

Proper Storage, Handling, and Shipping of Influenza Vaccine

The goal of storage and handling is to assure that the vaccine remains viable until the point of administration. Keeping vaccines from becoming too cold or too warm is critical. Inactivated vaccines like influenza vaccines are especially sensitive to freezing temperatures.

Guidelines for protecting influenza vaccine from storage and handling mishaps

- Store all influenza vaccine in the refrigerator at 35° to 46°F (2° to 8°C). Aim for 40°F (4°C). Never expose influenza vaccine to freezing temperatures, i.e., 32°F (0°C) or lower.
- Store vaccine in the center of the refrigerator, away from the freezer compartment, the back wall, and the bottom of the refrigerator where the temperature is not stable and differs from the main compartment. Never store vaccine in the refrigerator door.
- Store jugs of water in the refrigerator to help stabilize and maintain a more consistent temperature and keep the temperature stable for a longer period of time if the refrigerator door is left open or if there is a power outage.
- Don't pack any storage unit too tightly. Doing so will inhibit air circulation and affect the temperature.
- **Check and log the refrigerator temperature twice a day.** If the thermometer indicates that the temperature is close to either of the two range extremes 35° or 46°F (2° or 8°) adjust the control. Re-check the temperature in 30 minutes to make sure the temperature is moving in the appropriate direction.
- Safeguard the refrigerator power sources. An outlet that has a safety lock plug is ideal. Use labels on the refrigerator, electrical outlets, and fuses, and circuit breakers in the electrical panel that identify the perishable nature of the vaccine.

MDH has DO NOT UNPLUG and WARNING stickers available for this purpose. Include instructions regarding the immediate steps to take in the event of an interruption of power.

Just a Reminder!

FluMist is now refrigerator stable. FluMist shipments should be placed immediately in the refrigerator between 35° to 46°F (2° to 8°C)
DO NOT RE-FREEZE.

Transporting influenza vaccine, both TIV and LAIV

Whether you are transporting the vaccine short distances or across the state, appropriate packing is a must to ensure the viability of the vaccine. Pack the vaccine as follows:

- Use an insulated cooler, a Styrofoam cooler with 2" walls, or a hard-sided cooler. **Do Not** use Styrofoam coolers purchased at convenience stores or gas stations.
- Place refrigerated packs (**not frozen**) on the bottom of the cooler.
- Add a couple inches of crushed paper over the refrigerated packs.
- Place the vaccine on top of the paper in the center of the cooler.
- Place a thermometer near the vaccine.
- Add another couple of inches of crushed paper on top of and around the vaccine to make sure the vaccine does not shift.
- Finish with another layer of refrigerated packs on top of the paper. Place lid on cooler and close securely. Label the contents as "Perishable" or "Biologics" or "Vaccines."
- If you are taking the vaccine to an off-site clinic, check and record the temperatures in the coolers hourly, at a minimum.



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Shipping influenza vaccine, both TIV and LAIV

If you are shipping vaccine across the state, special planning is needed.

- The entire shipping time should not exceed 48 hours and the vaccine cannot be exposed to freezing temperatures at any time.
- Check with the carrier(s) in your area to determine how long it will take for the vaccine to arrive at the intended destination.

NOTE: The cardboard packaging in which vaccine vials are typically placed do not provide adequate insulation when placed directly next to ice packs.

Take action on storage and handling mishaps!

If a storage or handling mishap occurs (e.g., power outage, exposure to temperatures 32°F or lower, vaccine left out on counter), do not assume the vaccine cannot be salvaged. Do the following:

- Mark the vaccines in question and transfer them to a working refrigerator as quickly as possible.
- Record the temperature inside the refrigerator at the time the problem is discovered.
- Record the length of time the vaccine may have been exposed to non-optimal temperatures.
- Contact the vaccine manufacturer for assistance in determining if the vaccine is still viable. Do not administer any vaccine until viability has determined.

Influenza vaccine manufacturers:
Sanofi Pasteur (Fluzone).....800-822-2463

Novartis Vaccine (Fluvirin)....800-244-7668
(formerly Chiron Corporation)

MedImmune (FluMist).....877-FluMist
(877-358-6478)

GlaxoSmithKline (Fluarix and FluLuval)
.....866-475-8222

CSL Biotherapies (Afluria).....888-435-8633

Ask to speak to their medical
consultant.

Questions?

Call the MDH Immunization Program at 651-201-5503, 1-800-657-3970 or the CDC Hotline at 1-800-232-4636