



My Emergency Preparedness Plan

Information *For and About* Adult and Pediatric Tube-Fed Patients of the BC Home Enteral Nutrition (HEN) Program

My name: _____

BC HEN Program

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A blank copy of this booklet can be found at:
www.bchomenutrition.org/emergency-preparedness.html

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Note:

In this booklet, “you” and “your” refers to:

- you, a patient on HEN, or
- you, the caregiver of a family member, such as a child or spouse, on HEN

Introduction

Disasters are major events that often happen quickly and without warning. In British Columbia (BC) and the Yukon, a variety of disasters can occur. Disasters include earthquakes, floods, landslides, forest fires, avalanches, tsunamis, storms and hazardous material spills.

A disaster can directly affect you and your ability to give yourself tube feeds at home. Tube feeding at home is called home enteral nutrition (HEN).

You are at risk during a disaster because you need power to operate your feeding pump. You also need water for washing your hands, flushing your feeding tube and rinsing your feeding bags and syringes. Power and clean water might not be available for many days in a disaster. Also, telephones might not work, roads and bridges might be blocked and hospitals as well as emergency rooms might be crowded with injured people.

Being prepared for a disaster is a shared responsibility. The Government of Canada encourages all Canadians to be prepared for at least the first 72 hours (3 days) of an emergency.

You may have heard the term 'emergency preparedness'.
Emergency preparedness means you should:

- (1) Know the risks
- (2) Make a plan
- (3) Have an emergency pack

This booklet teaches you how to be prepared for a disaster. **Keep this booklet with your HEN Emergency Pack** (see page 13).

More information on emergency preparedness can be found here:

Government of British Columbia - Emergency Management BC:

www.pep.gov.bc.ca

**Emergency Management BC – Individual & Neighbourhood All-Hazard
Emergency Preparedness Workbook:**

www.pep.gov.bc.ca/hazard_preparedness/AllHazards_Web.pdf

Government of Canada – Get Prepared:

www.getprepared.gc.ca

The Oley Foundation:

www.oley.org/lifeline/Nutrition_and_You_Be_Prepared.html

Safety Instructions in an Emergency

Follow these safety instructions during a disaster:

1. Stay at home unless you need medical attention or are evacuated.
2. You may be asked to leave home. Evacuation might be by car, ambulance, military vehicle or air transport. Be prepared to leave on short notice.
3. If you have to go to an emergency shelter, tell the person in charge about your health care needs.
4. If you leave your home, bring your HEN Emergency Pack (see page 13) with you.
5. Contact the BC HEN Program and Product Distribution Centre if you have any address and telephone changes so your contact information is up-to-date:

BC HEN Program: Tel: 604-806-9353 Toll Free: 1-877-806-9353

Product Distribution Centre: Tel: 604-927-2000 Toll Free: 1-800-988-1155

6. Contact the doctor, dietitian and/or nurse involved in your nutrition care if you have questions:

Dietitian: Name: _____

Tel: _____

Doctor: Name: _____

Tel: _____

Nurse: Name: _____

Tel: _____

Suggestions from your Doctor, Dietitian or Nurse

Use the space below to record suggestions from your doctor, dietitian or nurse about how to manage your tube feeds during an emergency or disaster:

Medical Alert

Consider wearing a medical alert bracelet in the event you are injured or unable to talk. Ask your doctor or pharmacist where you can get a medical alert bracelet. These are the different types of medical alert bracelets:

- A bracelet engraved with medication allergies you may have and that also states “I have a feeding tube”.
- An engraved bracelet registered with a medical alert company. When you register your bracelet, you register all your medical information. Medical staff can access the information with a phone call to the company.
- A bracelet with a USB flash drive. You can save your medical information on to the chip. Medical staff can plug the chip into a laptop or computer.

Update your medical information if there are any changes to your medical status.

In Case of Emergency (ICE)

ICE stands for In Case of Emergency. If you have a cell phone, enter “ICE” under your contacts with a phone number to call in an emergency. This can be a family member or friend who can provide medical information if you are not able to. Paramedics, fire fighters and police officers can look up this “ICE” number on your cell phone. Your cell phone must be unlocked, charged and working to access this information.

Emergency Contact Information

If you require emergency medical attention, it is important you give your emergency contact information to medical personnel.

*** Keep a copy of this sheet in your HEN Emergency Pack at all times.**

Please print clearly and update it if there are changes. You can find a blank copy of this sheet at www.bchomenutrition.org/hen-emergency-preparedness.html

Date completed: _____

My Information: _____

Name: _____
Last First Middle

Date of Birth: ____ | ____ | ____ Personal Health Number: _____
mmm dd yy

Address: _____
Street, Apt # City Province Postal Code

Phone: _____
Home Work Cell

Email: _____

Emergency Contact (within BC or the Yukon): _____

Name: _____
Last First Middle

Relationship to you: _____

Address: _____
Street, Apt # City Province Postal Code

Phone: _____
Home Work Cell

Email: _____

Emergency Contact (out of province): _____

Name: _____
Last First Middle

Relationship to you: _____

Address: _____
Street, Apt # City Province Postal Code

Phone: _____
Home Work Cell

Email: _____

Medical Information and Contacts

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My name: _____ Date completed: _____

Reason for HEN: _____ HEN start date: _____

Current and Past Medical Conditions:

1	6
2	7
3	8
4	9
5	10

Infectious Precautions: MRSA VRE TB Other: _____

Allergies: _____

Blood Type (if known): _____

Medical Contacts:

Family Doctor: _____

Phone Number: _____ Other Contact Number: _____

Specialist: _____ Speciality: _____

Phone Number: _____ Other Contact Number: _____

Pharmacy:

Name & Contact: _____

Phone Number: _____ Fax Number: _____

The hospital where you usually get your care:

Hospital name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Medications

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My name: _____ Date completed: _____

Tips:

- Know what medications you are taking – their names, strength ('dosage') and how often to take ('frequency').
- Know which medications are absolutely necessary for survival.
- Keep a 2-week emergency supply of medications on hand at all times. Rotate the medication every 2 to 3 months and check the expiry dates. Take these medications with you if you are evacuated.
- If you travel, carry 2 to 3 days of medications and HEN supplies in your hand-carried baggage. Don't let this bag out of your sight. In disasters, bags get lost or misplaced. Put your name on the bag.

My Medications:

(include over-the-counter medications, vitamins, supplements)

	Medication	Strength	How Often to Take
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Home Enteral Nutrition (HEN) Information

*** Keep a copy of this sheet in your HEN Emergency Pack at all times.**

Please print clearly and update it if there are changes. You can find a blank copy of this sheet at www.bchomenutrition.org/emergency-preparedness.html

My name: _____ Date completed: _____

Weight: _____ Date of weight: _____

Height: _____ Date of height: _____

Address: _____

Phone: _____

Fax: _____

Type of tube & tube tip location: * _____

Tube: Percutaneous Endoscopic Gastrostomy (PEG)

Percutaneous Endoscopic Gastrostomy with tip in jejunum (PEG-J)

Gastrostomy Naso-Gastric

Jejunostomy Naso-Jejunal

Date inserted: _____ French size: _____

Hospital inserted: _____ Doctor inserted: _____

* Ask your doctor about the type of tube and tube tip location if you are unsure

Tube feeding schedule: _____

Formula: _____

Schedule:

- Fill in the "Nocturnal Schedule" (below) or the "Intermittent Schedule" (on the next page) according to your current tube feeding schedule

Nocturnal Schedule (overnight by pump)

Start time:	
End time:	
Infusion rate:	
Flush volume and times:	

Tube Feeding Schedule, *continued*

Intermittent Schedule (_____ feedings per day)

Pump

Gravity Method

Bolus Method using a syringe

Time	Flush volume before each feeding	Formula volume and rate of each feeding	Flush volume after each feeding

Home Enteral Nutrition (HEN) Evacuation

When a disaster occurs, you might need to leave quickly. Whether or not you are hooked up to your feeding pump, *take your feeding pump, power cord, formula and HEN Emergency Pack (see page 13) with you if you need to evacuate.*

Tube Feeding with Pump versus Gravity

Scenario #1 – There is an emergency or disaster and you have access to power (regular electricity or back-up generator):

If you have access to power and you normally use a pump to deliver your tube feedings:

- Continue to take (infuse) your formula with your charged feeding pump according to your regular tube feeding schedule.
- Keep your feeding pump fully charged (plugged in) at all times in case you lose power.

Scenario #2 – There is an emergency or disaster and you do NOT have access to power:

Not having access to power means your feeding pump cannot be re-charged.

If you do not have access to power:

- Use your **charged** feeding pump to take your tube feeds until the power has been drained. When the power has been drained, you will have to take your tube feeds by gravity or syringe. See pages 14 to 17 for more information on this.

You might want to get a back-up generator from your local hardware store for when you do not have access to power.

✱ Here are some tips on using a back-up generator:

- Read the manufacturer's operating and maintenance instructions that come with your generator before operating.
- Do not run the generator inside your home, garage, crawlspace, basement or shed. Locate the generator outside and far from doors, windows, vents and other openings that might allow carbon monoxide to come indoors. Carbon monoxide is a toxic gas that does not have any colour or odour. It is poisonous and can cause harm or even death to humans and animals.
- If you live in an apartment or condo, ask your building manager if there is a generator and, if so, which areas of your building will have power in an emergency situation.

General Emergency Pack

The government suggests you have a general emergency pack that will help you be prepared in a disaster. You can buy a pack or make your own. You can find packs and supplies at outdoor activities stores and online. The Canadian Red Cross has a “72 HR Disaster Preparedness Kit” for sale at <https://shop.redcross.ca> (1-877-356-3226).

Suggested Supplies for General Emergency Pack:

- | | |
|---|---|
| <input type="checkbox"/> Cash | <input type="checkbox"/> Garbage bags |
| <input type="checkbox"/> Hand sanitizer | <input type="checkbox"/> Bottled water |
| <input type="checkbox"/> Liquid soap | <input type="checkbox"/> Water purification tablets and 1 litre container for water purification |
| <input type="checkbox"/> Whistle | <input type="checkbox"/> Household bleach and eye dropper for water purification (see page 13) |
| <input type="checkbox"/> Pocketknife | <input type="checkbox"/> Can opener (small, hand-operated) |
| <input type="checkbox"/> Pair of scissors | <input type="checkbox"/> Disposable plates, bowls, cups and plastic knives, forks and spoons |
| <input type="checkbox"/> Waterproof matches and candles | <input type="checkbox"/> Paper towels |
| <input type="checkbox"/> Flashlight (either battery-operated or hand-cranked) | <input type="checkbox"/> Container with lid |
| <input type="checkbox"/> Radio (either battery-operated or hand-cranked) | <input type="checkbox"/> Ziploc bags |
| <input type="checkbox"/> Batteries for flashlight and radio (with spares) | <input type="checkbox"/> Aluminum foil |
| <input type="checkbox"/> First aid kit | <input type="checkbox"/> Plastic garbage bags – orange bags can also be used as emergency signals |
| <input type="checkbox"/> Toilet paper | <input type="checkbox"/> Extra pair of eye glasses (if needed) |
| <input type="checkbox"/> Tooth brush and tooth paste | <input type="checkbox"/> Non-perishable foods (if needed) |
| <input type="checkbox"/> Pill crusher (if needed) | <input type="checkbox"/> Extra clothes and coat |
-
- Medical supplies** (e.g. Ostomy supplies – if needed)
- Medication list and two-week supply of medications (see page 6)**

* Tips:

- Check expiry dates every six months. Replace items as required.
- Use an orange bag or backpack as an emergency signal.
- Line the pack with a plastic garbage bag to keep it dry.
- If you are including foods in your pack, only include non-perishable foods that do not require cooking and can be replaced regularly.

Home Enteral Nutrition (HEN) Emergency Pack

Consider the following supplies for your HEN Emergency Pack. Ask the doctor, dietitian or nurse managing your tube feeding if you have a question about the supplies you need.

Supplies for HEN Emergency Pack:

For all feeding tube types:

- | | |
|---|---|
| <input type="checkbox"/> Hand sanitizer | <input type="checkbox"/> Cotton swabs ('Q-tips') for cleaning tube site (if needed) |
| <input type="checkbox"/> Paper towels | <input type="checkbox"/> Thermometer, calibrated |
| <input type="checkbox"/> Gravity feeding bag sets | <input type="checkbox"/> Foldable IV pole or coat hook to hang your solution from |
| <input type="checkbox"/> Syringes for bolus feeding, medications, water flushes | |
| <input type="checkbox"/> Micropore tape | |

For naso-gastric feeding tubes, consider these supplies in addition to the supplies listed above:

- | | |
|--|--|
| <input type="checkbox"/> Tegaderm dressing | <input type="checkbox"/> Lubricant packages |
| <input type="checkbox"/> pH test strips | <input type="checkbox"/> Extra feeding tubes |

- Copy of this guide with up-to-date information**
- Copy of your BC CareCard
- Copy of government-issued ID (photo ID recommended)
 - Adults: passport, driver's license, BC identification card
 - Children: birth certificate, school identification card, passport

Tips:

- Have enough HEN supplies for at least 5 to 7 days. You might need to take your tube feeds by gravity or syringe if you do not have access to power.
- Infusion pump feeding bags cannot be used for gravity feeding.
- Check expiry dates every six months. Replace items as required.
- Use an orange bag or backpack as an emergency signal.
- Line the pack with a plastic garbage bag to keep it dry.
- You can buy HEN supplies for gravity or syringe feeding from your local medical supply store.

Procedure for Tube Feedings by Gravity (Gravity Method)

If there is no power during an emergency, you will have to use the gravity method to take your tube feeds. It is important to try the gravity method before an emergency so that you are familiar with it.

Tips:

- The gravity method should only be done during the day when you are awake to monitor the drop rate, as the drop rate might speed up, slow down or stop.
- If you normally infuse your formula continuously overnight and you are going to use the gravity method to infuse your formula intermittently (for example, 3 to 6 feedings each day), ask your dietitian or doctor about:
 - The maximum volume of formula to infuse at each feeding.
 - How many feedings to infuse in a day – you might need to start with more frequent feedings (e.g. 6 “meals”) at a lower rate and change over 2 to 3 days to less frequent feedings (e.g. 3 “meals”) at a higher rate.

Before you start:

1. Organize yourself

- Wash your hands
- Gather supplies: IV pole or coat hook, formula, paper towel, gravity feeding bag and tubing, syringe for flushing, container filled with clean water for flushing

2. Prepare supplies

- Place IV pole beside work area and place supplies on clean table
- Read supply labels
- Prepare the formula:

Ready-to-use formula	Powder formula
<ul style="list-style-type: none">• Shake the container• Wipe the top of the container(s) with a clean paper towel before opening	<ul style="list-style-type: none">• Thoroughly mix the powder with water* as prescribed by your doctor or dietitian

* See page 18 for Water Disinfection instructions

- Close the roller clamp on the feeding bag tubing
- Pour prepared formula into the feeding bag

Tube Feedings by Gravity, *continued*

- Hang the feeding bag on an IV pole or coat hook; keep the feeding bag above your head so the formula infuses by gravity
- Squeeze the chamber at the bottom of the feeding bag to let a small amount of formula into the drip chamber (up to the fill line)
- Open the roller clamp and let the formula flow to the end of the feeding bag tubing (prime the feeding bag tubing)
- Close the roller clamp

Give your tube feeding:

1. Give your tube feeding

- Use the syringe to flush your feeding tube with clean water according to your feeding schedule
- Connect the feeding bag tubing to the tip of your feeding tube
- Open the roller clamp on the feeding bag tubing to allow a steady drop rate as prescribed by your doctor, dietitian or nurse:

If pump rate is:	Drop rate* should be:
20 mL per hour	2 drops every 15 seconds
40 mL per hour	3 drops every 15 seconds
60 mL per hour	4 drops every 15 seconds
80 mL per hour	5 drops every 15 seconds
100 mL per hour	6 drops every 15 seconds
120 mL per hour	7 drops every 15 seconds
140 mL per hour	8 drops every 15 seconds

* Drop rates are estimates

- Sit in an upright position or keep the head of your bed elevated to at least 30 degrees during your feeding

After your tube feeding is done:

1. Organize yourself

- Wash your hands
- Gather supplies: syringe for flushing, container filled with clean water for flushing, paper towel to wipe spills

2. Stop the infusion

- Disconnect the feeding bag tubing from your feeding tube
- Use the syringe to flush your feeding tube with clean water according to your feeding schedule
- Clean your tube feeding supplies
- Remain upright or keep the head of the bed elevated to at least 30 degrees for at least 30 to 60 minutes after your feeding

Procedure for Tube Feedings by Syringe (Bolus Method)

If there is no power during an emergency, you might be able to use the bolus method to take your tube feeds. It is important to try the bolus method before an emergency so that you know if you can tolerate it.

Tips:

- Use the bolus method only during the day when you are awake and sitting or standing upright to prevent:
 - Acid reflux (heartburn)
 - Aspiration (formula going from your esophagus into your lungs)
 - Nausea
 - Vomiting
- Ask your doctor or dietitian about the maximum volume of formula to infuse at each feeding and how many feedings (“meals”) to have each day.
- The bolus method can be tried if your tube tip is in the stomach. Patients with tube tips in the small bowel might not tolerate the bolus method.
- Depending on your tolerance, you may need to take less formula more often. Tolerance is assessed by acid reflux, nausea, vomiting, bloating, stomach pain and diarrhea.
- If you do not tolerate the bolus method, use the gravity method in an emergency (see page 12).

Before you start:

1. Organize yourself

- Wash your hands
- Gather supplies: formula, paper towel, syringe for tube feeding and flushing, container filled with clean water for flushing

2. Prepare supplies

- Read supply labels
- Prepare the formula:

Ready-to-use formula	Powder formula
<ul style="list-style-type: none">• Shake the container• Wipe the top of the container(s) with a clean paper towel before opening	<ul style="list-style-type: none">• Thoroughly mix the powder with water* as prescribed by your doctor or dietitian

* See page 16 for Water Disinfection instructions

Tube Feedings by Syringe, *continued*

Give your tube feeding:

1. Give the tube feeding
 - Flush your feeding tube with clean water according to your feeding schedule
 - Draw up the formula into the syringe
 - Insert the syringe tip into the feeding tube
 - Slowly plunge the formula into your feeding tube over a few minutes
2. Repeat until all of the formula has been given

After your tube feeding is done:

1. Stop the feeding
 - Flush your feeding tube with clean water according to your feeding schedule
 - Clean your tube feeding supplies
 - Remain upright for at least 30 to 60 minutes **after** the feeding

Water Disinfection

Clean water is needed for flushing your feeding tube as well as cleaning your feeding bags sets and syringes. If you do not have access to clean water, you will need to make your own. Follow the instructions below to learn how to disinfect dirty water.

Tip:

- Before disinfecting your water, let it sit for 30 minutes to allow dirt to sink to the bottom. Then strain the clear water through several layers of paper towels, coffee filters or a clean cloth to remove any extra dirt or floating matter.

Warning:

- Do *not* use swimming pool, hot tub or water bed water as a source of drinking water. Chemicals in the water make it unsafe to drink.

Water Disinfection Methods:

Option 1: Use water purification tablets – follow the instructions.

Option 2: Boil water for 7 to 10 minutes.

Option 3: Disinfect water with liquid household bleach. Do **not** use scented bleach, coloursafe bleach, bleach with added cleaners or granular forms of bleach. Follow these steps:

1. Wash container with soapy water. Fill with a 10% bleach solution (1 part bleach and 9 parts water) and let stand for 5 minutes. After 5 minutes, empty the container and let air dry.
2. Strain the water as described above in the “Tip” section.
3. Add liquid household bleach as follows:

Water	If water is clear:	If water is cloudy:
1 litre (1 quart)	2 drops bleach	4 drops bleach
4 litres (1 gallon)	8 drops bleach	16 drops bleach

4. Shake the container of water and bleach to mix thoroughly. Let the mixture stand for 30 minutes. There should be a faint chlorine scent after treating. If there isn't, add the same amount of bleach again and let stand for 15 minutes.

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Adult and Pediatric Tube-Fed Patients
of the BC Home Enteral Nutrition (HEN) Program
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Parts of this publication are adapted from the following, with permission:

1. Cleveland Clinic. *Tube-Feeding Instructions for Home*.
2. Providence Health Care. *My Emergency Preparedness Plan: Information For and About Patients of the BC Home Parenteral Nutrition (HPN) Program*. 2013.
3. University of Michigan Health System. *Gravity Administration*.
4. Vancouver Coastal Health. *Tube Feeding at Home*. 2012.

A blank copy of this booklet can be found at:
www.bchomenutrition.org/emergency-preparedness.html



How you want to be treated.

www.providencehealthcare.org

This material has been
reviewed and approved by
patients, families and staff.

