

Job Aid 8.1 Packing Vaccines for Transport

Guidelines for temporary storage/transporting of vaccines

The procedure outlined below will keep all vaccines (including varicella-containing vaccines*) within recommended storage temperatures for 12 hours during transport and/or storage at room temperature. It will also maintain recommended temperatures if the cooler is exposed to outside temperatures as low as -4°F for one of those 12 hours.

* The varicella-containing vaccine must be refrigerated (and NOT re-frozen) after transport, if freezer temperatures cannot be maintained. Be sure that the refrigerators have maintained temperatures between 35° F and 46° F (2° C- 8° C) for at least 3 to 5 days.

Assemble Packing Supplies

- Cooler:** Use a hard plastic insulated Igloo-type cooler with at least 2-inch walls. Attach a "Vaccines: Do Not Freeze" label to the cooler.
- "Conditioned" cold packs:** Condition frozen gel packs by leaving them at room temperature for 1 to 2 hours until the edges have defrosted and the packs look like they have been "sweating." Cold packs that are not conditioned can freeze refrigerated vaccine. **Do not use dry ice.**
- Thermometer:** Prepare the thermometer by placing it in the refrigerator at least 2 hours before you pack the vaccine.
- Packing materials:** Use at least two 2-inch layers of bubble wrap, or similar packing material. Not enough packing material can cause refrigerated vaccine to freeze.



Pack the vaccine

1. Cold Packs

Spread conditioned cold packs to cover only half of the bottom of the cooler.



4. Bubble Wrap

Completely cover the vaccine with another 2-inch layer of bubble wrap.



2. Bubble Wrap & Thermometer

Completely cover the cold packs with a two inch layer of bubble wrap. Place the thermometer/probe on top of the bubble wrap directly above a cold pack.



5. Cold Packs

Spread "conditioned" cold packs to cover only half the bubble wrap. Make sure the cold packs do not touch the vaccine boxes.



3. Vaccine

Stack layers of vaccine boxes on the bubble wrap. Do not let boxes touch the ice packs.



6. Form & Display

Fill the cooler to the top with bubble wrap. Place the thermometer display and the Vaccine transfer form on top.



As soon as you reach your destination, or before returning the vaccine(s) to the storage unit(s) check the temperature!

If the vaccine temperature is:

- Between 35°F and 46°F, place the vaccines in the refrigerator, including all vaccines previously frozen. Label previously frozen vaccines containing varicella to be used within 72 hours.
- Below 32°F or above 46°F, label the vaccines "DO NOT USE," place them in the refrigerator, and contact the VFC program immediately at: cdphe_vfc@state.co.us.

Additional Information

Packing Diluents

1. Diluents should be transported with their corresponding vaccines so there are equal numbers of vaccine and diluents vials for reconstitution
2. Diluents that contain antigen should be transported with their corresponding vaccine at refrigerator temperature
3. Diluents that *do not* contain antigen can be transported at room temperature or refrigerator temperature
4. Diluents normally stored at room temperature should be refrigerated in advance of transportation with refrigerated vaccines

Packing Varicella-Containing Vaccines

Varicella-containing vaccines may be transported at refrigerated temperature (35° - 46° Fahrenheit, 2° - 8° Celsius) for up to 72 hours prior to reconstitution. Although CDC does not recommend transport of frozen vaccine, in the event of an emergency, transport can be accomplished with a portable unit that maintains a temperature between -58°F and +5°F (-50°C and -15°C).

Instruction for the packing and transport of frozen vaccine:

1. Place enough ice packs to cover the bottom of the cooler.
2. Place the vaccine boxes directly on top of the ice packs. **NOTE:** DO NOT freeze the diluents.
3. Place a calibrated thermometer in the container as close as possible to the vaccine.
4. Place another layer of ice packs directly on top of the vaccine boxes.
5. Use packing material to keep cooler contents from shifting. DO NOT place bubble wrap between the vaccine boxes and the ice packs.
6. Record on the transport log:
 - a. The time the vaccine was removed from the storage unit and placed in the container.
 - b. The temperature during transport.
7. **Immediately** upon arrival at the alternate storage facility:
 - a. Place the vaccine in a freezer. Any freezer that has a separate sealed door and reliably maintains a temperature between -58°F and +5°F (-50° C and -15 °C) is acceptable for storage of varicella-containing vaccines.
 - b. Document the time and the temperature when the vaccine was removed from the container and placed in the freezer.
 - c. Label the vaccine "Quarantined: Do Not Use."
 - d. **Contact the manufacturer at 1-800-637-290 for further guidance**, as this is considered a temperature excursion.
 - e. Do not discard vaccine without contacting the Colorado Immunization Section (cdphe_vfc@state.co.us) and the manufacturer for guidance.
8. Use of dry ice is not recommended, even for temporary storage or emergency transport.

Adapted from the California VFC Program (www.eziz.org) for the Colorado Department of Public Health and Environment Immunization Section (www.coloradoimmunizations.com)

