New York State COVID-19 Vaccine Program
Guidance for Vaccine Transport

Routine transport of vaccine is not recommended. Each transport increases the risk of exposing vaccine to inappropriate storage conditions, which compromises the viability of vaccines. However, in certain situations transporting vaccine may be necessary.

Any time vaccine is transported, return the completed Transport Tracking Form(s) (pages 4 of this document) to the NYS COVID-19 Vaccine Program via email at covid19vaccine@health.ny.gov

Each receiving location with storage capacity must be enrolled in the COVID-19 Vaccine Program and must follow all storage and handling requirements.

How should vaccine be transported?

1. **Portable vaccine refrigerator and freezer units** are considered the **best option** for vaccine transport. Portable vaccine refrigerator and freezer units are preferred because they use built-in temperature regulation, controlled by a thermostat, to maintain the temperature and do not require the use of pack out methods to maintain appropriate temperatures.
2. **Use a continuous temperature monitoring device** or digital data logger to monitor temperatures during transport.
3. **Qualified containers and pack outs** are tested under laboratory conditions and are acceptable to use for emergency or short-term vaccine transport, when portable vaccine refrigerator and freezer units are not available.
   A. Qualified containers do not have built-in temperature regulation to maintain temperature but are known to maintain appropriate temperatures when a qualified pack out method is also used.
   B. Polystyrene coolers or intact Styrofoam vaccine shipping containers are examples of qualified containers. Soft-sided or collapsible coolers are never acceptable.
   C. Qualified pack outs require specific supplies and packing procedures to minimize temperature excursions. Refer to the instructions in the ***CDC's: Packing Vaccines for Transport during Emergencies*** on pages 2 and 3.

Use of a **hard-sided insulated cooler**, may be used for short-term or emergency transport, when portable or qualified containers are not available.

4. **To transport refrigerated vaccine**:
   A. Temperatures during transport are to be maintained between 36ºF and 46ºF (2ºC and 8ºC).
   B. Properly maintained pack outs can hold appropriate temperatures for up to 8 hours if left undisturbed.

Resources

Centers for Disease Control (CDC), Packing Vaccines for Transport during Emergencies,
http://www.cdc.gov/vaccines/recs/storage/downloads/emergency-transport.pdf
Centers for Disease Control (CDC), Vaccine Storage and Handling Toolkit,
https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf
pages 21-24, 53-54

Packing Vaccines for Transport during Emergencies

Be ready BEFORE the emergency

Equipment failures, power outages, natural disasters—these and other emergency situations can compromise vaccine storage conditions and damage your vaccine supply. **It's critical to have an up-to-date emergency plan with steps you should take to protect your vaccine.** In any emergency event, activate your emergency plan immediately, and if you can do so safely, follow the emergency packing procedures for refrigerated vaccines.

1 Gather the Supplies

Hard-sided coolers or Styrofoam™ vaccine shipping containers

- Coolers should be large enough for your location's typical supply of refrigerated vaccines.
- Can use original shipping boxes from manufacturers if available.
- Do NOT use soft-sided collapsible coolers.

Conditioned frozen water bottles

- Use 16.9 oz. bottles for medium/large coolers or 8 oz. bottles for small coolers (enough for 2 layers inside cooler).
- Do NOT reuse coolant packs from original vaccine shipping container, as they increase risk of freezing vaccines.
- Freeze water bottles (can help regulate the temperature in your freezer).
- Before use, you must condition the frozen water bottles. Put them in a sink filled with several inches of cool or lukewarm water until you see a layer of water forming near the surface of bottle. The bottle is properly conditioned if ice block inside spins freely when rotated in your hand.

Insulating material — You will need two of each layer

- **Insulating cushioning material** – Bubble wrap, packing foam, or Styrofoam™ for a layer above and below the vaccines, at least 1 in thick. Make sure it covers the cardboard completely. Do NOT use packing peanuts or other loose material that might shift during transport.
- **Corrugated cardboard** – Two pieces cut to fit interior dimensions of cooler(s) to be placed between insulating cushioning material and conditioned frozen water bottles.

Temperature monitoring device – Digital data logger (DDL) with buffered probe. Accuracy of +/-1°F (+/-0.5°C) with a current and valid certificate of calibration testing. Pre-chill buffered probe for at least 5 hours in refrigerator. Temperature monitoring device currently stored in refrigerator can be used, as long as there is a device to measure temperatures for any remaining vaccines.

Why do you need cardboard, bubble wrap, and conditioned frozen water bottles?

Conditioned frozen water bottles and corrugated cardboard used along with one inch of insulating material such as bubble wrap keeps refrigerated vaccines at the right temperature and prevents them from freezing. **Reusing vaccine coolant packs from original vaccine shipping containers can freeze and damage refrigerated vaccines.**

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Visit www.cdc.gov/vaccines/SandH for more information, or your state health department.

Packing Vaccines for Transport during Emergencies

2 Pack for Transport

Conditioning frozen water bottles

- Put frozen water bottles in sink filled with several inches of cool or lukewarm water or under running tap water until you see a layer of water forming near surface of bottle.
- The bottle is properly conditioned if ice block inside spins freely when rotated in your hand.
- If ice "sticks," put bottle back in water for another minute.
- Dry each bottle.
- Line the bottom and top of cooler with a single layer of conditioned water bottles.
- Do NOT reuse coolant packs from original vaccine shipping container.

8. Temperature Monitoring Device Display (on lid)

Close lid – Close the lid and attach DDL display and temperature log to the top of the lid.

7. Conditioned Water Bottles

Conditioned frozen water bottles – Fill the remaining space in the cooler with an additional layer of conditioned frozen water bottles.

6. Cardboard Sheet

Insulating material – Another sheet of cardboard may be needed to support top layer of water bottles.

5. Bubble wrap, packing foam, or Styrofoam™

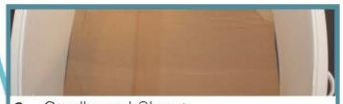
Insulating material – Cover vaccines with another 1 in. layer of bubble wrap, packing foam, or Styrofoam™

4. Vaccines, Diluents, and Temperature Monitoring Device Probe

Vaccines – Add remaining vaccines and diluents to cooler, covering DDL probe.
Temperature monitoring device – When cooler is halfway full, place DDL buffered probe in center of vaccines, but keep DDL display outside cooler until finished loading.
Vaccines – Stack boxes of vaccines and diluents on top of insulating material.

3. Bubble wrap, packing foam, or Styrofoam™

Insulating material – Place a layer of bubble wrap, packing foam, or Styrofoam™ on top (layer must be at least 1 in. thick and must cover cardboard completely).



2. Cardboard Sheet

Insulating material – Place 1 sheet of corrugated cardboard over water bottles to cover them completely.

1. Conditioned Water Bottles

Conditioned frozen water bottles – Line bottom of the cooler with a single layer of conditioned water bottles.

NOTE:
This packout can maintain appropriate temperatures for up to 8 hours, but the container should not be opened or closed repeatedly.

3 Arrive at Destination

Before opening cooler – Record date, time, temperature, and your initials on vaccine temperature log.

Storage – Transfer boxes of vaccines quickly to storage refrigerator.

Troubleshooting – If there has been a temperature excursion, contact vaccine manufacturer(s) and/or your immunization program before using vaccines. Label vaccines "Do Not Use" and store at appropriate temperatures until a determination can be made.

Refrigerated Vaccine Transport Tracking Sheet

Transport between 36° F and 46° F (or between 2^{O} C and 8° C)

Providers must **complete this document** to track transport of NYS COVID-19 vaccine.
Return the completed document to the COVID-19 Vaccine Program by email at covid19vaccine@health.ny.gov

Date of Transport:_____ Name of Provider Releasing Vaccine:_____ PIN_____

Temperature of *releasing* storage unit on day of transport: _____ ☐ C° ☐ F° Time placed in transport container:_____ ☐ AM ☐ PM

Vaccines to be transported (attach additional sheets if needed):

Vaccine	Lot #	Manufacturer	Expiration date	# of doses	Cold Chain Maintained (Y/N)	Comments

Name of Provider Receiving Vaccine (or alternate storage location):_____ PIN_____

Time arrived at receiving location:_____ ☐ AM ☐ PM Temperature of transport container upon arrival: _____ ☐ C° ☐ F°

Temperature of *receiving* storage unit:_____ ☐ C° ☐ F° Maximum temperature reached during transport:_____ ☐ C° ☐ F°