport container, maintaining recommended temperatures.

Temperature monitoring: Record time and min/max temperatures:

- At the start of transport
- Whenever the transport container is opened
- When transport concludes

Best Practices for Transporting mRNA Vaccines

- Protect vaccines as much as possible from drops, shocks, and vibration.
- To minimize movement, transport vials in the carton whenever possible.
- If individual vials must be transported:
 - Place vials with padding material like bubble wrap or similar materials to prevent breaking.
 - Secure storage containers during transport.
 - Keep vaccine vials upright whenever possible.

General Information

- Vaccine vials may be transported more than once.
- Transport thawed vaccine at refrigerated temperatures. Once thawed, vaccine should not be refrozen.
- Do NOT use dry ice when transporting vaccine.
- Both punctured and unpunctured vials may be transported.

Frozen transport: Between -50°C and -15°C (-58°F and 5°F)

- Only unpunctured vials may be transported frozen.
- Frozen transport is preferred if vaccine must be transported.
 - Do not freeze thawed vaccine.

Refrigerated transport: Between 2°C and 8°C (36°F and 46°F) for up to 12 total hours

- Unpunctured vials:** Vaccine may be stored at refrigerated temperatures for up to 30 days.
 - Time used for transport counts as part of the 30-day limit.
- Punctured vials:** Punctured vials may be transported at refrigerated temperatures
 - Once punctured, the vaccine must be used within 12 hours.

CDC's Transport Temperature Log <https://www.cdc.gov/vaccines/covid-19/downloads/transport-temperature-log.pdf>

CDC's beyond-use date (BUD) labels <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/bud-tracking-labels.pdf>

USP COVID-19 Vaccine Toolkit: Operational Considerations for Healthcare Practitioners <https://www.usp.org/covid-19/vaccine-handling-toolkit>

04/ <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/Moderna-Vaccine-Transport.pdf> 1

No! After the first dose has been withdrawn, vials must be stored between 2°C and 25°C (36°F and 77°F) and used within 12 hours

If I puncture a multidose vial but do not administer all doses in the multidose vial today, can I store it in the refrigerator for use the following day?

Moderna Storage and Handling Summary Handout

Moderna COVID-19 Vaccine Storage and Handling Summary

Refrigerator

Unpunctured vials may be stored in the refrigerator between 2° to 8°C (36° to 46°F) for up to 30 days.*

- Do NOT refreeze thawed vaccine.
- Thawed vaccine can be handled in room light.
- Monitor how long the vaccine has been in the refrigerator using CDC's beyond-use date labels.
 - Remove the box from frozen storage.
 - Complete the information on the storage label.
 - Attach it to the box holding the vaccine vials.
 - Once labeled, place vaccine in the refrigerator.

Punctured vials may be stored between 2°F and 25°C (36°F and 77°F) for up to 12 hours.

Temperature Monitoring

Storage unit temperatures must be monitored regularly and checked and recorded at the beginning of, and if any excursions have occurred since the last temperature check. For accurate temperature monitoring, (DDL) with a detachable probe that best reflects vaccine temperatures (e.g., probe buffered with glycol, Teflon®). Check and record the temperature daily using a temperature log and one of the options below

- Option 1: Minimum/Maximum Temperatures (preferred)**
Most DDLs display minimum and maximum (min/max) temperatures. Check and record the min/max temperatures at the start of each workday.
- Option 2: Current Temperature**
If the DDL does not display min/max check and record the current temperature at the start and end of the workday. Rev DDL temperature data daily.

For CDC temperatures logs, see <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

Transporting Vaccine

Moderna COVID-19 vaccine may be transported at frozen and refrigerated temperatures using a portable cooler to maintain appropriate temperatures.

Detailed guidance can be found in CDC's Storage and Handling Toolkit COVID-19 addendum and Transporting Vaccine Clinics Held at Satellite, Temporary, or Off-Site Locations

Disposal

Once vaccine has reached its expiration or beyond-use date, contact the manufacturer for guidance on how to properly dispose of vaccine, dispose of the vial (with any remaining vaccine) and packaging as per local and state regulations. Contact your jurisdiction's immunization program for guidance (<https://www.cdc.gov/od/oc/immz/award-ee-imz-websites.html>).

*Unpunctured vials may be stored between 8° to 25°C (46° to 77°F) for a total of 24 hours.

For additional information, refer to the manufacturer's product information at <https://www.modernatx.com/covid-19> and CDC's Moderna COVID-19 materials <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

CDC's Vaccine Storage and Handling Toolkit
CDC's Moderna Beyond-Use Date (BUD) Labels
Moderna COVID-19 Vaccine Transport and Handling Toolkit
<https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

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Moderna COVID-19 Vaccine Storage and Handling Summary

Basics

- Store vaccine in a freezer or refrigerator. See guidance below for each storage unit.
- Each box contains 10 multidose vials. Vaccine is supplied in two presentations:
 - Maximum of 11 doses per vial
 - Maximum of 15 doses per vial
- Each box is approximately 2 inches by 2 inches by 5.4 inches

Use vaccine vials stored in the refrigerator before removing vials from frozen storage.

Check and record storage unit temperature each workday. See guidance below for each type of temperature monitoring device. Save storage records for 3 years, unless your jurisdiction requires a longer time period.

Deliveries

Vaccine

- The vaccine will arrive frozen between -50°C and -15°C (-58°F and 5°F).
- Examine the shipment for signs of damage.
- Open the box and remove TagAlert Temperature Monitor from box (placed in the inner box next to vaccine).
- Check the TagAlert temperature monitoring device by pressing the blue "start and stop" button.
 - Left arrow points to a **green checkmark**: The vaccine is ready to use. Store the vaccine at proper temperatures immediately.
 - Right arrow points to a **red X**: The numbers 1 and/or 2 will appear in the display. Store the vaccine at proper temperatures and label **DO NOT USE!** Call the phone number indicated in the instructions or your jurisdiction's immunization program **IMMEDIATELY!**
- The expiration date is NOT printed on the vaccine vial or carton. To determine the expiration date:
 - Scan the QR code located on the outer carton, or
 - Go to www.modernatx.com/covid19vaccine-eua/.

Ancillary Supply Kit

An ancillary kit with supplies will be provided for administering the vaccine. It includes enough supplies to administer 100 doses of vaccine (10 doses per vial).



Administration supplies include needles, syringes, sterile alcohol prep pads, vaccination record cards (shot cards), and some PPE.

The kit is delivered separately from the vaccine. Unpack the kit and check for receipt of the correct administration supplies and quantities.

Freezer

Unpunctured vials may be stored in the freezer between -50°C and -15°C (-58°F and 5°F).

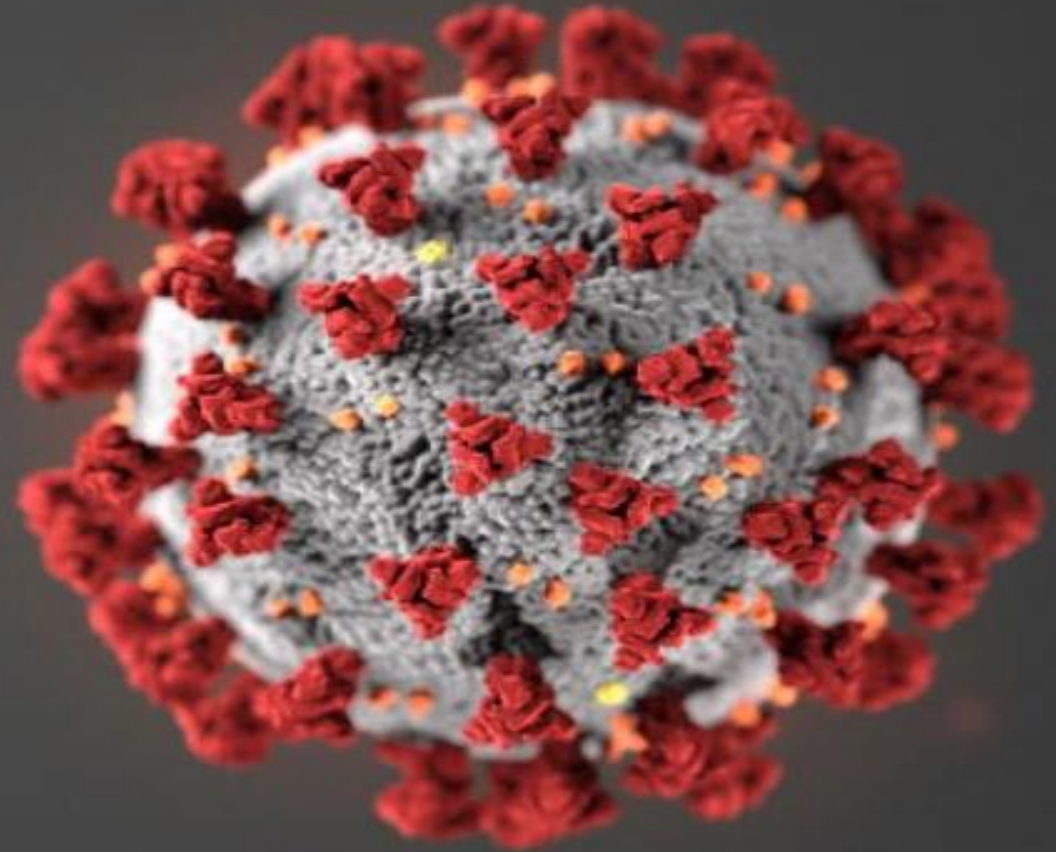
- Store in the original carton



- Basics
- Deliveries
- Ancillary Supply Kit
- Freezer Storage
- Refrigerator Storage
- Temperature Monitoring
- Transporting Vaccine
- Disposal

<https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/storage-summary.pdf>

**Janssen
(Johnson & Johnson)
COVID-19 Vaccine
Storage and Handling**



Janssen Storage Temperature

| Before Puncture | After Puncture |
|--|--|
| Between 2°C and 8°C (36°F and 46°F) until the expiration date | Between 2°C and 8°C (36°F and 46°F) for up to 6 hours *Discard any unused vaccine after 6 hours |
| | Between 9°C and 25°C (47°F and 77°F) for up to 2 hours *Discard any unused vaccine after 2 hours |

Multidose Vial: 5 doses

Diluent: None

Janssen Transport Storage Temperature


| Before Puncture | After Puncture |
|-------------------------------------|---|
| Between 2°C and 8°C (36°F and 46°F) | Between 2°C and 8°C (36°F and 46°F) for up to 6 hours *Discard any unused vaccine after 6 hours |

Detailed guidance can be found in CDC's Storage and Handling Toolkit COVID-19 addendum and Transporting Vaccine for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Location <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html>

Janssen Vaccine Transport Resources

Janssen COVID-19 Vaccine (Johnson & Johnson)

Transporting Vaccine for Vaccination Clinics
Held at Satellite, Temporary, or Off-Site Locations



» Procedure


Follow storage and handling best practices outlined in CDC's *Vaccine Storage and Handling Toolkit* to maintain the cold chain when packing and transporting vaccine.

Transport Janssen COVID-19 Vaccine in a portable refrigerator unit or a container/packout qualified to maintain temperature between 2°C and 8°C (36°F and 46°F). To monitor vaccine temperatures, use a digital data logger with a buffered temperature probe that displays current, minimum, and maximum temperatures. A DDL with an external temperature display is preferred to minimize opening the transport container.


Upon arrival at clinic, place vaccine in an on-site storage unit that maintains recommended temperatures, if available. If there is no storage unit available, keep the vaccine in the transport container, maintaining recommended temperatures.

Temperature monitoring: Record time and min/max temperatures:

- At the start of transport
- Whenever the transport container is opened
- When transport concludes



Detailed information and additional transport guidelines can be found in CDC's *Vaccine Storage and Handling Toolkit*.



» General Information

- Vaccine vials may be transported more than once.
- Both punctured and unpunctured vials may be transported.


Refrigerated transport: Between 2°C and 8°C (36°F and 46°F)

- **Unpunctured vials:** Vaccine may be transported at refrigerated temperatures until the expiration date.
 - CDC recommends the total time for transport alone or transport plus clinic workday should be a maximum of 8 hours (e.g., if transport to an off-site clinic is 1 hour each way, the clinic may run for up to 6 hours).
- **Punctured vials:** Punctured vials may be transported at refrigerated temperatures.
 - Once punctured, store the vaccine at refrigerated temperatures. Vaccine must be used within 6 hours.
 - Time used for transport counts as part of the 6-hour time limit.

- Do NOT use dry ice when transporting vaccine.
- CDC recommends transporting vaccine in vials. However, there may be instances when the only option is to transport predrawn vaccine in a syringe. U.S. Pharmacopeia includes guidance for transporting predrawn vaccine in syringes in the USP COVID-19 Vaccine Toolkit: Operational Considerations for Healthcare Practitioners.


CDC's Transport Temperature Log
USP COVID-19 Vaccine Toolkit: Operational

YOU CALL THE SHOTS



Temperature Log

when Transporting Vaccine at Refrigerated Temperatures



When transporting refrigerated vaccines, use:

- A portable refrigerator or vaccine storage container qualified to maintain temperatures between 2°C and 8°C (36°F and 46°F).
- A digital data logger (DDL) with a thermal buffer and external temperature display (preferred). Place the probe as close as possible to the vaccine.
- This temperature log to document temperatures and how long the vaccine is in the portable storage container.

Temperature monitoring and transport time frames

- Most DDLs display minimum/maximum (min/max) temperatures.*
- Record the time and min/max temperatures:
 - At the start of transport
 - Every time the portable storage container is opened
 - When transport is completed
- The total time for transport alone or transport plus clinic workday should be a maximum of 8 hours.²
- Beyond-use date/time (BUD), if applicable, are included in transport time. For example, if the vaccine may be stored at refrigerated temperature for 120 hours, transport is included in this time frame.

! If the temperature is out of range, TAKE ACTION!

1. Do NOT discard the vaccine.
2. Label the vaccine "Do Not Use."
3. Complete the Vaccine Troubleshooting Record.
4. Contact the manufacturer to determine under what conditions (refrigerated) to store the vaccine as quickly as possible.

Today's date: _____

Transport start time: _____

Transport end time: _____

Provider name: _____

Facility name: _____

PIN number: _____

Temperatures measured in (circle one):

Celsius

Fahrenheit

| | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Time | | | | | | | | | | | | | | | | | | | | |
| Staff initials | | | | | | | | | | | | | | | | | | | | |
| Min/max temperatures | | | | | | | | | | | | | | | | | | | | |

Temperatures lower than 2°C (36°F) and higher than 8°C (46°F) are out of range.² Complete a Vaccine Troubleshooting Record. Contact the manufacturer and your immunization program.

- After packing the vaccine, open the portable storage container only when necessary.
- If using a company or personal vehicle, transport vaccines inside the passenger compartment (not in the trunk or bed of a truck, which may be too hot or too cold).
- Avoid leaving the portable storage container in direct sunlight or unattended.
- If needed, transport diluents with their corresponding vaccines to ensure there are equal amounts of vaccines and diluents. Follow the manufacturer's guidance for specific temp.

- Save this record for 3 years, unless your state/local jurisdiction requires a longer time period. See CDC's *Vaccine Storage and Handling Toolkit* for additional guidance.
- Refer to CDC's *Vaccine Storage and Handling Toolkit* for additional guidance when transporting vaccines.

* If the DDL does not measure min/max temperatures, check and record temperatures hourly.

<https://www.cdc.gov/vaccines/covid-19/downloads/transport-temperature-log.pdf>

03/04/2021
CSS220334

<https://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/downloads/janssen-transportation-guidance.pdf>

No! After the vial is first punctured, the vaccine vial may be held:

- For up to 2 hours at room temperature; discard any vaccine not used within 2 hours

--OR--


- For up to 6 hours refrigerated between 2°C and 8°C; discard any vaccine not used within 6 hours

You should not add these time limits together (i.e., you may not hold the vaccine at room temperature for 2 hours and **then** hold it refrigerated for another 6 hours)

After first puncturing the vial, can the vaccine be held at room temperature for 2 hours, then in the refrigerator for an additional 6 hours, for a total of 8 hours?

Janssen (J & J) Storage and Handling Summary Handout

Janssen COVID-19 Vaccine (Johnson & Johnson) Storage and Handling Summary



» Refrigerator Storage

- CDC recommends storing vaccine between 2°C and 8°C (36°F and 46°F):
 - Unpunctured vials until the expiration date*
 - Punctured vials for up to 6 hours.† Note the date and time the vial was first punctured. Discard vaccine not used within this time.
- Do not freeze.
- Protect from light.
- As the expiration date approaches, the expiration date may be extended using the same "Deliveries" section. Do not ensure the expiration date has not expired using an expiration date tracking tool that does not update the expiration date.

» Temperature Monitoring

Storage unit temperatures must be monitored regularly and checked and recorded at the beginning of each workday. Determine if any excursions have occurred since the last temperature check. For accurate temperature monitoring, use a digital data logger (DDL) with a detachable probe that best reflects vaccine temperatures (e.g., polyethylene glycol, glass beads, sand, or Teflon®). Check and record the temperature daily using a temperature log and a digital data logger.

- **Option 1 (preferred): Minimum/Maximum Temperatures**
Most DDLs display minimum and maximum (min/max) temperatures. Check and record the min/max temperatures at the start of each workday.
- **Option 2: Current Temperature**
If the DDL does not display min/max temperatures, check and record the current temperature of the workday. Review the current temperature daily.

*Unpunctured vials may also be stored between 9°C and 25°C (47°F and 77°F) for up to 12 hours.
†Alternate option: A punctured vial may be stored at room temperature (9°C to 25°C [47°F to 77°F]) for up to 2 hours.


» Transporting Vaccine

Janssen COVID-19 vaccine may be transported at refrigerated temperatures using a portable unit or cooler to maintain appropriate temperatures. Detailed guidance can be found in CDC's Storage and Handling Toolkit COVID-19 addendum and Temperature Monitoring and Transporting Vaccine Clinics Held at Satellite, Temporary, or Off-Site Location.

CDC's Janssen COVID-19 vaccine materials <https://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html>
CDC's Vaccine Storage and Handling Toolkit <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling.html>
CDC's Temperature Monitoring and Transporting Vaccine Clinics Held at Satellite, Temporary, or Off-Site Location <https://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html>
CDC's Transporting Vaccine Clinics Held at Satellite, Temporary, or Off-Site Location <https://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html>

For additional information, visit <https://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/downloads/janssen-storage-handling-summary.pdf>

Janssen COVID-19 Vaccine (Johnson & Johnson) Storage and Handling Summary




» Basics

- Store vaccine in a refrigerator. See guidance below for further details.
- Each carton contains 10 multidose vials (50 doses).
 - A carton is approximately 3.7 in x 3.7 in x 2.1 in.
 - Each multidose vial contains 5 doses.
- Check and record storage unit temperatures each workday. See guidance below for each type of temperature monitoring device. Save storage records for 3 years, unless your jurisdiction requires a longer time period.

» Deliveries

Vaccine

1. The vaccine will arrive in a 2° to 8°C (36°F and 46°F) qualified shipping container.
2. Examine the shipment for signs of damage.
3. As a backup to the qualified shipping container, temperature monitors are placed in each shipment. Janssen vaccines may include thawed and frozen/partially frozen vaccines and due to this, only warm monitors will be included in Janssen shipments.
4. Remove the instruction card for the temperature monitor immediately. Follow the guide on the back of the card to read the monitor.
5. The expiration date is NOT printed on the vaccine vial or carton. To determine the expiration date:
 - Scan the QR code on the outer carton, or
 - Call 1-800-565-4008, or
 - Visit www.vaxcheck.jnj.com.Write the expiration date on the carton.

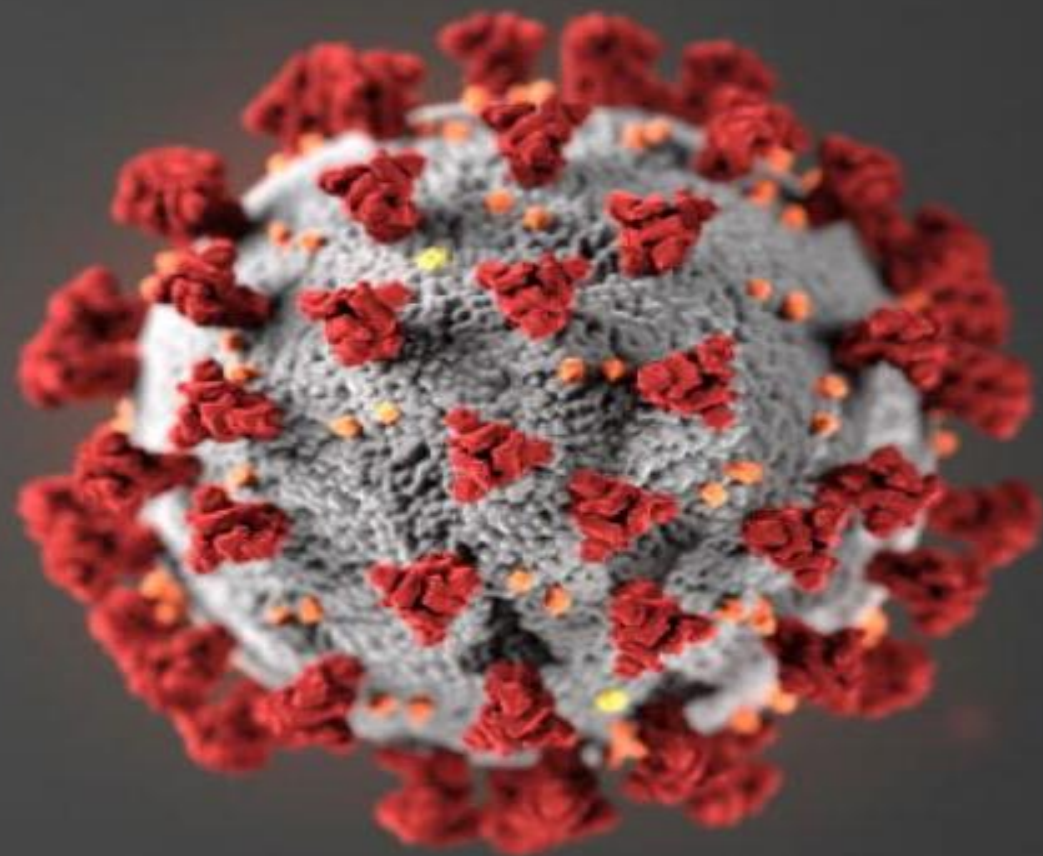


Ancillary Supply Kit

- An ancillary supply kit will be provided and includes enough supplies to administer 100 doses of vaccine.
- Administration supplies include needles, syringes, sterile alcohol prep pads, vaccination record cards (shot cards), and some PPE.
- The kit is delivered separately from the vaccine. Unpack the kit and check for receipt of the correct administration supplies and quantities.

- Basics
- Deliveries
- Ancillary Supply Kit
- Refrigerator Storage
- Temperature Monitoring
- Transporting Vaccine

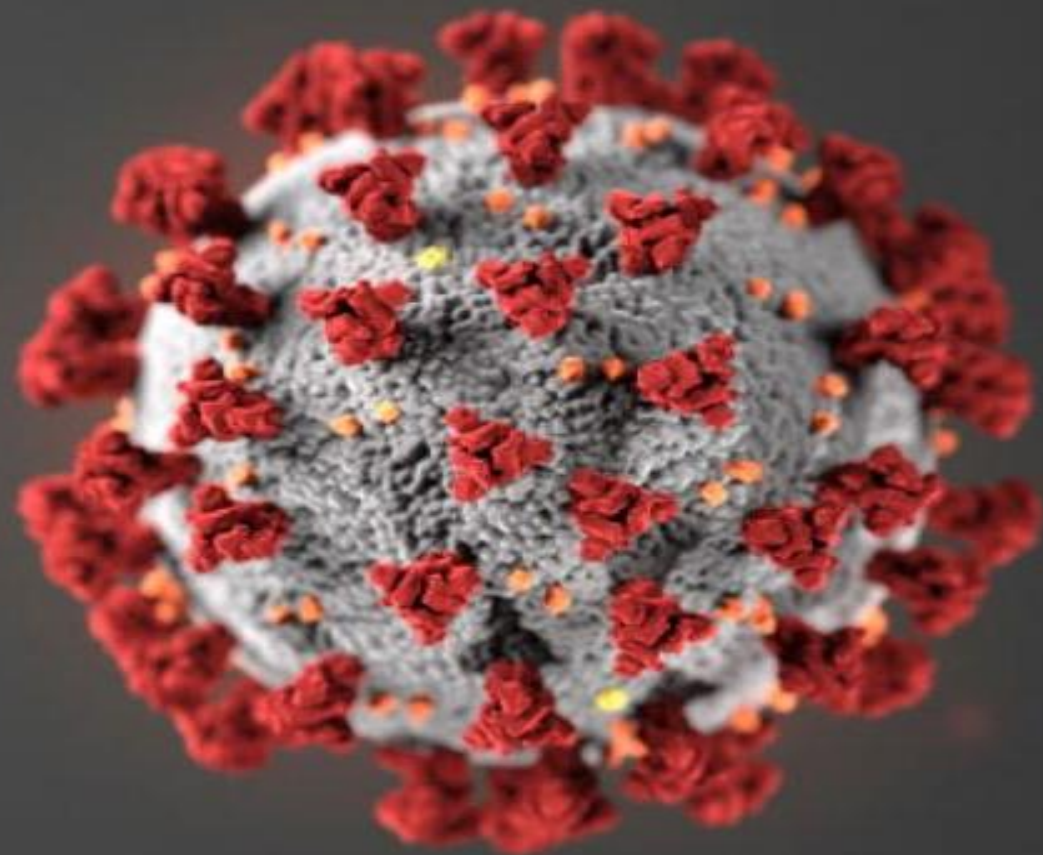
Additional Q & A



- Routine transportation of vaccines to different facilities is not generally recommended, however, there are times when this is necessary
- CDC recommends transporting COVID-19 vaccine in vials and always with a continuous temperature monitoring device to ensure adherence to authorized storage times and temperatures
- There may be instances when the only option is to transport vaccine in a predrawn syringe. CDC refers to the U.S. Pharmacopeia (USP) guidance for transporting predrawn vaccine in syringes on page 11 of the *USP COVID-19 Vaccine Toolkit: Operational Considerations for Healthcare Practitioners*. The complete document provides detailed guidance on COVID-19 vaccine transport and is available for download from this site: www.usp.org/covid-19/vaccine-handling-toolkit.

Can I
transport
vaccine in a
syringe?

Resources



COVID-19 Vaccine Quick Reference Guide

| COVID-19 Vaccine Quick Reference Guide for Healthcare Professionals | | COVID-19 Vaccine Quick Reference Guide for Healthcare Professionals | | |
|--|---|---|---|---|
| | Pfizer | Moderna | Janssen | |
| Route | Intramuscular (IM) injection | Intramuscular (IM) injection | | |
| Site | Deltoid | Deltoid | | |
| Thawing Frozen Vaccine | Between: 2°C and 8°C (36°F and 46°F) or Room temperature up to 25°C (77°F) Do NOT refreeze thawed vaccine. | Between: 2°C and 8°C (36°F and 46°F) or 8°C to 25°C (46°F to 77°F) Do NOT refreeze thawed vaccine. | | |
| Mixing Vaccine | Mix vaccine with 1.8 mL of 0.9% sodium chloride (preservative-free, normal saline) | Do NOT mix with any diluent | | |
| VACCINE ADMINISTRATION | Contraindications | | | |
| | <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of the vaccine Immediate allergic reaction† of any severity to a previous dose or known component of the vaccine <p>Note: Persons who have a contraindication to an mRNA COVID-19 vaccine (Pfizer or Moderna) may be able to receive the Janssen COVID-19 vaccine (see footnote).²</p> <p>Persons who have a contraindication to Janssen COVID-19 vaccine may be able to receive the mRNA COVID-19 vaccine (see footnote).²</p> | | | |
| Contraindications/Precautions | <p>Precautions</p> <ul style="list-style-type: none"> Most people determined to have a precaution to a COVID-19 vaccine at the time of administration. History of an immediate allergic reaction† to any other vaccine or injectable intravenous, or subcutaneous vaccines or therapies <ul style="list-style-type: none"> This includes people with a reaction to a vaccine or injectable therapy component, one of which is a vaccine component, but for whom it is unclear whether the reaction was due to the vaccine component or the other component that elicited the immediate allergic reaction. People with a contraindication to mRNA COVID-19 vaccines have a precaution to Janssen COVID-19 vaccine and vice versa. (see footnote).² Moderate to severe acute illness <p>See Interim Clinical Considerations for Use of mRNA COVID-19 Vaccines Current Version www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations</p> | | | |
| Post-Vaccination Observation | <p>30 minutes: Persons with a history of an immediate allergic reaction of any injectable therapy or a history of anaphylaxis (from any cause)</p> <p>15 minutes: All other persons</p> | | | |
| Most common adverse events | Injection site: pain, swelling, redness Systemic: fatigue, headache, muscle pain, chills, fever, joint pain | Injection site: pain, swelling, redness Systemic: fatigue, headache, muscle pain, chills, fever, nausea, joint pain | | |
| <p>The table below provides basic information on the proper storage, preparation, and administration of the currently authorized COVID-19 vaccine products in the United States. For additional information and detailed clinical guidance go to the manufacturer's and CDC's webpages listed.</p> | | | | |
| GENERAL | EUA | www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/pfizer-biontech-covid-19-vaccine | www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/moderna-covid-19-vaccine | www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/janssen-covid-19-vaccine |
| | CDC Vaccine Information | www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html | www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html | www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html |
| Manufacturer Contact information | Website: www.cvdvaccine.com Medical information: 800-438-1985 Customer service: 800-879-3477 | Website: www.modernatx.com Medical Information: 866-663-3762 | Website: www.vaxcheck.jnj.com Medical information: 1-800-565-4008 | |
| STORAGE & HANDLING | How supplied | Multidose vial: 6 doses | Multidose vial: Maximum of 11 doses Multidose vial: Maximum of 15 doses | Multidose vial: 5 doses |
| | Diluent | 0.9% sodium chloride (preservative-free, normal saline) provided in the ancillary kit. Do NOT use other diluent. | None | None |
| | Storage Temperatures: Before Puncture | Between: -80°C and -60°C (-112°F and -76°F) until the expiration date -25°C and -15°C (-13°F and 5°F) for up to 2 weeks 2°C and 8°C (36°F and 46°F) for up to 1 month (31 days). | Between: -50°C and -15°C (-58°F and 5°F) until the expiration date 2°C and 8°C (36°F and 46°F) for up to 30 days 8°C and 25°C (46°F and 77°F) for a total of 24 hours | Between: 2°C and 8°C (36°F and 46°F) until the expiration date. |
| | Storage Temperatures: After puncture | Between: 2°C to 25°C (36°F to 77°F) for up to 6 hours. Discard any unused vaccine after 6 hours. | Between: 2°C and 25°C (36°F and 77°F) for up to 12 hours. Discard any unused vaccine after 12 hours. | Between: 2°C and 8°C (36°F and 46°F) for up to 6 hours. 9°C and 25°C (47°F and 77°F) for up to 2 hours. Discard any unused vaccine after these time frames. |
| | Transport Temperatures: Before Puncture | Between: -80°C and -60°C (-112°F and -76°F) -25°C and -15°C (-13°F and 5°F) 2°C and 8°C (36°F and 46°F) | Between: -50°C and -15°C (-58°F and 5°F) 2°C and 8°C (36°F and 46°F) for up to 12 cumulative hours. | Between: 2°C and 8°C (36°F and 46°F) |
| | Transport Temperatures: After Puncture | Between: 2°C to 25°C (36°F to 77°F) for up to 6 hours. | Between: 2°C and 25°C (36°F and 77°F) for up to 12 hours. | Between: 2°C and 8°C (36°F and 46°F) for up to 6 hours |
| | Type of Vaccine | mRNA | mRNA | Viral vector |
| | Age Indications | 12 years of age and older | 18 years of age and older | 18 years of age and older |
| Schedule¹ | 2-doses, separated by 21 days. Both doses must be Pfizer-BioNTech vaccine | 2 doses, separated by 28 days. Both doses should be Moderna vaccine | 1 dose only | |
| Dosage | 0.3 mL | 0.5 mL | 0.5 mL | |

- General Information
- Storage & Handling
- Vaccine Administration

<https://www.cdc.gov/vaccines/covid-19/downloads/covid19-vaccine-quick-reference-guide-2pages.pdf>

¹For the purpose of this guidance, an immediate allergic reaction is defined as any hypersensitivity-related signs or symptoms, such as hives, difficulty breathing, or swelling of the face, lips, tongue, or throat.

²For the purpose of this guidance, a precaution is defined as any hypersensitivity-related signs or symptoms, such as hives, difficulty breathing, or swelling of the face, lips, tongue, or throat.

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05/2021

CDC Resources by Vaccine Product

Learn more with CDC's COVID-19 vaccine tools and resources. Find information for COVID-19 vaccination administration, storage, reporting, training and education

<https://www.cdc.gov/vaccines/covid-19/info-by-product/index.html>

U.S. COVID-19 Vaccine Product Information

Find a suite of information and materials that are needed for each specific COVID-19 vaccine that cover administration, storage and handling, safety, and reporting.

Pfizer-BioNTech

Moderna

Janssen/J&J

Requirements, Trainings, and Resources

Vaccine Storage and Handling Toolkit

COVID-19 Vaccine Quick Reference Guide for Healthcare Professionals 

Training and Education

COVID-19 Vaccine Quick Reference Guide for Healthcare Professionals Poster 

Provider Requirements and Support

FAQs for Healthcare Professionals

Pfizer-BioNTech COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F)

Lot number(s): _____

Today's date: ____/____/____ **USE BY*** _____

*As the 31 day deadline approaches, contact the manufacturer to be able to use the vaccine.

Vaccine may be transported for 12 calendar days

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Pfizer-BioNTech COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F)

Lot number(s): _____

Today's date: ____/____/____ **USE BY*** _____

*As the 31 day deadline approaches, contact the manufacturer to be able to use the vaccine.

Vaccine may be transported for 12 calendar days

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Pfizer-BioNTech COVID-19 Vaccine

Store vaccine between 2°C and 8°C (36°F and 46°F)

Lot number(s): _____

Today's date: ____/____/____ **USE BY*** _____

*As the 31 day deadline approaches, contact the manufacturer to be able to use the vaccine.

Vaccine may be transported for 12 calendar days

| | | | |
|--------------------|--|--|--|
| Transport date | | | |
| Time in transport: | | | |
| Time remaining: | | | |

Name: _____

Pfizer-BioNTech COVID-19 Vaccine

Ages: 12 years of age and older

Use for: Any dose in the 2-dose COVID-19 vaccines are NOT intended for use in children. Both doses should be COVID-19 vaccine.

Route: Intramuscular (IM) injection. **Prior to administration, mix vial with diluent (normal saline, preservative-free).**

Beyond Use Date/Time:
Freezer: Between -25°C and -13°C (-13°F to 5°F) for up to 2 weeks
Refrigerator: Between 2°C and 8°C (36°F and 46°F) for up to 31 days
Mixed vaccine: Use within 6 hours of mixing.

Pfizer-BioNTech COVID-19 Vaccine

Ages: 12 years of age and older

Use for: Any dose in the 2-dose COVID-19 vaccines are NOT intended for use in children. Both doses should be COVID-19 vaccine.

Route: Intramuscular (IM) injection. **Prior to administration, mix vial with diluent (normal saline, preservative-free).**

Beyond Use Date/Time:
Freezer: Between -25°C and -13°C (-13°F to 5°F) for up to 2 weeks
Refrigerator: Between 2°C and 8°C (36°F and 46°F) for up to 31 days
Mixed vaccine: Use within 6 hours of mixing.

Pfizer-BioNTech COVID-19 Vaccine

Ages: 12 years of age and older

Use for: Any dose in the 2-dose COVID-19 vaccines are NOT intended for use in children. Both doses should be COVID-19 vaccine.

Route: Intramuscular (IM) injection. **Prior to administration, mix vial with diluent (normal saline, preservative-free).**

Beyond Use Date/Time:
Freezer: Between -25°C and -13°C (-13°F to 5°F) for up to 2 weeks
Refrigerator: Between 2°C and 8°C (36°F and 46°F) for up to 31 days
Mixed vaccine: Use within 6 hours of mixing.

Prevaccination Screening for COVID-19 Vaccine

For vaccine recipients

The following questions will help you determine if you should not get the COVID-19 vaccine. **To any question, it does not necessarily mean you should not be vaccinated.** It just means additional information is needed. If a question is not clear, please ask your healthcare provider.

- Are you feeling sick today?
- Have you ever received a dose of COVID-19 vaccine?
 - If yes, which vaccine product did you receive?
 - Pfizer
 - Moderna
 - Did you bring your vaccination card to the appointment?
- Have you ever had an allergic reaction to any of the following?
 - A component of a COVID-19 vaccine
 - Polyethylene glycol (PEG), which is used in some COVID-19 vaccine preparations for colonoscopy
 - Polysorbate, which is found in some COVID-19 vaccines
 - A previous dose of COVID-19 vaccine
- Have you ever had an allergic reaction to any of the following?
 - This would include a severe allergic reaction that caused you to go to the hospital. It would also include wheezing.
- Check all that apply to you:
 - Am a female between ages 18 and 49
 - Had a severe allergic reaction to an environmental or oral medication
 - Had COVID-19 and was treated with corticosteroids
 - Diagnosed with Multisystem Inflammatory Syndrome in Children (MIS-C)
 - Have a weakened immune system
 - Take immunosuppressive drugs
 - Have a bleeding disorder
 - Take a blood thinner

Pfizer-BioNTech COVID-19 Vaccine
Vaccine Preparation and Administration Summary

General Information
 Vaccine: Pfizer-BioNTech COVID-19 Vaccine
 Diluent: 0.9% sodium chloride (normal saline, preservative-free) Use a new vial every time.
 Multidose vial: 6 doses per vial
 Dosage: 0.3 mL
Vaccine MUST be mixed with diluent before administration.

Age Indications
 12 years of age and older

Schedule
 2-dose series separated by 21 days
 A series started with Pfizer-BioNTech COVID-19 Vaccine should be completed with this product.

Administration
 Intramuscular (IM) injection in the deltoid muscle

Thawing Frozen Vaccine

- Frozen vaccine must be thawed before using.
- Thaw vaccine in the refrigerator or at room temperature:
 - Refrigerator:** Between 2°C and 8°C (36°F and 46°F) Unpunctured vials may be stored in the refrigerator for up to 1 month (31 days).
 - Room temperature (for immediate use):** Up to 25°C (77°F) Unpunctured vials cannot be kept at room temperature for more than 2 hours (including thaw time).
- Amount of time needed to thaw vaccine varies based on temperature and number of vials.
- Do NOT** refreeze thawed vaccine.
- Use vials in the refrigerator before removing vials from ultra-cold temperature or freezer storage.
- Use CDC's beyond-use date labels for this vaccine to track storage time at refrigerated and frozen temperatures.

Prepare the Vaccine

- Follow aseptic technique. Perform hand hygiene before vaccine preparation, between patients, when changing gloves (if worn), and any time hands become soiled.
- Remove vaccine from the freezer or refrigerator. Allow vaccine to come to room temperature. Vials can be held at room temperature for up to 2 hours before mixing.
- Before mixing, check the expiration dates of the vaccine and diluent. NEVER use expired vaccine or diluent. The expiration dates for the diluent and the vaccine are located on the respective vials.
- With the vaccine at room temperature, gently invert vial 10 times. **Do not shake the vial.** If the vial is shaken, contact the manufacturer. The vaccine is white to off-white in color and may contain opaque particles. Do not use if liquid is discolored.
- Using a new, sterile alcohol prep pad for each vial, wipe off the stoppers of the diluent and vaccine vials. Using a 21-gauge (or narrower) needle, **withdraw 1.8 mL** of 0.9% sodium chloride (normal saline, preservative-free) into the vaccine vial.

Inject 1.8 mL 0.9% sodium chloride (normal saline, preservative-free) diluent into the vaccine vial.

Using the mixing syringe, remove 1.8 mL of air from the vaccine vial to equalize the pressure in the vaccine vial.

Gently invert the vial containing vaccine and diluent 10 times. The vaccine will be off-white in color. Do not use if discolored or contains particulate matter. **Do not shake.** If the vial is shaken, contact the manufacturer.

Note the date and time the vaccine was mixed on the vial.

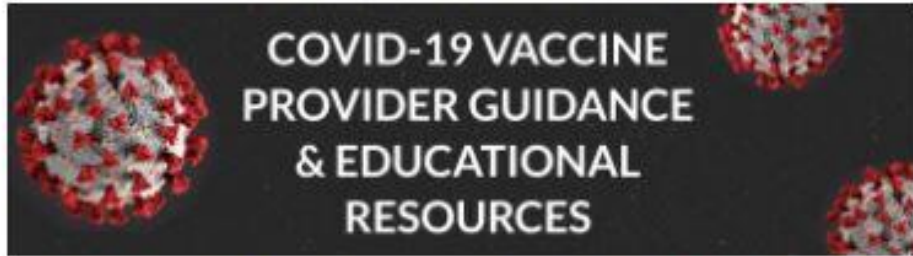
Keep mixed vaccine between 2°C and 25°C (36°F to 77°F), minimize exposure to room light, and avoid exposure to direct sunlight and ultraviolet light. Administer within 6 hours. **Do not use any unused vaccine after 6 hours.** Do not return to freezer storage.

Do not use if you have a fever, are feeling ill, or have any of the following symptoms: cough, sore throat, runny nose, nasal congestion, sneezing, or watery eyes. Do not use if you have any of the following symptoms: dizziness, lightheadedness, or fainting. Do not use if you have any of the following symptoms: hives, rash, or other allergic reactions. Do not use if you have any of the following symptoms: difficulty breathing, chest pain, or other respiratory symptoms. Do not use if you have any of the following symptoms: severe headache, dizziness, or other neurological symptoms. Do not use if you have any of the following symptoms: severe stomach pain, diarrhea, or other gastrointestinal symptoms. Do not use if you have any of the following symptoms: severe muscle pain, joint pain, or other musculoskeletal symptoms. Do not use if you have any of the following symptoms: severe fatigue, weakness, or other general symptoms.

- Preparation & Administration Summary
- Prevaccination Screening Checklist
- BUD Labels (Pfizer & Moderna)
- Storage and Handling Labels

<https://www.cdc.gov/vaccines/covid-19/info-by-product/index.html>

COVID-19 Vaccine Provider Guidance and Educational Resources



This webpage will house materials to support COVID-19 Vaccine Providers in successful implementation of the COVID-19 Vaccination Program. Be sure to "bookmark" this page and check back frequently for updates!

GENERAL COVID-19 VACCINE RESOURCES

[COVID-19 Vaccination Clinic Preparation Checklist & Resource Toolkit](#) - **NEW**

[MDHHS COVID-19 Vaccination Interim Prioritization Guidance](#)

[CDC COVID-19 Vaccine Resources for Healthcare Professionals](#)

- Vaccine administration, storage and handling, reporting, and patient education for each specific vaccine

[COVID-19 Vaccine Training Module](#)

- Self-paced module with certificate of completion (no CE)
- MDHHS strongly recommends that all COVID-19 Vaccine Providers complete this training.

[CDC HCP Vaccine Administration Resource Library](#)

CONTENT-SPECIFIC COVID-19 RESOURCES

[Webinars](#)

- [Upcoming Noontime Knowledge: Thursday May 20, 2021 at 12:00 pm](#)

[Enrollment](#)

[Redistribution](#)

[Vaccine Billing and Vaccine Code Sets](#)

[Product-Specific Information & EUAs](#)

[Pfizer](#)

[Moderna](#)

[Janssen \(Johnson & Johnson\)](#)

MDHHS
COVID-19 Provider
Guidance and Education Website
www.michigan.gov/covidvaccineprovider

CONTENT-SPECIFIC COVID-19 RESOURCES

Webinars

- Upcoming Noontime Knowledge: Thursday June 3, 2021 at 12:00 pm

Education Corner

Enrollment

Redistribution

Vaccine Billing and Vaccine Code Sets

Product-Specific Information & EUAs

Pfizer

Moderna

Janssen (Johnson & Johnson)

Email Archive

- 5/28/21: Expired/Expiring COVID-19 Vaccine Guidance
- 5/21/21: 14-day Interval for COVID-19 Vaccines Removed
- 5/14/21: MCIR (Review Prior to Administration, What to do for Lost COVID Cards, etc.)
- 4/23/21: Is there an interval to vaccinate after a positive COVID-19 test?

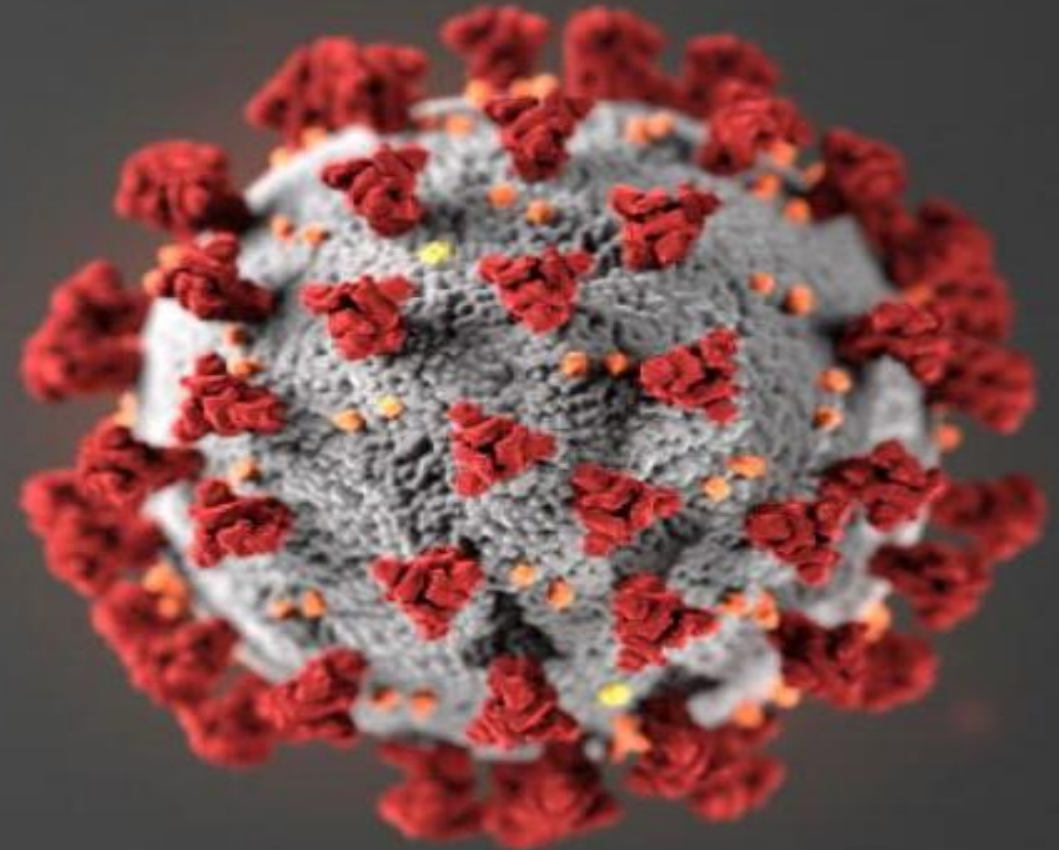
MDHHS COVID-19 Provider Guidance and Education Website

www.michigan.gov/covidvaccineprovider

Thank You!

Next “Noontime Knowledge”
Update: June 17, 2021, at
12:00p.m. Topic: TBD

Please watch your email for
an updated link and topic!



www.michigan.gov/COVIDvaccineprovider