

# Storage & Handling

## Vaccine Transport Guide

### Understanding Vaccine Transport

**Transport, as described in this document, is defined as the following...**

- The movement of vaccine between providers or other locations over a short distance and time frame.
- The redistribution of doses to a satellite site, an off-site clinic.
- The movement of doses that are about to expire so they can be used rather than wasted.

For Emergency Transport guidance, see our [Vaccine Management Plan](#).

**Vaccine from your supply should not be routinely transported.** However, if you must transport vaccine for the purposes listed above, it is necessary to protect your vaccine supply. The guidance below will detail the precautions you must take to ensure that you **1) plan and prepare for the transport, 2) the tools you should have to transport vaccines, and 3) information on when not to transport vaccine.**

## 1. Plan & Prepare for Transport

*Follow these steps to ensure that the viability of your vaccine is protected during transport:*

- Identify trained staff to pack vaccines as well as primary and backup vehicles and drivers for transport in advance.
- Take an inventory of your vaccines and record actions to protect the vaccines during transport.
- Open unit doors only when necessary and only after completing all preparation for packing and moving vaccines.
- Only transport the vaccine in appropriate transport containers (outlined below) monitored by a continuous Digital Data Logger (DDL).
- Transport diluents with their corresponding vaccines so there are always equal amounts of vaccines and diluents for reconstitution. Follow the manufacturer's guidance for specific temperature requirements. If diluents stored at room temperature (20° C to 25° C [68° F to 77° F]) are going to be transported with refrigerated vaccines, they should be refrigerated in advance for as long as possible so they do not raise the container temperature when placed with refrigerated vaccines.
- If using a company or personal vehicle, only transport vaccines inside the passenger compartment (not in the trunk or bed of a truck, which may be too hot or too cold).
- Move transport containers directly to a vehicle that is already at a comfortable temperature, neither too hot nor too cold.
- **Avoid leaving containers in areas where they are exposed to direct sunlight.**
- Check vaccine temperature upon arrival at the alternative vaccine storage facility and store vaccines at recommended temperatures immediately.

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### 2. Tools For Vaccine Transportation

A Digital Data Logger (DDL), storage unit, and vaccine transport cooler manufacturers will often claim that they are verified by the CDC or especially suited for the storage of CDC provided vaccines. **The CDC does not independently assess or verify storage units or coolers.**

#### Transport Coolers

**Vaccine transported for off-site clinics, satellite facilities, or relocation of stock must be transported in a transport cooler.** Portable vaccine refrigerator, freezers, or a qualified container and pack out are all designed to maintain the manufacturer recommended temperatures.

*The same shipping materials the vaccines were initially shipped in should rarely, if ever, be used as they are not meant for reuse. **This could put the cold chain and, ultimately, the viability of the vaccine, at risk.***

The original shipping containers can ONLY be used for transport to satellite sites in specific situations for the COVID vaccines listed below:

- **Moderna vaccine** can be transported in the shipping container only on the day that it is received, provided the temperature monitoring device sent with the shipment is still active.
- **Janssen vaccine** can be transported in the shipping container only on the day that it is received, provided the temperature monitoring device sent with the shipment is still active.
- **Pfizer vaccine** can be transported in the shipping container, provided:
  - The temperature monitoring device sent with the shipment is still active
  - The shipper has been properly recharged within 24 hours of delivery and every 5 days after. [Full details can be found on the CDC website.](#)
  - Transport is one-way

*When you're looking into purchasing purpose-built coolers for the site, it's important to note these characteristics of the coolers you're considering:*

- How the cooling material is set-up (referred to as 'conditioning')
- The weight of the cooler and inserts
- Carrying capacity (volume available for vaccine storage)
- How long the cooler can maintain in range temperatures
- How the cooler closes (ie. Zipper, snap, Velcro, etc)

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Our program and other providers in Philadelphia have used these three brands of purpose-built coolers:

- [Acutemp](#)
- [Vericor](#)
- [MaxQ](#)
- [Pelican](#)

As you consider which cooler will best meet your site's needs, feel free to email the products that you're considering to [TempCheck@phila.gov](mailto:TempCheck@phila.gov) so that we can provide insight based on our experience and that of other providers. [To request one our coolers to transport vaccine, complete our transport cooler request form.](#)

## Temperature Monitoring During Transport with Digital Data Loggers

A Digital Data Logger (DDL) that meets the program and CDC requirements is required to monitor vaccine during transport. To be compliant each DDL must be accurate within  $\pm 1^{\circ}\text{F}$  ( $\pm 0.5^{\circ}\text{C}$ ) and have:

- A current and valid Certificate of Calibration (also known as a Report of Calibration)
- A probe that best reflects vaccine temperatures (e.g., a probe buffered with glycol, glass beads, sand, or Teflon®) placed in the center of the storage unit close to the vaccine
- A digital display that shows current, minimum, and maximum temperatures
- A low battery indicator
- A logging interval (or reading rate) that can be programmed by the user to measure and record temperatures every 10 minutes or less
- An audible alarm
- The ability to create a CSV file of temperature data

**All temperature data related to federally funded vaccines must be kept for a minimum of three years.**

## 3. When Not To Transport Vaccine

- **Transporting Opened Multidose Vials** If absolutely necessary, a partially used vial may be transported to or from an off-site/satellite facility operated by the same provider, as long as the cold chain is properly maintained. However, a partially used vial cannot be transferred from one provider to another or across state lines.
- **Never transport vaccines routinely** The decision to transport vaccine is made after serious consideration. Transporting vaccine is not done routinely. If you find yourself needing to transport vaccine routinely, then it is indicative of other issues relating to vaccine storage and handling. Please contact [tempcheck@phila.gov](mailto:tempcheck@phila.gov) for solutions that may help you troubleshoot any transport issues.