



Guidance for Purchasing of New Vaccine Storage Unit



Step One: Select appropriate vaccine storage unit for specific vaccines (refrigerated or frozen).

- Ensure that the vaccine unit will reach the specific temperatures to safely store vaccines.
- Refrigerators and freezers typically used for vaccine storage are available in different grades (household and purpose-built) and types (stand-alone and combination refrigerator/freezer)

CDC Recommendations-Vaccine Storage Units:

- Purpose-built or pharmaceutical/medical-grade units, including doorless and vending-style units
- Stand-alone refrigerator and freezer units—these units can vary in size from a compact, under-the-counter style to a large, stand-alone, pharmaceutical-grade storage unit
- Combination household refrigerator/freezer unit, using only the refrigerator compartment to store vaccines—a separate stand-alone freezer should then be used to store frozen vaccines.*

Step Two: Install and set up unit per manufacturer guidance at provider site upon unit's arrival

- Appropriate setup of vaccine storage units is critical

External Factors for Unit Set Up

- Ensure good air circulation around the outside of the storage unit
- Well ventilated room
- Leave space between unit, ceiling, and any wall
- Do not block the cover of the motor compartment of unit
- Unit should be firm and level, with bottom of the unit above the floor
- Unit door are to open and close smoothly and fits squarely against the body of the unit.
- Unit works best within a indoor room at temps. are 20°C and 25°C (68°F and 77°F)
- Ensure unit is plugged into an electrical outlet in wall
 - (No outlets that can be tripped or switched off i.e. built in circuit switches (with reset buttons, power- strips, or outlets activated by wall switch)
- Mark electrical outlet “DO NOT UNPLUG” (contact Imz. Division for signage)

Internal Factors for Unit Set Up – See below vaccine unit set up guides.

Step Three: Begin monitoring temperatures with a Continuous Temperature Monitoring Device also known as a Digital Data Logger (DDL) that has a current and valid Certificate of Calibration and Testing.

- Install digital data logger per the manufacturer guidance for set up
- Review any training video or resources
- Install digital data logger buffered probe into the vaccine storage unit to allow it to adjust to temperature of the unit (30 minutes to 60 minutes)



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Digital Data Logger Temperature Monitoring Settings

- Set temperature setting to Celsius
- Set the logging intervals to record every 15 minutes
- Set Lo/Hi temperature alarm limits for vaccines refrigerators and freezers (if DDL will not set at -50.1 °C set it to lowest temperature allowable for freezer)

Settings	Refrigerator	Freezer
LO	1.9°C	-50.1°C
HI	8.1°C	-14.9°C

- Alarms must be set to trigger at the 2nd consecutive 15-minute logging

Step Four: Send following documentation to the Immunization Division Provider Operations Unit by via SIMON Helpdesk or email scvfc@dph.sc.gov.

This information must be received prior to vaccine ordering privileges being approved.


- VFC Providers must have two (2) to five (5) consecutive days of *in-range temperatures documented and provided to the VFC program prior to storing vaccines in a new vaccine storage unit.
 - *In range temperature for refrigerator must be between 2°C and 8°C (36°F and 46°F), for refrigerator with an average temperature of 5°C (41°F).
 - *In range temperature for the freezer must be -50°C and -15°C (-58°F and +5°F)
- Documentation of temperatures must be provided on the appropriate DHEC temperature logs prior to enrollment site visit
 - [DHEC 3265--South Carolina Freezer Temperature Log - Celsius for Vaccine Storage Units](#)
 - [DHEC 3266 -South Carolina Refrigerator Temperature Log - Celsius for Vaccine Storage Units](#)
- Regional Site Reviewer will assist the provider with uploading temperature data into SIMON

Resource and Reference

1. CDC’s Vaccine Storage and Handling Toolkit <https://www.cdc.gov/vaccines/hcp/downloads/storage-handling-toolkit.pdf>
2. All information must be entered into SIMON for VFC program approval and prior to vaccine ordering.

Preparing Refrigerators for Vaccine Storage

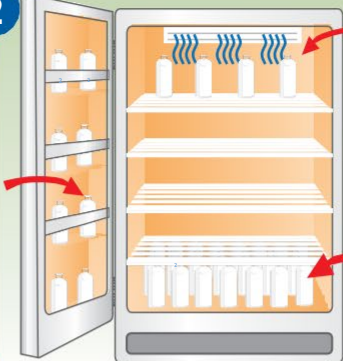
1




Remove all drawers and bins.

Vaccine should not be stored in refrigerator doors, drawers, or bins.


2



Fill the refrigerator floor with water bottles. Put water bottles in the door, on the top shelf (underneath the cold air vent). Do not block air vents.


 Skip this step if you have a Pharmaceutical grade unit.

3




You'll need to set up and get familiar with your data logger before using to monitor temperatures.

Have a back-up data logger handy in case there's a problem with the one in the refrigerator.



Place the buffered probe in the center of the refrigerator near the vaccines.

4

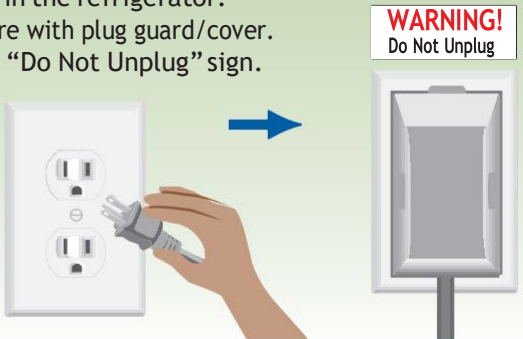


Attach the digital display to the outside of the refrigerator, either on the door or on the side.

CURRENT, MIN and MAX temperatures must be visible without opening the storage unit door.


5

Plug in the refrigerator. Secure with plug guard/cover. Post "Do Not Unplug" sign.



WARNING!
Do Not Unplug

6



Set the refrigerator temperature.

If the refrigerator has a thermostat, set it at 5°C or 40°F.

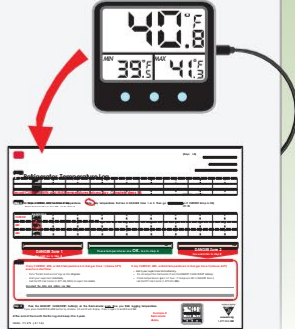
If it has a dial with a range of settings, set it to the middle of the range.

The next morning, check the temperature and adjust it until it stabilizes at approximately 5°C or 40°F.

7

Once the temperature has stabilized, record CURRENT, MIN, temperatures on the log twice a day.

Do not store vaccine in the refrigerator until the temperature is stable at around 5°C or 40°F for 2-5 days.

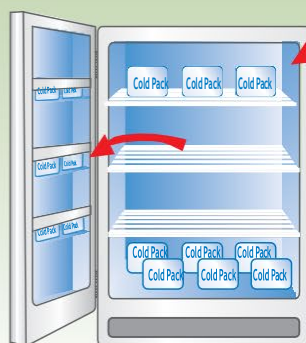


Preparing Freezers for Vaccine Storage

1

In an upright freezer, put a few cold packs in areas where vaccine cannot be stored, like the door, top shelf, and floor.

In a chest freezer, put a few cold packs in the basket at the top or on the floor.



Upright freezer

Cold Pack

Skip this step if you have a Pharmaceutical grade unit.



Chest freezer

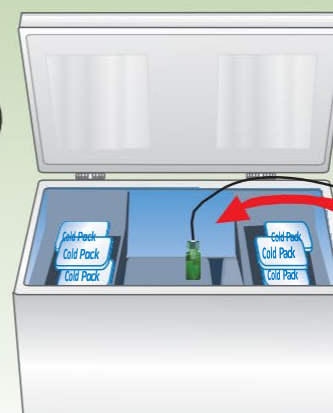
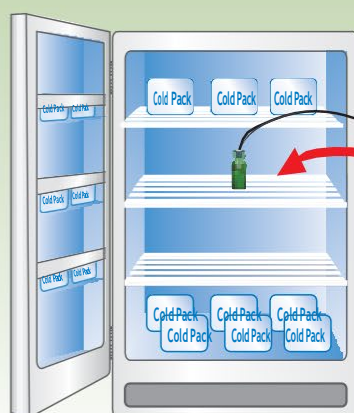
Cold Pack

2

You'll need to set up and get familiar with your data logger before using it to monitor temperatures.

Have a back-up data logger handy in case there's a problem with the one in the freezer.

Place the buffered probe in the center of the freezer near vaccines.



3

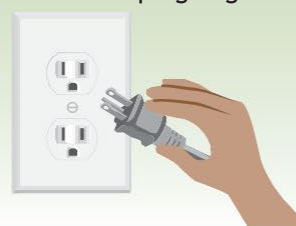
Attach the digital display to the outside of the freezer, either on the door or on the side.

CURRENT, MIN, and MAX temperatures must be visible without opening the storage unit door.



4

Plug in the freezer. Secure with plug guard/cover. Post "Do Not Unplug" sign.



WARNING!
Do Not Unplug

5



If the freezer has a thermostat, set it below -15°C or 0°F .
If it has a dial with a range of settings, set it to the coldest. Check the temperature the next morning. Adjust the thermostat until the temperature stabilizes below -15°C or 0°F .

6

Once the temperature has stabilized, record CURRENT, MIN and MAX, temperatures on the log twice a day. Do not store vaccine in the freezer until the temperature stays below -15°C or 0°F for 3-5 days.

