



Saskatchewan  
**Health Authority**

# Nasogastric (NG) Tube Feed

Management at Home for Adults

TRAINING PURPOSES ONLY



CS-PIER-0202  
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[saskhealthauthority.ca](https://saskhealthauthority.ca)

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## Your Nasogastric (NG) Tube

Date:

Type of tube:
Size of tube:
Length of tube (cm):
Tube measurement at the nose (cm):
Date the tube was last inserted:
Date the tube will be changed:

Date:

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Date the tube was last inserted:
Date the tube will be changed:



**Note:** The NG tube will be changed once a month. If it falls out within the month, please use the same tube for reinsertion.

Transcribed information reviewed for accuracy and confirmed by healthcare provider

## What is a Nasogastric Tube (NG) Tube?

A NG tube is a small, flexible, plastic tube that is placed through your nostril, down the throat and into the stomach.

## Reasons You May Need a NG Tube

A NG tube is often used for a short period of time to give medication or food and water when you cannot eat or drink by mouth. You may need a NG because you may not be able to eat or drink enough by mouth or swallowing is difficult or unsafe.

## What to Feed

You will receive liquid nutrition through your NG tube. This liquid nutrition is also called enteral formula. Enteral formula may completely replace or partially replace a balanced diet of regular food.

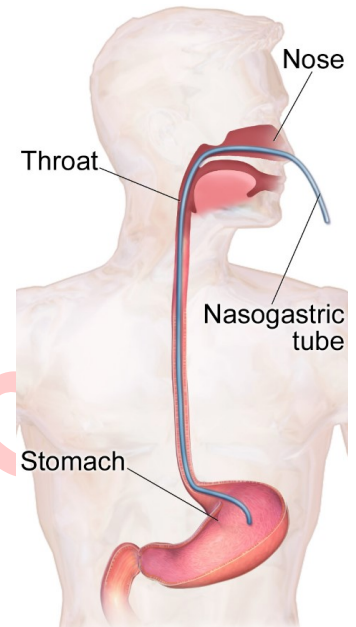
## Feeding Plan

Other Information:

Formula	Amount	Time	Rate (if using pump)



**NOTE:** Your dietitian will meet with you to discuss your individualized feeding plan, including water flushes.



"Nasogastric Intubation" by BruceBlaus, CC BY-SA 4.0, via Wikimedia Commons.

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## Water Flushes

The NG tube must be flushed before and after each feed and each medication.

- Use tap water that is room temperature before and after each feed.
- Use purified or sterilized water before and after each medication.



### \*How to Sterilize Water:

- **DO NOT** use mineralized, carbonated or distilled water. Use tap water, well water approved for drinking, or bottled water. All water must be boiled.
- Fill a pot with water; place pot on stove; bring water to a rolling boil and let boil for 2 minutes.
- Pour boiled water from the pot into a sterile glass container. To sterilize the container, put it in a large pot and cover it with water. Bring water to a rolling boil and boil for two minutes.  
Remove the container from the water and let it air dry on a clean counter.
- Let the sterilized water cool in the sterile glass container for about 30 minutes.
- Cover the container with cling wrap or a sterile lid and store in the refrigerator.
- Sterilized water can be stored in the refrigerator for 48 hours.

## Notes on Feeding Plan and Water Flushes

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Transcribed information reviewed for accuracy and confirmed by healthcare provider

## Feeding by Feeding Pump

A feeding pump controls the flow and rate of the food from the feeding bag and tubing through the NG tube and into your stomach.

Feeding pumps are useful when feeding larger volumes or when feeds need to run longer than 30 minutes.

Feeding by Feeding Pump		
Step 1	Get Ready	Page 6
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Step 3	Positioning	Page 7
Step 4	Flush before Feeding	Page 7
Step 5	Start the Feed	Page 8
Step 6	Flush After Feeding	Page 8
Step 7	Clean Up	Page 8

### Step 1 - Get Ready

1. Wash your hands well with soap and water.
2. Gather supplies:
  - Feeding bag and tubing
  - Feeding pump and IV pole
  - Appropriate sized syringe for water flushes
  - Enteral formula
  - Water for flushes
3. Prepare enteral formula as instructed by your dietitian.  
Check expiration dates.
4. Prepare water for water flushes.
  - Use tap water that is room temperature.







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## Step 2 - Check the Placement

You must check the placement of the NG tube to make sure that it is in the stomach:

- At the time of placement; and
- Before every feeding; and
- Before giving medications; and
- If you are worried the NG tube has come out.

Wash your hands well with soap and water before checking the placement.

 <b>You must see these 2 signs to confirm that the NG tube is in the stomach:</b>	
<b>The centimeter marking</b>	<ul style="list-style-type: none"><li>• The tube was measured and marked at the spot where it should come out of the nose.</li></ul>  If the tube is in the right place, the mark is at your nose.
<b>Stomach fluids</b>	<ul style="list-style-type: none"><li>• Connect appropriate sized syringe to NG tube.</li><li>• Pull back the plunger to bring up 0.5 mL to 1 mL of stomach fluids into the syringe.</li></ul>  If the tube is in the right place, the stomach fluid will look milky, cloudy, or yellow. It may also look like the feed. Gently push the stomach fluids back into the stomach.
 <b>If these 2 signs are not confirmed, DO NOT feed.</b> The NG tube will need to be re-inserted. <ul style="list-style-type: none"><li>• See page 15 for what to do when the NG tube is accidentally pulled out.</li><li>• See page 16 for instructions on how to reinsert the NG tube.</li></ul>	

## Step 3 - Positioning

- Sit in an upright and comfortable position in a wheelchair, or kitchen chair for the feeding.
  - ⇒ This will help to stop the feed from entering your lungs (aspiration) and/or acid reflux from happening.
- Have NG tube feed during family mealtimes when possible.
- Keep upright for at least 1 hour after each feeding.

## Step 4 - Flush Before Feeding

1. Wash hands well with soap and water.
2. Draw up the required amount of water into an appropriate sized syringe.
3. Pinch the NG feeding tube, uncap the NG tube and attach it to the syringe.
4. Release the pinch and use the “push-pause” technique to flush water through the NG tube.
5. Pinch the NG tube, remove the syringe, and recap the NG tube.

## Step 5 - Start the Feed

1. Gently shake enteral formula.
2. Wipe the top of the enteral formula container with a clean wet cloth.
3. Pour enteral formula into feeding bag.
4. If you are on a continuous feed throw out any enteral formula left in the feeding bag and replace with new formula every 4 to 6 hours or as directed by your dietitian.
5. Hang the feeding bag on the IV pole if needed.
6. Plug in and turn on the feeding pump. Attach feeding bag to the pump as you were taught or refer to the pump's instruction manual.
7. Prime the tubing by letting the formula run to the end of the tube. This lets the air out of the tube so that air does not go into your stomach.

**Note:** When priming ENFit™ tubes, stop formula 1 inch before the end of the tube. This will help keep the connection clean.

8. Pinch the NG tube, uncap the NG tube and attach the tip of the feeding bag tubing to the NG tube.
9. Release the pinch and start the feeding pump as taught by your dietitian and/or refer to the pump's instruction manual.
  - Set the **RATE** and **DOSE** on the pump according to your Feeding and Flushing Schedule on pages 4 and 5.
  - Press the **START** button.

## Step 6 - Flush After Feeding

1. Draw up the required amount of water into a syringe.
2. Pinch the NG feeding tube, remove the feeding bag tubing and attach the syringe.
3. Release the pinch and use the “push-pause” technique to flush water through the NG tube.
4. Pinch the NG tube, remove the syringe, and recap the NG tube.

## Step 7 - Clean Up

1. After each feed throw out any enteral formula left in the feeding bag.
2. **Note:** Once the enteral formula can is open it may be covered and stored in the refrigerator for 24 hours.
3. Rinse the syringes and extension sets with clean warm water.
4. Rinse the feeding bag and tubing with clean warm water and allow it to flow through the tube until the tube runs clear.
5. Use a bottle brush or shake the bag back and forth several times to help remove formula from the bag and tubing.
6. Allow supplies to air dry and store them in a clean dry place.
7. Keep the pump plugged in when not using to keep the battery charged.



## Feeding by Gravity

A Gravity feeding is when the feed is placed in a syringe that is attached to the NG tube. When feeding by gravity, you can control the speed of the flow by raising or lowering the syringe above your stomach. Raise the syringe to run the feed faster. Lower the syringe to run the feed slower.

Gravity feeding is useful when feeding smaller volumes or when feeds can be given in under 30 minutes.

Feeding by Gravity		
Step 1	Get Ready	Page 9
Step 2	Check Placement	Page 10
Step 3	Positioning	Page 10
Step 4	Flush before Feeding	Page 10
Step 5	Start the Feed	Page 11
Step 6	Flush After Feeding	Page 11
Step 7	Clean Up	Page 11

### Step 1 - Get Ready

1. Wash your hands well with soap and water.
2. Gather supplies:
  - Feeding syringe and tubing
  - Appropriate sized syringe for water flushes
  - Enteral formula
  - Water for flushes
3. Prepare enteral formula as instructed by your dietitian.  
Check expiration dates.
4. Prepare water for water flushes.
  - Use tap water that is room temperature.







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## Step 2 - Check the Placement

You must check the placement of the NG tube to make sure that it is in the stomach:

- At the time of placement; and
- Before every feeding; and
- Before giving medications; and
- If you are worried the NG tube has come out.

Wash your hands well with soap and water before checking the placement.

 <b>You must see these 2 signs to confirm that the NG tube is in the stomach:</b>	
<b>The centimeter marking</b>	<ul style="list-style-type: none"><li>• The tube was measured and marked at the spot where it should come out of the nose.</li></ul>  If the tube is in the right place, the mark is at your nose.
<b>Stomach fluids</b>	<ul style="list-style-type: none"><li>• Connect appropriate sized syringe to NG tube.</li><li>• Pull back the plunger to bring up 0.5 mL to 1 mL of stomach fluids into the syringe.</li></ul>  If the tube is in the right place, the stomach fluid will look milky, cloudy, or yellow. It may also look like the feed. Gently push the stomach fluids back into the stomach.
	<b>If these 2 signs are not confirmed, DO NOT feed.</b> The NG tube will need to be re-inserted. <ul style="list-style-type: none"><li>• See page 15 for what to do when the NG tube is accidentally pulled out.</li><li>• See page 16 for instructions on how to reinsert the NG tube.</li></ul>

## Step 3 - Positioning

- Sit in an upright and comfortable position in a wheelchair, or kitchen chair for the feeding.
  - ⇒ This will help to stop the feed from entering your lungs (aspiration) and/or acid reflux from happening.
- Have NG tube feed during family mealtimes when possible.
- Keep upright for at least 1 hour after each feeding.

## Step 4 - Flush Before Feeding

1. Wash hands well with soap and water.
2. Draw up the required amount of water into an appropriate sized syringe.
3. Pinch the NG feeding tube, uncap the NG tube and attach it to the syringe.
4. Release the pinch and use the “push-pause” technique to flush water through the NG tube.
5. Pinch the NG tube, remove the syringe, and recap the NG tube.

## Step 5 - Start the Feed

1. Pinch the NG tube, uncap the NG tube and attach to the feeding syringe.
2. While still pinching the NG tube, pour desired volume of breast milk, infant formula or enteral formula into the feeding syringe.
3. Release the pinch.
4. Raise the height of the syringe to speed up the flow. Lower the height of the syringe to slow down the flow.

## Step 6 - Flush After Feeding

1. Draw up the required amount of water into a syringe.
2. Pinch the NG feeding tube, remove the feeding syringe and attach the syringe filled with water.
3. Release the pinch and use the “push-pause” technique to flush water through the NG tube.
4. Pinch the NG tube, remove the syringe, and recap the NG tube.

## Step 7 - Clean Up

1. Rinse the syringes with clean warm water and allow to air dry.

## Feeding Intolerance and Problem Solving

Sometimes you may not tolerate your feed. Try these suggestions to help manage the symptoms. If the symptoms persist or if you are in pain, stop the feed and contact your doctor or go to your local Emergency Department.

Sign or Symptom	How to Manage the Sign/Symptom
<b>Problems breathing</b>	<ul style="list-style-type: none"> <li>• Immediately stop the feed.</li> <li>• Do a NG tube placement check.</li> <li>• Remove the NG tube if placement is not confirmed.</li> <li>• Call your doctor.</li> <li>• <b>CALL 911</b> and remove the NG tube if you are in distress.</li> </ul>
<b>Cramping</b>	<ul style="list-style-type: none"> <li>• Provide formula at room temperature.</li> <li>• Give feeding over a longer period of time.</li> <li>• Open the cap on the tube or extension to let gas out of the stomach.</li> </ul>
<b>Throwing-up or gagging</b>	<ul style="list-style-type: none"> <li>• Give small feedings and feed more often.</li> <li>• Give feedings over a longer period of time.</li> <li>• Open the cap on the tube or extension to let gas out of the stomach.</li> <li>• Keep your head higher than your body.</li> <li>• Stay in an upright position for 60 minutes after feeding.</li> </ul>
<b>Diarrhea</b>	<ul style="list-style-type: none"> <li>• The most common cause of diarrhea is a virus.</li> <li>• A new formula may cause a change in the normal shape, colour, and amount of your stools.</li> <li>• Your dietitian may be able to provide you with other options.</li> </ul>
<b>Constipation</b>	<ul style="list-style-type: none"> <li>• Water flushes may need to be reviewed.</li> <li>• Ask your dietitian about adjusting the calorie concentration of the formula or about formula containing fibre.</li> <li>• Constipation may be related to your medical condition. Ask the doctor, nurse, or dietitian to discuss this with you.</li> </ul>

## Medications and NG Tubes

### Tips for Giving Medication

Use the liquid form of a medication if possible.

- **For capsules:** open capsule and place contents in a cup and dissolve in a small amount of warm water as directed by your pharmacist.
- **For tablets or pills:** place pill or tablet between 2 spoons and crush or use a pill crusher. Place contents in a cup and dissolve in a small amount of warm water as directed by your pharmacist.



- **Do not** mix medications together.
- If you are on multiple medications, flush water between each medication as directed by your healthcare team.

Giving Medication with NG Tube		
Step 1	Get Ready	Page 13
Step 2	Check Placement	Page 14
Step 3	Flush before Medication	Page 14
Step 4	Give the Medication	Page 14
Step 5	Flush After Medication	Page 15

### Step 1 - Get Ready

1. Wash your hands well with soap and water.
2. Gather supplies:
  - Syringe
  - Water for flushing
  - Medication
3. Prepare the medication.
4. Prepare water for water flushes.







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## Step 2 - Check the Placement

You must check the placement of the NG tube to make sure that it is in the stomach:

- At the time of placement; and
- Before every feeding; and
- Before giving medications; and
- If you are worried the NG tube has come out.

Wash your hands well with soap and water before checking the placement.

 <b>You must see these 2 signs to confirm that the NG tube is in the stomach:</b>	
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<b>Stomach fluids</b>	<ul style="list-style-type: none"><li>• Connect appropriate sized syringe to NG tube.</li><li>• Pull back the plunger to bring up 0.5 mL to 1 mL of stomach fluids into the syringe.</li></ul>  If the tube is in the right place, the stomach fluid will look milky, cloudy, or yellow. It may also look like the feed. Gently push the stomach fluids back into the stomach.
	<b>If these 2 signs are not confirmed, DO NOT feed.</b> The NG tube will need to be re-inserted. <ul style="list-style-type: none"><li>• See page 15 for what to do when the NG tube is accidentally pulled out.</li><li>• See page 16 for instructions on how to reinsert the NG tube.</li></ul>

## Step 3 - Flush NG Tube Before Giving Medication

1. Wash hands well with soap and water.
2. Draw up the required amount of water into an appropriate sized syringe.
3. Pinch the NG feeding tube, uncap the NG tube and attach it to the syringe.
4. Release the pinch and use the “push-pause” technique to flush water through the NG tube.
5. Pinch the NG tube, remove the syringe, and recap the NG tube.

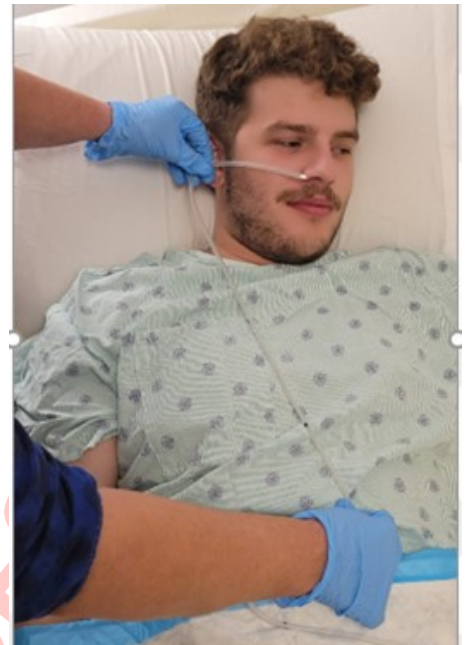
## Step 4 - Give the Medication

1. Pinch the NG tube, uncap the NG tube and attach to the medication syringe.
2. Release the pinch and use the “push-pause” technique to push the medication into the NG tube.
3. Pinch the NG tube, remove the medication syringe and recap the NG tube.



## Reinserting the NG Tube at Home

1. Gather supplies:
  - Nasogastric tube
  - Water soluble lubricant as Mucogel™ or KY™ jelly
  - Adhesive for securing the tube
  - Syringe
  - Water
2. Wash your hands well with soap and water.
3. Wash your hands well with soap and water.
4. Wash the skin around the nose and cheek gently with soap and water and allow to dry completely.
5. Determine appropriate length of feeding tube to be inserted:
  - a. Measure from the tip of the nose to the earlobe, then to xiphoid process of the sternum.
  - b. Mark the estimated length of tube you will need.
  - c. Do not insert tube further than maximum length measured by landmarks.
6. Lubricate tip of the tube with water or lubricant.
7. Sit upright.
8. To assist in the advancement of the NG tube, have sips of water if it is safe for you to swallow liquids.
9. Inset the clean NG tube into the nostril and push down gently until the marked length is reached.
10. Check the placement of the tube to ensure it is in the stomach (see page 14).
11. Use adhesive to secure NG tube to the face.



NG Measurement. SHA [Clinical Standards] 2023.  
Media consent obtained.



NG Securement Inserting NG. SHA [Clinical Standards] 2023. . Media consent obtained.



## NG Tube Care

1. Gather supplies:
  - Clean tap water
  - Gauze
  - Brush (clean toothbrush or ENFit™ specific cleaning tool)
  - ENFit™ feeding Tube
2. Wash your hands well with soap and water.
3. Rinse brush with tap water.
4. Fill syringe with water.
5. Plug center hole of feeding tube port with brush bristles.
6. Forcefully flush moat with water.
7. Rotate brush in bottom of moat.
8. Rinse cap with clean tap water.
9. Insert bristles into feeding tube cap and rotate brush in cap to clean.
10. Wipe feeding tube port and cap with gauze.
11. Clean supplies and allow to air dry.

**Cleaning ENFit™ Feeding  
Ports [Cardinal Health]**



## Preventing the NG Tube from Clogging

- Flush the NG tube with water before and after feeding.
- Flush the NG tube with water before and after giving medication.
- Flush the NG tube with water every four to six hours with continuous feeds.
- If the feeding tube becomes clogged do not insert any objects into the tube. This could result in puncturing the tube.
- If the NG tube clogs often, you may not be flushing your tube frequently enough. Ask the dietitian to review your flushing schedule.
- Some medications can clog the tube. Talk to your pharmacist before giving a new medication to ensure it will not clog the NG tube.

## If the NG Tube Clogs

Attach an empty syringe to the NG tube and gently pull back on the plunger. If you are unable to unclog the NG tube:

1. Remove the NG tube and reinsert new tube if trained to do so.
2. If you are unable to reinsert the NG tube at home, tubes can be reinserted in:

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Bring all supplies needed to reinsert the NG tube with you.

Transcribed information reviewed for accuracy and confirmed by healthcare provider

## Skin Care Around the NG Tube

- Keep the skin around the nose and cheek clean and dry.
- Tape NG tube flat against cheek as it leaves nostril.
- The NG tube must not be pulled up against tip of nostril or nasal mucosa where it can cause irritation and tissue breakdown.
- Check the skin your nose and taped areas.
- If the skin is red or broken down, move the tape or the NG tube may need to be changed to the other nostril.

## Mouth Care with NG Tube

- Good mouth care must be maintained at all times, even if you do not eat by mouth.
- Brush teeth 2 times each day.



[Image](#) by [Bru-nO](#) from [Pixabay](#)

## Finding and Buying NG Feeding Supplies

Your dietitian will help arrange access and coverage, if available, for NG feeding supplies.

For information on when and where to get more supplies, refer to the Supplies Checklist on page 20.

## Buying Enteral Nutrition Feeding Formulas

- Pharmacy of your choice:
  - ⇒ Contact your pharmacist to determine if you can purchase formula and supplies from your local pharmacy. Remember that they may need to special order formula and supplies and will need advance notice of your needs.
- Other locations close to you:

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## Supply Checklist

N/A = Not applicable

✓	Supplies	When to Change	Who to Contact	Where to Buy
	ENFit™ NG Tube	Once a month		N/A
	Syringes (one each) for water flushes, gravity feed and medication	Once a week		N/A
	Pharmacy Cap for each medication bottle	As needed		N/A
	EnFIT™ Straw for drawing up medication	As needed		N/A
	Hypafix® Tape	N/A		Medical Supply Store
	Comfeel® Dressing	N/A		Medical Supply Store
	Water Based Lubricant	N/A		Medical Supply Store
	Feeding Bags	Once a day		
	Feeding Pump	One on loan		
	Backpack	One on loan		
	IV Pole	One on loan		



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***Healthy People, Healthy Saskatchewan***

The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.

**PIER—Patient Information and Education Resource**

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