

2025 Oregon Vaccine Refrigerator & Freezer Guide



Current Requirements

for Vaccines for Children program (VFC) & Vaccine Access Program (VAP)

Choosing a vaccine storage unit

The U.S. Center for Disease Control and Prevention (CDC) and the Oregon Immunization Program (OIP) recommend **separate, biomedical-grade units**. We do **NOT** recommend a household combination unit.

Note: Providers enrolled after July 1, 2024, will not be allowed to use the freezer compartment of a household combination unit. Dorm-style units are not allowed for ANY type of vaccine storage.

CDC & OIP vaccine storage requirements

Any vaccine storage unit carrying VFC/VAP vaccine must meet these requirements:

- The unit must be able to keep required vaccine storage temperatures:
 - Refrigerator: 2°– 8° Celsius (36° – 46° Fahrenheit).
 - Freezer: -50° to -15° Celsius (-58° to 5° Fahrenheit).
- The unit must be big enough to store the year's largest inventory while keeping the proper temperatures.
 - This includes seasonal vaccines like flu and RSV.

- The unit must have enough room to store water bottles. Water bottles keep temperatures stable. This prevents out-of-range temperatures that can impact vaccine potency.
 - Use water bottles in commercial or household refrigerators.
 - Use frozen water bottles in commercial or household freezers.
- The unit must have a centrally located, digital data logger with a buffered probe.
- The unit must be dedicated to storage of vaccines (and other pharmaceuticals only as necessary).
- Food and beverages must **NOT** be stored in a vaccine storage unit. This practice results in opening the door too often, which destabilizes temperatures.

Dorm-style units are not allowed

Small, single-door combined units should never be used for vaccine storage. Why?

- The freezer compartment can't hold the right temperatures for varicella and zoster vaccines.
- Cold air from the freezer vents down into the main compartment, causing unstable refrigerator temperatures.



Household combination unit are not recommended



Upgrade or get a countertop freezer

Using a household combination refrigerator/freezer? We strongly recommend you upgrade to a biomedical-grade unit.

If an upgrade isn't possible, consider getting a separate countertop freezer. Then only use the refrigerator section of the household refrigerator.

Why we don't recommend household combination units

Studies show that household combination units are less capable of maintaining proper storage temperatures. This goes for both the refrigerator and freezer compartments. Unstable temperatures happen because cold air from the freezer blows directly into the refrigerator compartment.

By far, the best practice is to choose a separate refrigerator and freezer built for the purpose of storing vaccines.

Enrolled before July 1, 2024?

If you were:

1. Enrolled with a household combination unit before July 1, 2024, and
2. Using both compartments, and
3. Consistently maintaining the required temperature ranges,

Then you may continue to use that unit.

BUT, if out-of-range temperatures happen that aren't due to another cause (like a power outage), you will have to discontinue use. Even if it requires the purchase of a separate freezer unit.

Any providers enrolled after July 1, 2024, will not be allowed to use the freezer compartment of a household combination unit.

Water bottles

The CDC recommends placing water bottles (in refrigerators) or frozen water bottles (in freezers) throughout each storage unit to:

1. Keep temperatures stable, including during a power outage, and

2. Prevent staff from putting vaccines in areas at higher risk of out-of-range temperatures. Higher-risk areas include doors, vegetable bins, on the floor, and near/under cooling vents.

NOTE: Not all manufacturers recommend using water bottles in their units. Before adding water bottles, check with your manufacturer.

Built-in digital data loggers

Some refrigerator and freezer units include built-in digital loggers. Unless these loggers meet VFC requirements, they **should not be used for vaccine monitoring**.

All official temperature readings must **only** be taken from your VFC-approved, calibrated digital data logger/backup logger.

Choosing the right size storage unit

You need to have enough room to store your current stock as well as any extra peak-season stock without overcrowding. You can work with the supplier to determine the best fit for your clinic.

Choosing the right location

Proper placement of your refrigerator and freezer impacts how well they work and how long they last. Poor airflow and high temperatures will cause even the best units to overheat and fail. Pay close attention to manufacturer ventilation guidelines when deciding where to put your units.

Note: As a state agency, we cannot endorse or recommend any specific brand or product. The terms and conditions of your purchase are between you and your vendor.

Equipment Options

With the above guidelines in mind, we have compiled a short list of equipment options that meet or exceed Oregon VFC/VAP and CDC requirements. The list covers a range of price points and configurations to fit any clinic's size or budget.

This guide is far from exhaustive and is only meant as an overview of the *types* of storage units to consider during your search. None of the examples listed are recommended by OIP. They are only meant to help begin your search.

As always, OIP is here to help. Don't hesitate to contact our VFC/VAP Help Desk at 1-800-980-9431 or afc.help@odhsosha.oregon.gov with any questions.

Used and refurbished equipment

There are several used and remanufactured equipment vendors online. Prices are often 30-50% off retail. Also consider calling your manufacture of choice and asking about less expensive used units. Helmer, for example, has an inventory of scratch and dent units that come with a much lower price tag and a full warranty.

As with any large purchase, only buy from reputable vendors and get all guarantees in writing.

Manufacturers to consider:

- **Ace Laboratory Systems:** www.ancelabsystems.com
- **Lab X:** www.labx.com
- **Labequip:** www.labequip.com

Under-counter refrigerators and freezers



Under-counter refrigerators and freezers are a great choice for clinics with limited space. Benefits of under-counter units include:

- **Lower risk:** Separate compressors and condensers decrease the risk of a total vaccine loss that might occur in a single combined unit.
- **Flexibility:** Small and easy to relocate, under-counter units can be positioned in multiple ways depending on the need.
- **No cold air vent:** Traditional combined units use a cold air vent to blow frozen air into the refrigerator compartment. Separate units mean separate compressors and no need for cold air venting.
- **Cost effective:** If you are looking to add refrigerator or freezer capacity, this option allows you to buy only what is needed.

Manufacturers to consider:

- **Migali Scientific:** Glass Door Under-Counter Refrigerator.
www.migaliscientific.com/product/4-3-cuft-glass-door-pharmacy-refrigerator/?cat=vaccine-storage
- **Helmer Scientific:** Under-Counter Pharmacy Refrigerator and Freezers.
<https://www.helmerinc.com/search>
- **Follett:** Compact Refrigerators and Freezers.
<https://www.follettice.com/healthcare/compact-refrigerators>

Full-size, stand-alone refrigerators and freezers



Biomedical-grade refrigerators and freezers are the best, most secure option for vaccine storage. They are also the most expensive. However, many of the biomedical-grade manufacturers produce refrigerators and freezers in an array of sizes and price points.

Manufacturers to consider:

- **PHCbi:** Large capacity pharmaceutical refrigerators, freezers, ultra-low freezers, and undercounter refrigerators and freezers.
<https://www.phchd.com/us/biomedical/preservation>
- **Magali Scientific:** Vaccine storage.
<https://www.migaliscientific.com/products/vaccine-storage>
- **Helmer Scientific:** Vaccine storage. <https://www.helmerinc.com/product-types/vaccine-storage>
- **Follett Healthcare:** Medical-grade refrigerators and freezers.
<https://www.follettice.com/products/healthcare>
- **TempArmour Refrigeration:** Vaccine storage.
<https://www.temparmour.com/>

Full-size, combined refrigerator-freezers

While they may look like household combination units, biomedical-grade combination units are far superior for vaccine storage in several important ways:

- Separate refrigeration systems for the refrigerator and freezer.
- Improved cabinet insulation to avoid hot and cold spots.
- Built-in, digital temperature display.
- Built to industrial standards and warranted for industrial use.
- Fan-forced air circulation delivers quick temperature recovery.



Biomedical-grade, combination units are ideal for clinics wanting a best-practice storage solution in a compact package.

Manufacturers to consider:

- **PHCbi:** Pharmaceutical refrigerator with freezer.
<https://www.phchd.com/apac/biomedical/preservation/pharmaceutical-refrigerators/pharmaceutical-refrigerators-with-freezer/mpr-414f>
- **Fisher Scientific:** Combination refrigerator freezers.
<https://www.fishersci.com/us/en/browse/90106015/combination-refrigerator-freezers>

Ultra-low temperature freezer

Some vaccine requires ultra-low temperature for storage. If you are considering a unit that holds ultra cold temperatures, look for a unit with these specifications:

- Digital temperature display,
- Microprocessor control,
- Audible alarms, and
- Ability to hold ultra-low (-80 to -60°C) temperatures.

Manufacturers to consider:

- **ABS (American Biotech Supply):** 17 Cu Ft Ultra-Low Freezer.
<https://americanbiotechsupply.com/freezers/freezer-products/ultra-low-temperature-freezers/standard-ultra-low-temp-freezers/17-cu.-ft.-ultra-low-temperature-freezer>
- **PHCbi:** Twinguard ULT Freezer.
<https://www.phchd.com/global/biomedical/preservation/ultra-low-freezers/TwinGuard-ULT-freezers/mdf-u500vx>

Doorless/vending-style unit

These vaccine refrigerators dispense vaccine without you having to open the door.

Manufactures to consider:

- **TruMed:** AccuVax Vaccine management system; integrated fridge and freezer unit. <https://trumedsystems.com/products/accuvax>

Additional Equipment/Information

Additional equipment, add-ons, and services you might consider:

Portable cold storage

These are excellent options for emergency storage, long distance transport, or use during day clinics in the field.

Some units use electricity to run a cooling system. Others use advanced insulation and with propriety cooling packs/phase change panels. (Make sure you have enough room to store these packs/panels in your units. Some can be quite large).

- **Vericor:** Portable Cool Cube transport system. www.vericormed.com/cool-cube-vaccine-transport-coolers
- **TempArmour:** Portable vaccine carrier. https://www.temparmour.com/vaccine_carrier
- **FridgeFreeze:** Portable vaccine refrigerators and freezers. www.fridgefreeze.com
- **CSafe:** Bio-medical refrigerator and freezer carriers. <https://csafeglobal.com/specialty-solutions/>
- **Roemer Industries:** Customizable, portable medical refrigerator and freezers. www.roemerindustries.com



Emergency battery backup

Other than a generator, one of the best ways to buy time during an emergency is a battery back-up. Ideally, you would use these in combination with an alarm system to add hours to your response window.



- **Medi+Products:** Vaccine refrigerator battery back-up.
<http://www.mediproducts.net/products-refrigeration/>
- **Xantrex PowerHub 1800:** <http://www.xantrex.com/power-products/backup-power/xpower-powerhub-1800.aspx>
- **Goal Zero Yeti 1500x Lithium Portable Power Station:**
<https://www.goalzero.com/collections/portable-power-stations/products/goal-zero-yeti-1500x-portable-power-station>
- **EATON 9PX UPS:** <https://eaton-upssystems.com/eaton-9px-ups/>

Biomedical-grade equipment repair

If your refrigerator or freezer malfunctions, call your manufacturer to check on warranty status. The manufacturer should have a list of local repair shops that can work on your equipment. If now, below is a list of repair companies that might be able to do repairs. (**Note: this is not an exhaustive list.**)

Portland Metro:

- **Commercial Refrigeration Inc**
503-234-6445
www.cri-pdx.com
- **PermaCold Engineering, Inc.**

503-249-8190

<http://www.permacold.com/>

- **Dial Service Co.**

503-777-4011

www.dialrefrigeration.com/index.html

Oregon Coast:

- **Wilde Refrigeration Inc.**

541-265-3255

<https://www.hmicontracting.net/company/wilde-refrigeration-inc-5412653255>

Salem:

- **West Coast Mechanical**

503-315-2277

<https://www.westcoast-mc.com/refrigeration>