

Power Outages and Vaccine Storage

Be prepared for an emergency. Use this checklist to plan in the event of a refrigerator malfunction or power outage.

Have a plan

- Designate a trained staff (and alternate) to log max/min temperature twice daily and if necessary, pack vaccine for transport to an alternate location. Keep an emergency staff contact list.
 - Establish an alternate vaccine storage facility with a backup generator when possible. Have insulated containers and packaging materials available for temporarily vaccine storage and recording.
 - Have packing materials on hand (e.g. hard-sided cooler with a tight lid, icepacks and/or gel packs, ice blanket and thermometer). Most supplies are free through OGPMS.
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For power outages

- When a power outage occurs, document the time and the minimum and maximum temperature observed within the fridge. Do not open fridge door to check temperatures.
 - If anticipating temporary power outage, do not open vaccine fridge door until the power is restored. Continue to monitor the fridge temperature.
 - In the event the temperature in the fridge is rising close to +8°C, consider transporting vaccine to an alternate facility or a working fridge
 - Follow proper cold chain procedures for vaccine storage and transportation. Include list of vaccine inventory by name, lot number and amount of doses.
 - Record the temperature of the fridge after power has been restored. Continue to monitor fridge temperatures until they are within 2°C to 8°C range, then twice daily.
 - Contact Toronto Public Health to report any exposures to temperatures below +2°C and/or above +8°C to have the vaccines assessed.
 - Bag exposed vaccines and keep in the fridge separate from new products. Do not discard or use the vaccine until you have consulted with Toronto Public Health.
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For cold chain incidents, call our Immunization Nurses' Line at 416-338-2030

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Steps for transporting vaccines

Refer to *Vaccine Storage and Handling Guidelines*

- Pre-chill the cooler with ice packs** until temperature is between +2 °C to +8 °C

- Condition the ice/gel packs** by leaving them out at room temperature for 20 to 30 minutes or until beads of water cover its surface. This increases the icepacks temperature to 0°C and prevents freezing of the vaccines

- Position the temperature monitoring device** or the sensor in the centre of the vaccine package.

- Use insulating material** (e.g. bubble wrap, Styrofoam chips or shredded paper) loosely wrapped around the vaccine packages for cool air circulation.

- Mark vaccine insulated containers with the label:** "VACCINES – STORE BETWEEN +2°C to +8°C."

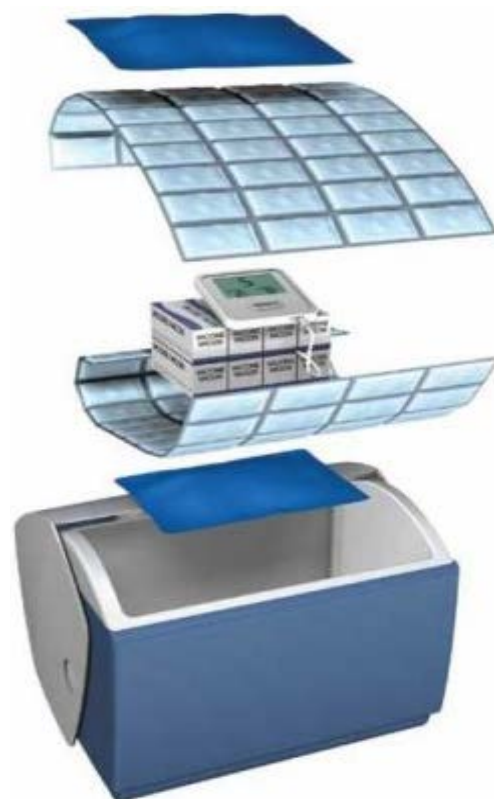


Figure 1: How to pack an insulated container

For information on cold chain incidents or reporting, call our Immunization Nurses' Line at 416-338-2030 or visit www.toronto.ca/health/professionals

Vaccine Packing Supplies:

Most supplies are available, free through the Ontario Government Pharmaceutical and Medical Supply Service (OPGMSS) in the Requisition for Biological Supplies form. <http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/GetFileAttach/014-2255-64E~9/%24File/2255-64E.PDF>

Sources:

1. Ontario Ministry of Health and Long-Term Care. Vaccine Storage and Handling Guidelines. (2013)
http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/guidance/guide_vaccine_storage.pdf
2. Public Health Agency of Canada: National Vaccine Storage and Handling Guidelines for Immunization Providers (2007) Urgent vaccine storage and handling.
<http://www.phac-aspc.gc.ca/publicat/2007/nvshglp-ldemv/section2-eng.php#25>