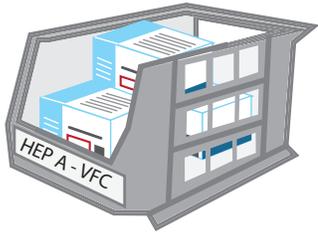


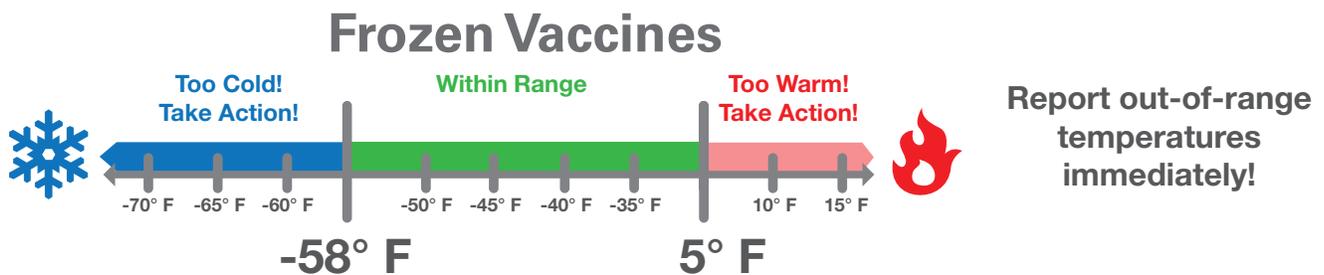
# Storage Best Practices for **Frozen Vaccines–Fahrenheit (F)**

## 1 Unpack vaccines immediately

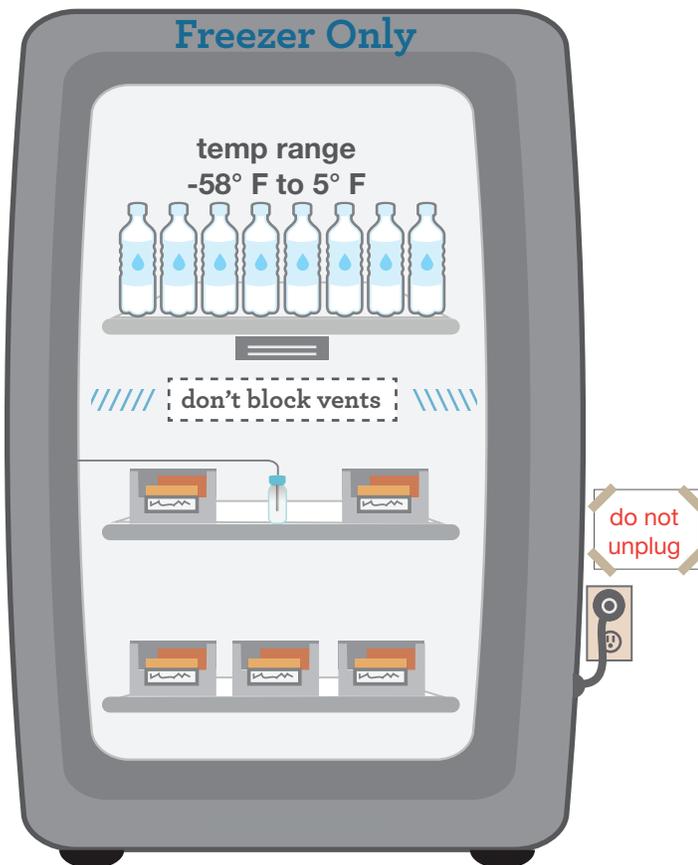


1. Place the vaccines in trays or containers for proper air flow.
2. Put vaccines that are first to expire in front.
3. Keep vaccines in original boxes with lids closed to prevent exposure to light.
4. Separate and label vaccines by type and public (VFC) or private.

## 2 Thermostat should be at the factory-set or midpoint temperature setting



## 3 Use vaccine storage best practices



### DO

- ✓ Do make sure the freezer door is closed!
- ✓ Do use water bottles to help maintain consistent temperature.
- ✓ Do leave 2 to 3 inches between vaccine containers and freezer walls.
- ✓ Do post "Do Not Unplug" signs on freezer and by electrical outlet.

### DON'T

- ✗ Don't use dormitory-style refrigerator/freezer.
- ✗ Don't use combo refrigerator/freezer unit.
- ✗ Don't put food in freezer.
- ✗ Don't store vaccines on shelves in freezer door.



U.S. Department of  
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Immunization Unit

Stock No. E11-14482 Rev. 07/2019

CS243541-D Revision February 2018

Visit [www.cdc.gov/vaccines/SandH](http://www.cdc.gov/vaccines/SandH)  
or contact your state health department for  
more information.

# Test Your Knowledge

1 Which of the following units is the best for storing frozen vaccines?

**A.** Full-size refrigerator/freezer (1 outside door/freezer is part of refrigerator)

**B.** Full-size refrigerator/freezer (2 outside doors, separate compartments)

**C.** Stand-alone freezer only unit

**D.** Dormitory-style or mini refrigerator (1 outside door/freezer is part of refrigerator)

2 Circle the TRUE statements:

- A. It is okay to remove vaccines from the original boxes as long as they are stored in the freezer.
- B. Water bottles in the freezer are important to help maintain consistent temperature.
- C. You can “eye test” frozen vaccines—if they look frozen, they are okay.
- D. Leave 2 to 3 inches between vaccine containers and freezer walls.

3 Circle the vaccines that MUST be stored in the freezer:

- A. Varicella vaccine
- B. MMR vaccine
- C. Zoster vaccine live (ZVL)
- D. Recombinant zoster vaccine (RZV)

4 One of the most common reasons that freezers are out of temperature range is:

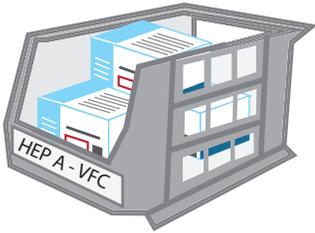
- A. Staff doesn’t shut the freezer door
- B. Power outage
- C. The freezer thermostat is not working properly
- D. The thermometer is broken

5 Frozen vaccines should be stored between \_\_\_\_\_ ° F and \_\_\_\_\_ ° F.

5. Frozen vaccines should be stored between -58° F and 5° F.
4. A—Believe it or not, staff not shutting the freezer door is one of the most common reasons a freezer is out of temperature range!
3. Varicella vaccine (A) and zoster vaccine live (ZVL) (C) MUST be stored in the freezer. MMR vaccine (B) can be stored in the refrigerator or freezer. Recombinant zoster vaccine (RZV) (D) MUST be stored in the refrigerator.
2. B and D are true statements. All vaccines should stay in their original boxes; proper temperature monitoring is very important and cannot be done by eye.
1. C—A stand-alone freezer is the best unit for storing frozen vaccines. NO vaccines—refrigerated or frozen—should ever be stored in a dormitory-style unit (D).

# Storage Best Practices for **Frozen Vaccines–Celsius (C)**

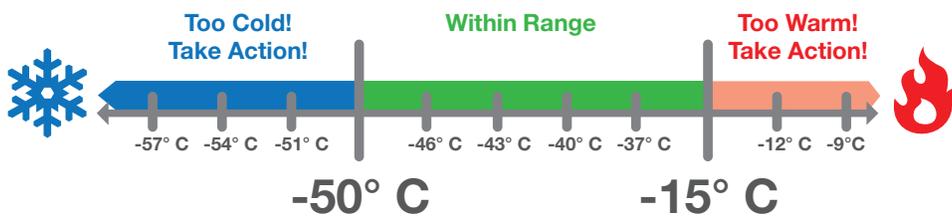
## 1 Unpack vaccines immediately



1. Place the vaccines in trays or uncovered containers for proper air flow.
2. Put vaccines that are first to expire in front.
3. Keep vaccines in original boxes with lids closed to prevent exposure to light.
4. Separate and label vaccines by type and public (VFC) or private.

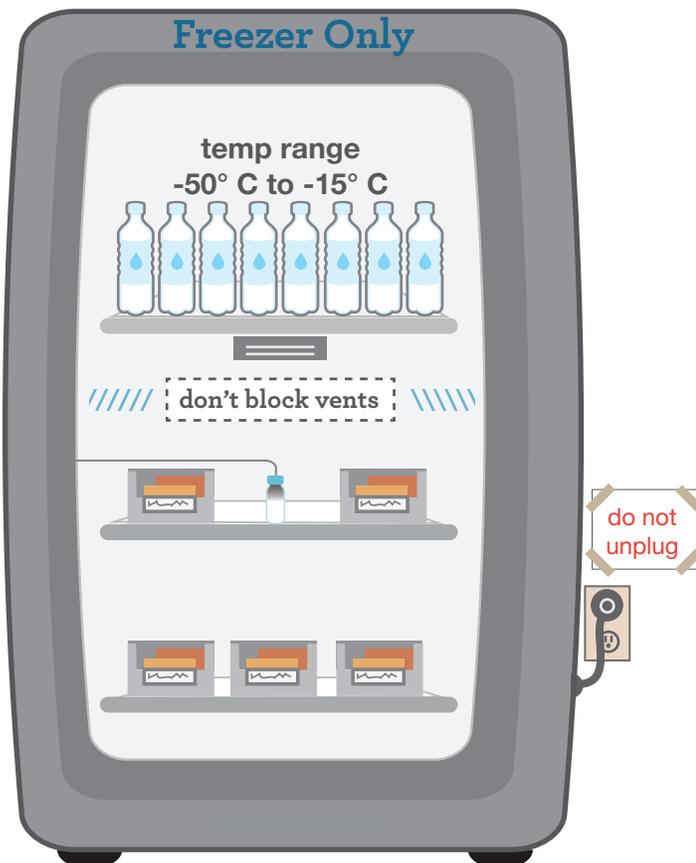
## 2 Thermostat should be at the factory-set or midpoint temperature setting

### Frozen Vaccines



Report out-of-range temperatures immediately!

## 3 Use vaccine storage best practices



### DO

- ✓ Do make sure the freezer door is closed!
- ✓ Do use water bottles to help maintain consistent temperature.
- ✓ Do leave 2 to 3 inches between vaccine containers and freezer walls.
- ✓ Do post "Do Not Unplug" signs on freezer and by electrical outlet.

### DON'T

- ✗ Don't use dormitory-style refrigerator/freezer.
- ✗ Don't use combo refrigerator/freezer unit.
- ✗ Don't put food in freezer.
- ✗ Don't store vaccines on shelves in freezer door.



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Visit [www.cdc.gov/vaccines/SandH](http://www.cdc.gov/vaccines/SandH)  
or contact your state health department for more information.

# Test Your Knowledge

1 Which of the following units is the best for storing frozen vaccines?

**A.** Full-size refrigerator/freezer (1 outside door/freezer is part of refrigerator)

**B.** Full-size refrigerator/freezer (2 outside doors, separate compartments)

**C.** Stand-alone freezer only unit

**D.** Dormitory-style or mini refrigerator (1 outside door/freezer is part of refrigerator)

2 Circle the TRUE statements:

- A. It is okay to remove vaccines from the original boxes as long as they are stored in the freezer.
- B. Water bottles in the freezer are important to help maintain consistent temperature.
- C. You can “eye test” frozen vaccines—if they look frozen, they are okay.
- D. Leave 2 to 3 inches between vaccine containers and freezer walls.

3 Circle the vaccines that MUST be stored in the freezer:

- A. Varicella vaccine
- B. MMR vaccine
- C. Zoster vaccine live (ZVL)
- D. Recombinant zoster vaccine (RZV)

4 One of the most common reasons that freezers are out of temperature range is:

- A. Staff doesn’t shut the freezer door
- B. Power outage
- C. The freezer thermostat is not working properly
- D. The thermometer is broken

5 Frozen vaccines should be stored between \_\_\_\_\_ ° C and \_\_\_\_\_ ° C.

5. Frozen vaccines should be stored between -50° C and -15° C.
4. A—Believe it or not, staff not shutting the freezer door is one of the most common reasons a freezer is out of temperature range!
3. Varicella vaccine (A) and zoster vaccine live (ZVL) (C) MUST be stored in the freezer. MMR vaccine (B) can be stored in the refrigerator or freezer. Recombinant zoster vaccine (RZV) (D) MUST be stored in the refrigerator.
2. B and D are true statements. All vaccines should stay in their original boxes; proper temperature monitoring is very important and cannot be done by eye.
1. C—A stand-alone freezer is the best unit for storing frozen vaccines. NO vaccines—refrigerated or frozen—should ever be stored in a dormitory-style unit (D).