

# Pfizer-BioNTech COVID-19 Vaccine

## Storage and Handling Summary



### » 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.
- Each thermal shipping container holds up to 5 trays of vaccine.
  - » Each tray contains 195 multidose vials (1,170 doses).
  - » A vaccine tray is approximately 9 in x 9 in x 1.5 in.
- 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:

1. Open the thermal shipping container. Press the stop shipment button on the temperature monitoring device for 5 seconds.
2. 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.
3. Proceed based on the color of the LED indicator light:  
**No color or red:** Wait for the status report.  
**Green:** Unpack the vaccine.
4. 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.

#### Dry Ice Safety

1. Dry ice is needed to maintain proper temperatures in the thermal shipping container.
2. Ensure staff has proper PPE and is trained to handle dry ice safely.
3. 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.

Each ancillary supply kit contains enough supplies to mix and administer 1 tray of vaccine.

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### » Thermal Shipping Container

CDC recommends providers consider using the thermal shipping container for **temporary storage** only. The container requires significant support to store vaccine at proper temperatures, including trained staff, a regular supply of dry ice, and standard operating procedures for regular maintenance.

Use the Controlant temperature monitoring device (TMD) included with the thermal shipping container to monitor the temperature.

- Review contact information.
  - » If the contact for your order (inVTrckS) is not valid, you will NOT be notified in the event of a temperature excursion. Contact your jurisdiction's immunization program for assistance.
  - » If your contact is valid and you are not receiving e-mails or cannot load email hyperlinks, refer to Controlant for troubleshooting (<https://in.controlant.com/onsitemonitoring>).
  - » Identify up to 4 contacts to receive e-mails and text alerts on the container's temperature status.
- Review **DAILY** e-mails on the status of the container.
- Click the link in daily e-mails to access and download all temperature data. Save the Excel file summarizing all temperature data for at least 3 years.
- Save the return shipping label provided in your shipping container at delivery. Use the shipping label to return the thermal shipping container with Controlant TMD after 30 days.

- Replenish dry ice pellets (10 mm to 16 mm) within 24 hours of delivery and every 5 days thereafter. Follow manufacturer's guidance for adding dry ice.
- Dry ice will be sent for the first re-icing unless you opt out when placing the vaccine order.
- Additional dry ice shipments will NOT be provided. Arrange for dry ice to maintain the temperature of the container after the first re-ice.

Removing vaccine vials/doses for use:

- Determine the number of vials needed before opening the thermal shipping container.
- Open the thermal shipping container no more than 2 times per day for up to 3 minutes each time. Use packaging tape to reseal the outer carton after each entry.
- Store vaccine vials upright in the tray and protect from light.

### » Ultra-Cold Freezer

Before mixing, the vaccine may be stored in an ultra-cold freezer between -80°C and -60°C (-112°F and -76°F).

- Store vaccine vials upright in the tray.
- Protect from light.
- Vaccine may be stored until the expiration date.
  - » As the expiration date approaches, contact the manufacturer to determine if it has been extended. Do not discard vaccine without ensuring the expiration date has passed.

### » Freezer

Before mixing, the vaccine may be stored in the freezer between -25°C and -15°C (-13°F to 5°F) for up to 2 weeks. The total time vials are stored at these temperatures should be tracked and should not exceed 2 weeks.

- These temperatures are within the appropriate range for routinely recommended vaccines, BUT the temperature range for this vaccine is tighter.
- If storing the vaccine in a freezer with routinely recommended vaccines, carefully adjust the freezer temperature to the correct temperature range for this vaccine.
- Use CDC's freezer storage temperature log for COVID-19 vaccine to document storage unit temperatures.
- Monitor how long the vaccine has been in the freezer using CDC's beyond-use date labels for Pfizer-BioNTech COVID-19 vaccine.
  - » Vaccine stored in the freezer can be transferred to refrigerator storage for an additional 120 hours (5 days).
- Store the vaccine in the tray.
- Protect from light.
- Do not use dry ice for freezer storage.
- Vials stored in the freezer may be returned one time to ultra-cold temperature storage (-80°C to -60°C [-112°F to -76°F]).
- Once returned to ultra-cold storage, the 2-week time frame is suspended.

**Pfizer-BioNTech COVID-19 Vaccine**

Store vaccine in the FREEZER between -25°C and -15°C (-13°F to 5°F) for up to 2 weeks.

Lot number(s): 123456A

Today's date: 12/14/2020 Time: 2:30 pm

**USE BY\***

Date: 12/28/2020 Time: 2:30 pm

\*If the 2-week deadline is met, move any remaining vials to refrigerated storage for an additional 120 hours (5 days). Use a refrigerator beyond-use date (BUD) label to reflect the new BUD time frame.

Name: Amy Nurse RN

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### » Refrigerator

Before mixing, the vaccine may be stored in the refrigerator between 2°C and 8°C (36°F and 46°F) for up to 120 hours (5 days). After 120 hours (5 days), contact the manufacturer for guidance. If directed to discard any remaining vials, follow the manufacturer's and your jurisdiction's guidance for proper disposal.

- Monitor how long the vaccine has been in the refrigerator using CDC's beyond-use date labels for Pfizer-BioNTech COVID-19 vaccine.
- Store the vaccine in the tray.
- Protect from light.
- Do NOT refreeze thawed vaccine.

### » Temperature Monitoring

**Ultra-cold freezer, freezer, refrigerator:** Storage unit temperatures must be monitored regularly, checked, and recorded at the beginning of the workday to determine if any temperature 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.

- Ultra-cold temperatures: Use a probe designed specifically to measure ultra-cold temperatures.
- Frozen and refrigerated storage: Use a probe buffered with glycol, glass beads, sand, or Teflon®.

Check and record the temperature daily using CDC's temperature log. Use one of the options below:

- **Option 1 (preferred): Minimum/Maximum (Min/Max) Temperature**  
Most DDLs display 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 at the start and end of the workday. Review the continuous DDL temperature data daily.

**Thermal Shipping Container:** Use the Controlant temperature monitoring device (TMD) included with the thermal shipping container to monitor the temperature. See thermal shipping container information above.

### » Diluent

0.9% sodium chloride (normal saline, preservative-free) diluent is included in the ancillary supply kits. Follow the manufacturer's guidance for storing the diluent.

### » Mixed Vaccine

- Once mixed, vaccine can be left at room temperature (2°C to 25°C [35°F to 77°F]) for up to 6 hours.
- Discard any remaining vaccine after 6 hours.
- Mixed vaccine should NOT be returned to freezer storage.
- Mixed vaccine does not need to be protected from light.

CDC's Pfizer-BioNTech COVID-19 Vaccine materials <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>

CDC's Vaccine Storage and Handling Toolkit <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>

CDC's Pfizer Beyond-Use Date (BUD) labels <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/bud-tracking-labels.pdf>

CDC's Delivery Checklist <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/delivery-checklist.pdf>

CDC's Freezer and Refrigerator Temperature Logs <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>