

My Home Parenteral Nutrition Emergency Plan

My name:

My Home Parenteral Nutrition Emergency Plan

If you use home parenteral nutrition (HPN), it is very important to be prepared for an emergency (like a weather-related emergency or a natural disaster). It is important to plan before an emergency to make sure you will be able to keep doing your therapy without any interruptions.

What is an HPN emergency plan?

- Your HPN emergency plan should have instructions on what to do in different types of emergencies.
- Ask yourself:
 - › What will I do if the power goes out?
 - › What will I do if I cannot get clean water?
 - › What will I do if deliveries cannot be made to my home?
 - › How would I respond in different types of emergencies (like a flood or power outage)?
- Make a **medical contact list**. This list should have contact information for people and places like:
 - › Your home care provider
 - › Your primary health care provider (family doctor or nurse practitioner)
 - › Your HPN clinic
 - › Other contacts that are important for your HPN and health care
- Think about buying a MedicAlert® bracelet in case you are injured or not able to talk. The bracelet should have information like “intravenous nutrition” and that you have a Hickman line in your chest. This is not covered by the provincial health plan.
- Ask your primary health care provider to send a form to Nova Scotia Power to request that you be added to their system as a priority customer. If you do not have a primary health care provider, ask a member of your HPN health care team for help filling out the form.
- Try to plan to have access to a generator or other power source in case of a long power outage.
- Review ways to do HPN using the gravity method (see page 6).

What emergency supplies should I have ready?

- Make sure you have:
 - › Frozen ice packs in the freezer
 - › Cooling blankets **in the fridge** (not the freezer)
 - › A thermometer
 - › A large cooler
 - › Flashlights
 - › Battery-powered candles and/or a battery-powered lantern(s)
 - › Batteries
 - › Hand sanitizer
- **Always keep a copy of your current HPN order.** If there are any changes to your order, the HPN Program coordinator will send you an updated copy.

HPN during a power outage

- You **must** keep your HPN solution cool if the power goes out.

If you have a generator:

- › Use it to power your fridge and pumps.

If you do not have a generator:

- › Keep a thermometer in the fridge where you store your HPN solution. The temperature should be around 4° C (40° F), with a range of 2° C to 8° C (35.6° F to 46° F).

Shorter power outages (under 12 hours)

- › For shorter power outages, **keep the fridge closed as much as possible** to keep the cold air in.

If the power is out for more than 12 hours

- › If the power is out for more than 12 hours, check your fridge temperature every 1 to 2 hours.
- › If the temperature in the fridge is getting **close to 8° C**, move your HPN to your cooler.

How to safely pack your HPN in the cooler

To pack your HPN so it stays at a safe temperature in the cooler, follow these steps:

- Put frozen ice packs on the bottom of the cooler.
 - Cover the ice packs with a cooling blanket. This will prevent the HPN solution from freezing.
 - Put your HPN solution on top of the cooling blanket. Cover the HPN solution with another cooling blanket.
 - Put the thermometer between the cooling blanket and your HPN solution.
 - Put more ice packs on top of this cooling blanket. **Do not** put the thermometer next to the ice packs.
- If the temperature in the cooler rises above 8° C, you can use **one bag of HPN within the next 30 hours**. You **must** throw out all of the other bags. Cut open the bags you cannot use and pour the solution out.

Do not put bags of HPN solution outside in the snow to keep them cool. They will get too cold to use.

Power

- Consider buying a generator to power the things you need the most, like:
 - › Your fridge
 - › Your IV pump
 - › Your furnace
 - › Some lights and outlets
- Having a generator to power these things can give you peace of mind if the power goes out.

If the power goes out

- Have flashlights, battery-operated candles and/or battery-powered lanterns ready to use.
- Make sure you have enough light to read clearly. You need to be able to read the labels on your medications and syringes.
- Clean your hands. If you cannot use soap and water, you can use hand sanitizer.
- Follow these steps for cleaning your hands with hand sanitizer:
 - › Use 1 to 2 pumps from the dispenser and cover all parts of your hands with it.
 - › Rub your hands together until they are dry, about 20 to 30 seconds.
 - › Once they are fully dry, it is OK to touch other surfaces.

Good Hygiene Stops the Spread of Germs

How to Clean Your Hands with Sanitizer



1

Apply 1 to 2 pumps of alcohol-based hand sanitizer to palm of dry hands.



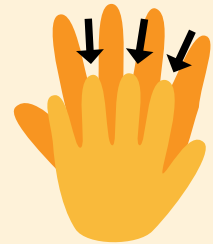
2

Rub palms of hands together.



3

Rub fingertips of each hand in opposite palm.



4

Rub in between and around fingers.



5

Rub the back of each hand with the palm of the other hand.



6

Rub each thumb with the other hand.



7

Rub hands until they are dry.



Do not use towel or paper towel.



If your hands look dirty, please use soap and water to wash them for at least 20 seconds.



Updated September 29, 2020

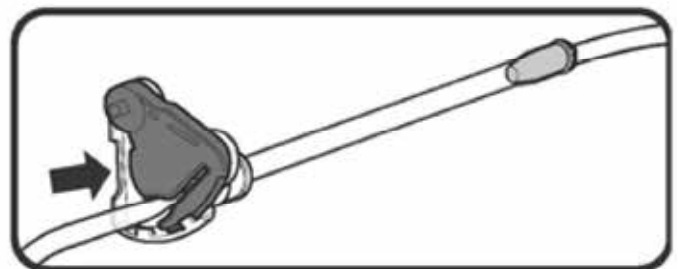
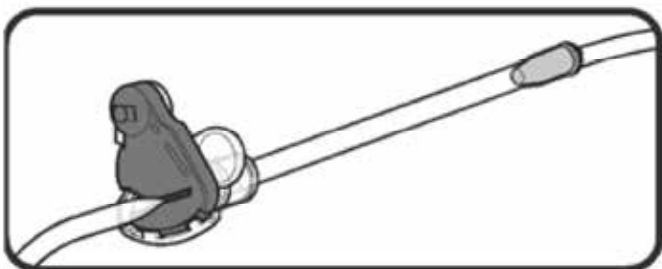
- If you think there may be a power outage, keep your IV pumps plugged in at all times.
- When the power goes off, the pumps will run on battery power to infuse your HPN solution.
- Pump batteries will last **5 to 6 hours** depending on your rates.
- Unless you have backup power (like a generator), you may need to take your HPN using the **gravity method** once the pump battery runs out.
- If a pump's battery runs out, that pump may lose its **drug library** (a list of medications that are programmed in your pump). If this happens, you will not be able to program your HPN and lipids when the pump has power again.
- If your pump(s) loses its drug library, contact an HPN Program team member right away. They will send a replacement pump.

The gravity method (how to run your HPN when your pump battery has run out)

Only infuse your HPN by gravity* if there is an extended power outage or other emergency and you have no other options. Try to use a generator or electricity (like by going to a friend or relative's home that has power, or another place where you can use electricity to power your pumps and store your PN) before you try the gravity method.

To use the **gravity method**, you need to stop fluid flow and set gravity flow. To do this, follow these steps:

1. Press **[STOP]** on each pump.
2. Press **[ON/OFF]** to turn off each pump.
3. Close the roller clamp on each IV line.
4. Open each pump door and remove the lines.
5. You must choose 1 line for gravity flow which will be your PN. Leave the lipid line clamped. Gravity does not allow both lines to flow at the same time.
6. Slide the blue part of the SafeClip on your PN line to the open position, as shown in the diagram below.



Changing the flow rate

1. Check the back of this pamphlet to see what your gravity drip rate needs to be. It is different for each person.
2. Your pump tubing has a roller clamp to control the flow rate. Slowly open the roller clamp on your PN line and start counting the number of drops per minute. Count the drops for **one full minute** to make sure the rate is accurate. Recheck the number of drops per minute every 1 to 2 hours, as movement and position can change your drip rate.
3. Adjust the roller clamp until you get the needed drip rate.

Always keep your current HPN order in the back of this pamphlet for reference.

HPN during an evacuation

If a disaster happens, you may need to leave quickly.

Take the following things with you:

- **Infusion pump**
 - › This may be the only infusion pump you will have access to for days.
- **HPN emergency pack** (see below)
- A list of your current medications
 - › Bring your medications in their original containers.

HPN emergency pack

- This is a bag or backpack that you will keep stocked with HPN supplies so you can take it with you if you need to evacuate (leave your home on short notice, for an unknown amount of time).
- Use a **bright orange bag or backpack** as an emergency signal.
- Have enough HPN supplies for at least 3 to 5 days.
- Regularly rotate supplies from your deliveries with the supplies in your pack to avoid products expiring.
- Line the pack with a plastic garbage bag to keep it dry inside.

We recommend taking these HPN supplies with you:

- A copy of your current HPN order (or refer to the label on your solution)
- A copy of your Nova Scotia health card
- 70% alcohol solution
- Paper towels
- Pump infusion tubings
- IV hydration bags and infusion tubing (if needed)
- Positive pressure cap
- Normal saline (also called **0.9% saline**) flushes
- Heparin flushes
- Alcohol swabs
- 3M™ SoluPrep™ swabs
- 3M™ Tegaderm™ dressing
- 3M™ Micropore™ surgical tape
- Sterile gloves
- Face masks
- Accurate thermometer
- Foldable IV pole or coat hook to hang your solution from
- A cooler, frozen ice packs, and cooling blankets
- Put your infusion pump and 1 to 2 bags of refrigerated HPN solution in the pack (or 3 to 5 bags if you have a cooler with frozen ice packs and cooling blankets).

Remember: Any HPN solution that goes above 8° C must be used within 30 hours or thrown out.

- Keep the empty cooler in a place in your home that you will be able to get to easily. Add the ice packs, cooling blankets, and HPN solution at the last minute. Follow the directions for **how to safely pack your HPN in the cooler on page 3**.
- **Tell your PN team as soon as possible.** They may be able to have more PN made for you, in case your home supply has to be thrown out.

Health Emergency Card

This sheet is your **health emergency card**. Keep a copy in your HPN emergency pack at all times. Print clearly. Update it if there are changes.

My medical information

My name: _____ Date completed: _____

Reason for HPN: _____

HPN start date: _____

Emergency contacts:

Nova Scotia HPN Program

Phone: 902-473-2873/Fax: 902-473-3966

Primary health care provider: _____

Phone: _____ Other contact number: _____

Other: name and title (like a nurse practitioner): _____

Phone: _____ Other contact number: _____

Type of vascular access and location:

Type:

Tunneled Hickman

PICC

Number of lumens:

1

2

3

Insertion site:

Chest

Arm

Insertion side:

Right

Left

Date inserted: _____ Inserted at: _____ (Hospital)

HPN order: Check white label on HPN solution for up-to-date HPN order.

Infusion volume: _____ ml

Infusion frequency:

Daily

_____ days a week

Additional hydration:

Yes

No

If Yes, type: _____ Volume: _____ ml Frequency: _____

Weight: _____ Date of weight: _____ Height: _____

Medications: If you travel, carry 2 to 3 days of medications and HPN supplies in your carry-on bag and keep it with you at all times. Put your name on the bag.

Individual flow rates for pump tubing via gravity

HPN

Lipids

Notes:

Looking for more health information?

Find this pamphlet and all our patient resources here: <https://library.nshealth.ca/PatientEducation>

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to <http://library.novascotia.ca>

Connect with a registered nurse in Nova Scotia any time: call 811 or visit <https://811.novascotia.ca>

Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

Nova Scotia Health promotes a smoke-free, vape-free, and scent-free environment.

Please do not use perfumed products. Thank you!

www.nshealth.ca

Prepared by: Nova Scotia Home PEN Program

Illustration by: Infection Prevention and Control

Designed by: Nova Scotia Health Library Services

The information in this pamphlet is for informational and educational purposes only.

The information is not intended to be and does not constitute health care or medical advice.

If you have any questions, please ask your health care provider.