



## DOs

### STORAGE

Do use purpose-built or “pharmaceutical grade” refrigerators or freezers; if not available, can use stand-alone household units.

Do use a temperature monitoring device (TMD) called a digital data logger (DDL) with a current and valid Certificate of Calibration Testing. Do calibration testing every 2-3yrs.

Do check and record storage unit temperature readings (include min/max temperature, date, time, name of recorder, actions taken if excursion occurred) at least 2 times during the workday (at the start and end). Keep data for 3yrs to analyze long-term trends and recurring problems.

Do store vaccines in their original packaging until ready for use.  
*Rationale:* Reduces exposure to light and provides thermal protection/stability.

Do place water bottles on the top shelf, floor, and in the door racks of the storage unit. Label these water bottles “DO NOT DRINK.”

*Rationale:* Water bottles help stabilize temperatures due to frequent opening and closing of the storage unit or a power failure.

*Note:* Water bottles are not recommended for use with certain pharmaceutical-grade and purpose-built units (follow manufacturer’s guide).

Do store each type of vaccine or diluent in a separate container with the appropriate labels.

## DON'Ts

Don't use dormitory-style or bar-style combined refrigerator/freezer unit.

Don't use alcohol or mercury thermometers, bimetal stem TMDs, TMDs used for food, chart recorders, infrared TMDs, and other devices without a current and valid Certificate of Calibration Testing.

Don't leave vaccines in a storage unit that fails to maintain temperatures within the recommended range. Never allow vaccines to remain in a non-functioning unit for an extended period of time.

Don't store loose vials or manufacturer-filled syringes outside of their packaging.

*Rationale:* Increases risk of administration errors and vaccine exposure to light.

Don't place food or beverages in the same storage unit as the vaccines.

Don't store other medications and biologics in the same container or shelf with vaccines.

# VACCINE STORAGE AND HANDLING (Part 2 of 2)

DOs
<b>STORAGE</b> ( <i>continued</i> )
Do store vaccines and diluents in the center of the unit (approx. 2–3 inches away from walls, ceilings, floor, and door).
Do place vaccines and diluents with the earliest expiration dates in the front and those with later expiration dates in the back. Check expiration dates at least once a week and immediately remove expired ones.
Do arrange vaccines and diluents in rows and allow space between each row to promote air flow.
Do store diluent with the corresponding refrigerated vaccine, though some diluents can be stored at room temperature (no warmer than 25° C [77° F]).

DON'Ts
Don't store vaccines and diluents in areas of the unit that may not provide stable temperatures or adequate air flow (eg, directly under the cooling vents, in drawers, or shelves on the door).
Don't store vaccines and diluents with similar packaging or names or with both pediatric and adult formulations together on the same shelf.
Don't pack a storage unit too tightly.
Don't store any diluents in the freezer. Diluents should only be stored in either refrigerator or at room temperature.

TRANSPORT
Do deliver vaccines that will be used at an off-site facility directly to that facility. If not possible, use a portable vaccine storage unit or qualified container and packout with a DDL. <i>Important:</i> Total time for transport alone or transport plus clinic workday should <b>NOT</b> exceed 8hrs.
Do rent a refrigerated truck if transporting large quantity of vaccines or for an extended distance.
Do refrigerate diluents normally stored at room temperature in advance if they will be transported with refrigerated vaccines. <i>Rationale:</i> Prevents raising the container temperature when placed with refrigerated vaccines.
Do transfer the transported vaccines to an appropriate storage unit <b>IMMEDIATELY</b> upon arrival. Check and record the temperature of the storage unit at least 2 times during the workday.

Don't use frozen gel packs or coolant packs from original vaccine shipments to pack refrigerated vaccines. Don't use dry ice. In emergency situations, conditioned water bottles can be used.
Don't use the trunk or bed of a truck of a non-commercial vehicle for the transport of vaccines. Use the passenger compartment instead. Don't expose to direct sunlight.
Don't freeze diluents during transport.
Don't discard of any vaccines or diluents that you suspect may have been exposed to inappropriate temperatures or conditions. Contact the vaccine manufacturer(s) for guidance. In the meantime, store them in appropriate refrigerated conditions (apart from other vaccines) and label "DO NOT USE".

PREPARATION
Do prepare vaccines in a designated area away from potentially contaminated items.
Do check expiration dates and dosages to ensure medication safety.
Do use only the diluent supplied with the vaccine for reconstitution.
Do draw up vaccines only at the time of administration.

Don't prepare vaccines unless you are ready to administer them to patients.
Don't administer vaccines unless you have prepared them yourself.
Don't use a stock vial of sterile water or normal saline to reconstitute vaccines.
Don't transfer predrawn reconstituted vaccines back into their vials for storage.

NOTES
*Protect from light: Varivax, ProQuad, M-M-R II, Hibberix, Gardasil 9, Afluria, FLUAD, Fluarix, Flublok, Flucelvax, FluLaval, Fluvirin, FluMist, IPOL, Menveo, Bexsero, Rotarix, RotaTeq, Shingrix.
† The lyophilized pellet may be stored in the freezer; the reconstituted vaccine should be stored in the refrigerator.

REFERENCES
Centers for Disease Control and Prevention. Vaccine Storage & Handling Toolkit. <a href="https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf">https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf</a> . Published January 2020. Updated April 12, 2022. Accessed May 19, 2022.
Centers for Disease Control and Prevention. Storage and Handling of Immunobiologics. General Best Practice Guidelines for Immunization: Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP). <a href="https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/storage.html">https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/storage.html</a> . Accessed May 19, 2022.

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