

# GUIDELINES FOR BUYING A REFRIGERATOR OR FREEZER

# VACCINES FOR CHILDREN

A Vaccines for Children (VFC) vaccine storage equipment requirement began April 1, 2009. This requirement has helped ensure that VFC-supplied vaccines are properly stored and managed. It has also ensured that enough usable space is available to store the increased number of recommended vaccines.

All providers must comply with required specifications and requirements in order to receive VFC vaccines. The type of refrigerator/freezer needed is based on:

1. the number of vaccine doses the practice orders in a year (*below*)
2. the maximum amount of vaccine stored (*see back*)

**Did you know an average Vaccines for Children (VFC) provider stores tens of thousands of dollars worth of vaccines?**

**Not having the correct refrigerator or freezer may lead to costly vaccine losses or worse, inadvertently giving non-viable vaccines to your patients!**

Doses/Year	Required Equipment
Very high volume (10,000 doses/year)	Pharmacy-grade stand-alone refrigerator and stand-alone freezer units
High volume (2,000-10,000 doses/year)	Stand-alone refrigerator (16.7 cu. ft. minimum) and stand-alone freezer units
Medium volume* (500-2,000 doses/year)	Stand-alone refrigerator (16.7 cu. ft. minimum) and stand-alone freezer units
Low volume* (under 500 doses/year)	Stand-alone refrigerator (16.7 cu. ft. minimum) and stand-alone freezer units or under the counter pharmacy-grade stand-alone refrigerator and stand-alone freezer units

### All refrigerator units must:

- Maintain required vaccine storage temperatures at 35-46°F (2-8°C) year-round.
- Be automatic defrost (frost-free) and free of any frost, ice, water or coolant leaks. Manual defrost (cyclic defrost) refrigerators with visible cooling plates/coiling in the internal back wall are not acceptable.
- Provide enough space to store the largest number of doses expected at one time (including influenza season), allowing for vaccine storage at least 2-3 inches away from walls, floor and other boxes, and away from cold air vents.
- Be reliable (with a quiet compressor) and has not needed frequent repairs. Replacement should be considered for household refrigerator/freezer combination units over 10 years old.
- Have doors that seal tightly and close properly.
- Have separate temperature controls for refrigerator and freezer if combination units.
- Not have convertible features that switch to an all-freezer unit.
- Have a working thermometer placed centrally in the unit. Thermometers must be certified in accordance with National Institute of Standards and Technology.
- Be used only for vaccine storage. In limited circumstances, and as space allows, other medications may be stored in the same units.

### All freezer units must:

- Maintain required vaccine storage temperatures at 5°F or below (<-15°C) year-round.
- Provide enough space to store vaccines along with sufficient frozen cold packs.
- Have an automatic defroster. (Manual defrosters are acceptable only if the office has an alternate place to store vaccines when defrosting the unit.)

\*Providers enrolled prior to April 2009 are required to obtain stand-alone refrigerator units when household style units malfunction and/or need replaced.

**Note:** The use of trade names and commercial sources in this document is for identification only, and does not imply endorsement by the Missouri Department of Health and Senior Services. Compare products to the requirements shown here before purchase, as product availability and features may change.

Cont. on back

# 3 EASY STEPS

## THINGS TO THINK ABOUT BEFORE BUYING

- Contact the Vaccines for Children program prior to buying to assure appropriate equipment is purchased.
- Where will it go?
  - It must be placed away from direct sunlight and in a well ventilated area.
  - There must be enough space around it to allow air to flow freely.
  - There must be an electric outlet nearby that can be used only by the refrigerator or freezer and does not depend on the light switch. (Extension cords shall not be used.)
- What is the warranty and extended service option?
- Will the store dispose of or recycle your old unit?
- Is there an energy rebate?
- How long will it take for the delivery?

## GETTING STARTED

- Plug in the refrigerator or freezer (one unit per outlet).
- Place thermometers or probes in the center of unit.
- Set temperatures to recommended ranges:  
Freezer: 5°F (-15°C)  
Refrigerator: 40-42°F (5°C)
- Record temperatures twice a day on your vaccine Temperature Log.
- Submit one week (5-days) of temperature readings to the VFC program prior to validation visit from the Immunization Quality Manager.
- Review the storage guidelines at [health.mo.gov/immunizations/vfc-providers](http://health.mo.gov/immunizations/vfc-providers)

- Estimate the maximum number of doses of VFC vaccine and privately purchased vaccine that will be stored in the refrigerator and freezer.

Refrigerator	
Add the number of doses on hand (current inventory) from your last order form.	
VFC vaccine	_____
VFC flu vaccine	+ _____
Private vaccine	+ _____
Private flu vaccine	+ _____
Total doses	= _____
Multiply (max inventory)	<b>x 1.25</b>
<b>Maximum doses</b>	= _____

Freezer	
Add the number of doses on hand (current inventory) from your last order form.	
VFC MMR & Varicella vaccine	_____
Private MMR & Varicella vaccine	+ _____
Total doses	= _____
Multiply (max inventory)	<b>x 1.25</b>
<b>Maximum doses</b>	= _____

- Match your maximum doses with the minimum cubic feet (needed to safely store your vaccine) to find product example. \*Indicates pharmacy grade. (This list is not inclusive. Other brands or models may be acceptable.)

Max. Doses	Minimum Cubic Ft.	Examples of Stand-alone Refrigerator units
2,000+ doses	May need more than one refrigerator	See below
1000 – 2000	40 cu. ft.	Revco REL-4504A; REL-4504D* Nor-Lake NSPR482*
900 – 1000	36 cu. ft.	Sanyo SPR-49GD-MED* Sanyo MPR-1013; MPR-1013R* Turbo Air GST-40DR*
801 - 900	21 - 23 cu. ft.	Aegis Scientific 1-R-22*; Helmer iPR125* Sanyo SRR-23FD; SRR-23GD; SRR-23FD*
701 - 800	17 - 20 cu. ft.	Aegis Scientific 3-CR-17*; Helmer iPR120* Frigidaire FCGM201RF; FCRS201RFB Marvel Scientific 17CAR
400 – 700	16.7 cu. ft.	Avanti BCAD680 Nor-Lake LR161WWW/0* Kenmore 6072 Frigidaire FRU17B2J; FRU17B2JW*
100 - 399	4.9 - 6.1 cu. ft. (Must be pharmacy grade)	Sanyo SR-L4110W; SF-L6111W; MPR-214F* Nor-Lake LRO61WWW/0; NSLR051WMW/0* Revco REL-404A*
Max. Doses	Minimum Cubic Ft.	Examples of Stand-alone Freezer units
501 – 6,000	7 - 14.8 cu. ft	Arctic Air CF07 Whirlpool EH150FXR; EH151FXRQ Frigidaire AFFC1466DW
201 - 500	5 - 5.6 cu. ft.	Revco ULT-430A*; GE FCM5SUWW Frigidaire FFC0522DW; Kenmore 18502
0 - 200	1.5 - 4.9 cu. ft.	Nor-Lake LF041WWW/OM* Edgestar CMF 151L

- Search for product name and model numbers on the Internet for prices, dimensions and locations. Verify with the VFC liaison that the specifications meet all requirements.