

# Maintain the Cold Chain – Part 3



**A learning module for those who transport and handle vaccines**

Reviewed and updated August 2019



# PART 3

## **Part 3 includes:**

- Section 4 – Transporting Vaccines
- Section 5 – Cold Chain Incidents



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## Section 4

# Transporting Vaccines



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# Transporting Vaccine

Transport vaccines in a monitored, insulated hard sided cooler to ensure they stay in the temperature range between 2°C to 8°C.

Use an insulated hard sided cooler with icepacks, a thermometer and a protective layer of newspapers to pick up vaccines from the Health Unit.



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# The Cooler

The Health Unit will provide all vaccine users with an insulated hard-sided cooler.

Use this insulated hard-sided cooler for:

- Transporting vaccines
- Temporary storage of vaccines during equipment maintenance (e.g. defrosting refrigerator)
- Emergency storage of vaccines during equipment or electrical failure (e.g. power outage)

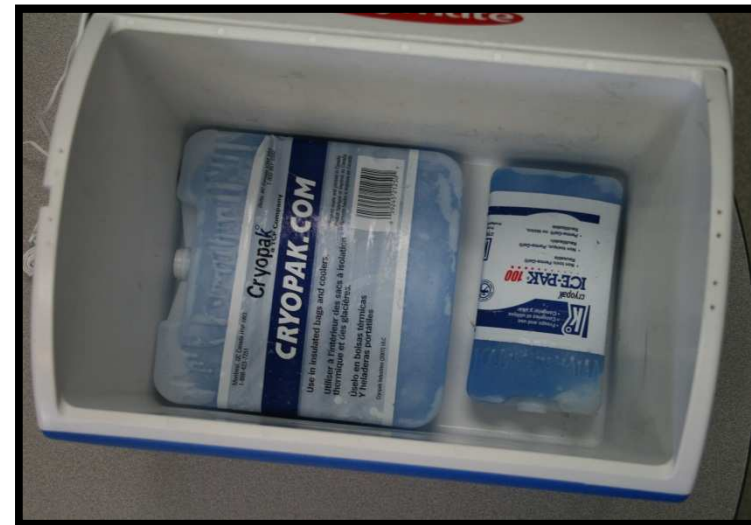


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# Getting the cooler ready...



**Step 1:**  
Take icepacks out of the freezer.



**Step 2:**  
Place icepacks inside the cooler.



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### Step 4:

Put the digital thermometer probe inside an empty vaccine box and put in the cooler.

### Step 3:

Cover icepacks with newspaper.



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### **Step 5:**

Attach the thermometer to the outside of the cooler.

Clear the maximum/minimum temperatures.



### **Step 6:**

Let the cooler pre-chill until the temperature inside the cooler is between 2°C and 8°C.



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### Step 7:

Clear the maximum/minimum temperatures again and the cooler is ready for transporting vaccine.

**DO NOT PUT** the cooler in the trunk of a vehicle – this puts vaccines at risk for exposure to extreme temperatures outside the **2°C to 8°C range**.



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## Section 5

# Cold Chain Incidents



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## Cold Chain – Defined

The **cold chain** refers to ALL materials, equipment and procedures used to ensure vaccines remain within the required temperature range (2°C to 8°C) from the time the vaccine is produced by the manufacturer until the vaccine is administered to the client.

A **cold chain incident** happens if the current, maximum or minimum temperature inside a vaccine refrigerator or insulated hard sided cooler falls below 2°C or rises above 8°C.

**All cold chain incidents must be reported to the Health Unit right away.**



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# How to Report a Cold Chain Incident...

1. Contact the Health Unit's Vaccine Preventable Disease Program:
  - Thunder Bay - 625-5900 or toll-free at 1-888-294-6630
  - District Communities - Contact your local Health Unit branch office
2. Fax two documents to the Vaccine Preventable Disease Program:
  - Fax the **Ministry of Health Vaccine Cold Chain Incident Exposure/Wastage Report** form, which must include a list of the vaccine inventory. The form is available at [TBDHU.COM](http://TBDHU.COM); **Professionals > Health Care Providers > Immunization Resources** and scroll down to **Reporting a Cold Chain Incident**.
  - Fax a copy of your temperature log book.
3. Follow the directions provided by Health Unit staff after the form has been reviewed and assessed.

Make sure all information is easy to read and include the brand names of all vaccines involved.

Health Unit staff will use all information to determine if the vaccine is viable.



## TIP - How to Prevent Incidents

Follow these steps to help prevent incidents:

- Store vaccines in the middle of the refrigerator.
- Store vaccines with the earliest expiry dates at the front and use these vaccines first
- Order a 1 week supply at a time.
- Keep the refrigerator door closed if the electricity goes out. Record the time as well as the current, maximum and minimum temperatures of the refrigerator and re-set or clear the thermometer.
- Keep the doors closed during a power outage to try and keep temperatures within range (2°C to 8°C) for a period of time.
- Contact the Health Unit if the temperature goes outside of the 2°C to 8°C range.
- Contact the Health Unit to make arrangements for the Health Unit to store vaccines should you have a scheduled power outage.



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## TIP - Exposed and Expired Vaccines

Vaccine is considered exposed when:

- It is stored or handled at temperatures below 2°C or above temperatures of 8°C for any period of time.
- It is not stored according to the manufacturer's recommendations.

**NOTE:** Place exposed vaccine in a brown paper bag marked *DO NOT USE* and **leave this bag of vaccine in the refrigerator until the Health Unit informs you on whether or not the vaccine is viable. DO NOT LEAVE THE VACCINE OUTSIDE OF THE REFRIGERATOR.** If a refrigerator is not available, place in a pre-conditioned cooler.

Vaccine is considered expired when:

- The expiration date listed on the vial has passed.



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## Returning Exposed and Expired Vaccines

- ***The Non-Reusable Vaccine (Spoiled or Expired) Return Form*** form must be completed when returning expired or exposed vaccine.
- The form is available at **TBDHU.COM; Professionals > Health Care Providers > Immunization Resources** and scroll down to Returning Non-Reusable Vaccine.



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## Next Steps...

- Return to the Health Unit's website to review Part 4 by clicking the back button found on the left side of the web browser at the top of the page.
- Continue through Parts 4 and 5. Then, complete a final quiz (Section 8).
- Submit the quiz to receive a certificate of completion.



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