

Tube Feeding at Home

A Guidebook for Patients and their Essential Care Partners

This guidebook is for: _____

Content adapted from Tube Feeding at Home (BB.210.T79) with permission of Vancouver Coastal Health.

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About Tube Feeding

Tube feeding is a way of giving liquid food (formula) directly into the stomach or small intestine. The opening where the tube enters your body is called a stoma.

Who needs tube feeding?

You might need tube feeding in either of these situations:

- You cannot eat any food by mouth.
- You cannot eat enough food to maintain your health.

How long will I need tube feeding?

Some people need tube feeding only for a short while. Other people might need it for longer. Your healthcare team works with you to decide how long you need tube feeding.

Can I eat or drink while I have a feeding tube?

We check off the situation applies to you.

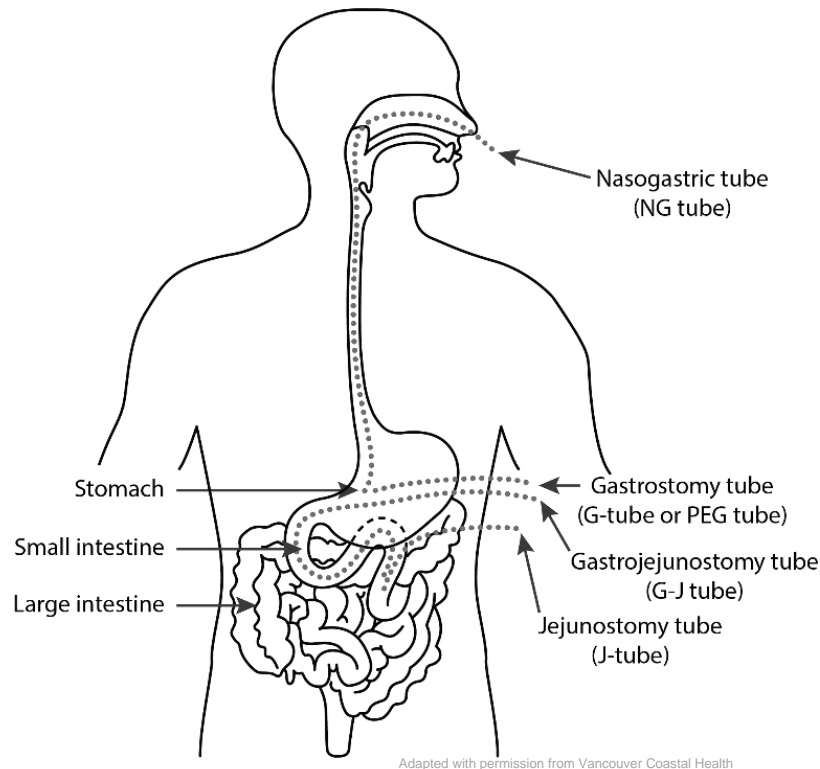
- ☐ Yes, you can eat food or drink fluids by mouth.

Your type of diet: _____

- ☐ No, you should not eat food or drink fluids by mouth.

What kinds of feeding tubes are there?

There are many types of feeding tubes. The tube can enter the body through your nose or abdomen. Where the end is placed depends on the reason for the tube.



- **Nasogastric or NG tube** enters through your nose and ends in your stomach.
- **Gastrostomy or G-tube** enters through your abdomen and ends in your stomach.
- **Gastrojejunostomy or G-J tube** enters through your abdomen into your stomach and ends in your small intestine.
- **Jejunostomy or J-tube** enters through your abdomen and ends in your small intestine.

Your healthcare team helps select the best tube for you.

Your feeding tube details

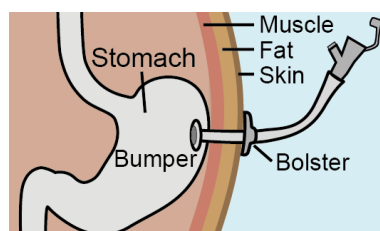
Your tube type ☐ Gastrostomy (G-tube)
 ☐ Gastrojejunostomy ((G-J tube)
 ☐ Jejunostomy (J-tube)

Port to use for feeding _____

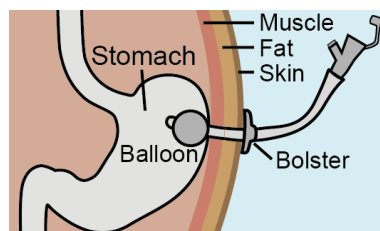
Size and brand _____

How the tube is kept in place

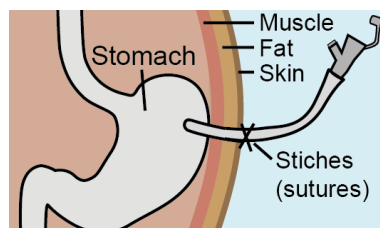
☐ Bumper inside



☐ Balloon inside



☐ Nothing inside
 Stitches outside



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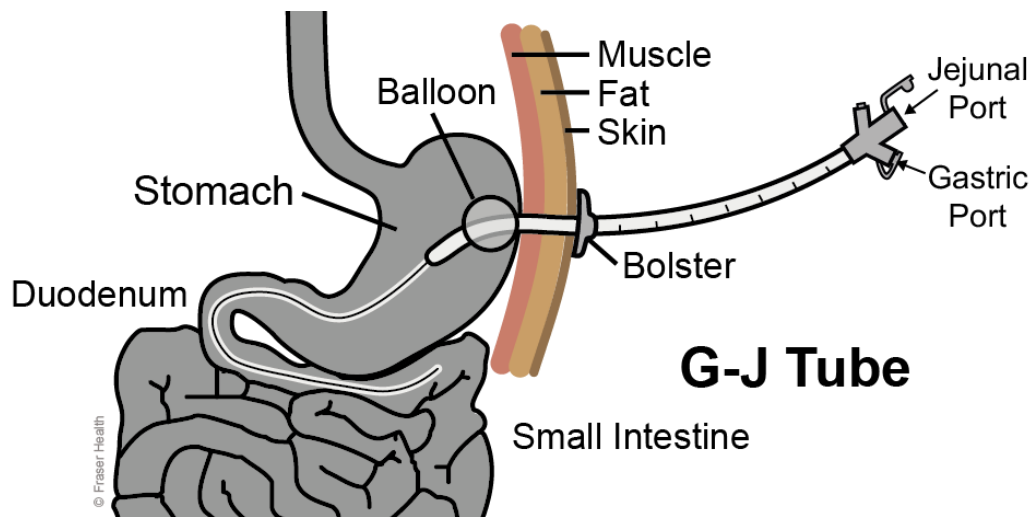
Date tube placed _____

Service that placed the tube _____

Tube position (cm mark at bolster) _____

Balloon volume (mL) _____

Special instructions for Gastrojejunostomy (G-J) Tubes



Gastrojejunostomy tubes have 2 openings. Each ends in a different part of the gut.

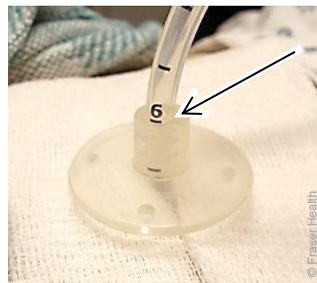
1. **Gastric port** ends in your stomach.
 - Use the gastric port for _____.
 - Flush this port with at least 30 mL of water 3 times a day. This keeps it from clogging.
2. **Jejunal port** ends in your small intestine.
 - Use the jejunal port for _____.
 - Flush this port with at least 30 mL of water 3 times a day. This keeps it from clogging.

Never rotate a G-J tube. This could move it out of place.

Caring for Your Feeding Tube

Checking your tube's position

Your bolster is a piece of silicone. It holds your tube in place. The number you can see just outside the bolster is the tube position. It is best to check the number when you are sitting.



Things to remember

- Always check the position of your feeding tube **before** using it for feeding or for taking medicines.
- The tube position should not change on its own.
- If the feeding tube moves by more than 1 inch (2.5cm), go to your nearest hospital to have tube placement checked.

Note: If you have a J-tube, the position should not change at all.

Checking the bolster

The space between the bolster and your skin should be about the thickness of a dime (1 to 2 mm).

- If it is **too tight**, it can put pressure on the skin. This can irritate your skin and cause the skin to breakdown.
- If it is **too loose**, the tube may move in and out of the stoma. This can irritate the stoma inside and out.

Rotating your tube – **G-Tubes only**

Rotating the G-tube helps keep the skin from sticking to the tube and keeps your stoma healthy.

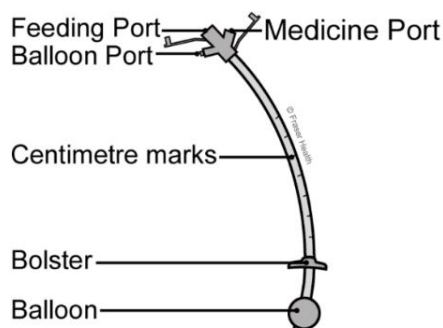
- Rotate the tube every day.
- To rotate, gently turn the tube all the way around plus another one quarter turn (360° plus a ¼ turn).

Note: Never rotate the tube if you have a G-J tube or a J-tube.
Never rotate the tube if the tube is stitched in place.

Checking your balloon volume

This section only applies if you have a balloon holding your feeding tube in place.

The balloon was filled with a certain amount of water. This is the balloon volume in millilitres (mL).



1. **Start checking the balloon volume 4 weeks (28 days)** after your tube is put in, unless you are told something different by the doctor who put in the tube.
2. **Then** check the balloon volume **every 7 days**, or as directed by the doctor who put in the tube.

How to check the balloon volume:

1. Open the balloon port.
2. Attach a 10 to 30 mL slip tip or Luer lock syringe to the balloon port.
3. Gently pull back on the plunger to remove the water from the balloon.
4. Compare how much water is in the syringe with how much the balloon volume is supposed to be (your prescribed volume).
 - a. If the volume is **the same as your prescribed volume**:
 - Push the plunger in to refill the balloon with the water from the syringe.
 - Close the port.
 - b. If the volume is **less than your prescribed volume**:
 - Throw away the water and the syringe.
 - Fill a clean syringe with the prescribed volume. Use distilled, sterile, or cooled boiled water. Do not use normal saline, mineral water, or tap water.
 - Attached the syringe to the balloon port.
 - Refill the balloon.
 - Close the port.
 - Check the volume again in 15 minutes. If there is less water than your prescribed volume again, there could be a leak and the tube needs to be changed. Contact your doctor to do this.



Note: Be careful not to pull on the tube while checking the balloon volume. The tube could fall out.

Caring for Your Stoma, Skin, and Mouth

The opening on the outside of your stomach where the feeding tube enters your body is called a stoma (say *stow-mah*).

Cleaning your stoma and skin

Every day, clean your stoma and the skin around the stoma to keep your skin from getting irritated and getting sores.

Never use alcohol or hydrogen peroxide to clean around your stoma. These can irritate your skin.

Steps for cleaning in the first 7 days:

1. Gather your supplies:
 - 3 to 4 sterile gauze pads
 - clean bowl
 - normal saline or sterile water
 - new bandage, if needed
 - tape, if using
2. Wash your hands.
3. If you have a bandage, remove it and place in the garbage.

Note: You do not need a bandage around the tube unless there is fluid draining from around the stoma. Bandages create a warm and moist place for bacteria to grow.
4. Pour warm normal saline or sterile water into the bowl.
5. Moisten a clean gauze pad in the saline or water.
6. Gently clean under the bolster with the moist gauze pad.
 - Wipe around the tube in a circle.
 - Start closest to the tube and work outward.
 - Be careful not to pull on your tube.
7. Wipe the outside of the tube with a moistened clean gauze pad.
8. Gently pat your skin dry with a clean gauze pad.
 - Dry under the bolster as well.
9. Allow your skin to air dry for a few minutes before covering with clothing.
10. If you use tape to hold the tube in position, try to change where you place the tape. Taping over the same patch of skin each time can irritate your skin.

Steps for cleaning after 7 days:

1. Gather your supplies:
 - cotton swabs - clean soft towel - mild liquid soap
 - clean soft cloth clean bowl - tape, if using
2. Wash your hands.
3. If you have a bandage, remove it and place in the garbage.
4. Mix warm tap water with a small amount of soap in the bowl.
5. Moisten a cotton swab with the soapy water.
6. Gently clean under the bolster with the cotton swab.
 - Wipe around the tube in a circle.
 - Start closest to the tube and work outward.
 - Be careful not to pull on your tube.
7. Clean the outside of the tube with the cloth and the warm soapy water.
8. Gently pat your skin dry with the soft clean towel.
 - Dry under the bolster with a clean cotton swab.
9. Allow your skin to air dry for a few minutes before covering with clothing.
10. If you use tape to hold the tube in position, try to change where you place the tape each time. Taping over the same patch of skin each time can irritate your skin.

Taking a bath or shower with a stoma

For the first week after surgery, or when the stoma has not yet completely healed, cover the stoma with a waterproof bandage or plastic wrap before showering.

Starting the second week after surgery, you do not need to cover your stoma.

If you would like to take a bath, keep your stoma above water for the first 2 weeks.

If you would like to go swimming, wait at least 1 month or until your stoma is completely healed.

Caring for your mouth

Clean your mouth at least 2 times every day. This helps reduce the bacteria in your mouth and lessens the chances of a lung infection.

Cleaning includes brushing your teeth and flossing your teeth 2 times a day, usually morning and evening.

You might get special instructions to use an alcohol-free mouthwash or water-based gel to keep your mouth and lips moist.

Taking Care of Your Tube Feeding Supplies

Keeping formula safe

Tube feeding formula comes in bags (ULTRAPAK®) and containers (TetraPak®, bottles, pouches, or cans).

- Keep unopened formula in a dry place at room temperature.
- Check the expiry date before opening your formula.
- Throw away any formula past its expiry date.
- When you open your formula, label it with the date and time you opened it.

You can keep **opened bags** (ULTRAPAK®) at room temperature or in the fridge for up to 48 hours. Throw away any formula left after 48 hours.



Example: ULTRAPAK®

You can keep **opened containers** (TetraPak®, bottles, and cans) either at room temperature or in the fridge.

- At room temperature for up to 8 hours.
Throw away any left after 8 hours
- In the fridge for up to 24 hours.
Throw away any left after 24 hours.



Example: TetraPak®

Using open feeding bags with a lid

Replace your feeding bag and tubing every 24 hours as indicated in the manufacturer's instructions. Place the used set in the garbage.

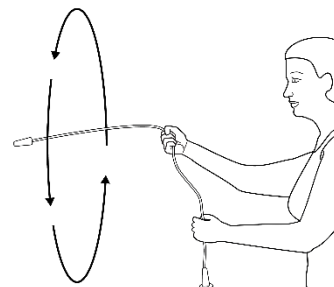
You have 3 choices for keeping your feeding bags safe between feedings.

1. Keep the bag in the fridge between feedings.
2. Wash the bag and tubing after each feeding.
3. Use a new feeding bag with each feeding.



To wash and dry your bag

- Wash with warm water and dish soap.
- Rinse and drain the water from the bag.
- Spin the tubing to drain the water.
If you have a **pump**, you can use the prime button to remove the soapy water.
- Wrap the clean bag and tubing in a clean, dry dishtowel and place in the fridge.



Using feeding pump spike sets

Spike sets are used for feeding bags that are closed. This means they do not have a lid. Spike sets are used only with a pump.

Always use a new Spike Set for each new bag of formula.

- Do not try to clean Spike Sets.
- Do not reuse Spike Sets.

Cleaning syringes

You will need at least 2 syringes.

- Use one syringe for water flushes and another one for medicines. This helps keep the tube from getting clogged.
- If you are feeding using the **syringe method**, use a 3rd syringe for the formula.
- Wash your syringe barrel and plunger separately using dish soap and warm water.
- Let them air dry.

Place used syringes in the garbage when they are no longer working or as advised in the manufacturer's instructions.

Using Lopez Valves™

The hospital uses Lopez Valves™ (also called stopcocks). They can be easier to use rather than clamping or pinching the tubing. We do not recommend them for use at home because they are very hard to clean. This makes it more likely for bacteria to grow and could make you sick.

Ask your dietitian or nurse about options for controlling the flow of formula.

If you do choose to use Lopez Valves™ at home, replace the valve at least every week and more often when it looks dirty.

Planning for emergencies

Always keep a supply of formula and tubing supplies on hand in case of an emergency.

If you use a feeding pump, ask your dietitian to teach you how to feed using gravity bags or with a syringe. You might need to switch to one of these methods in case of a power outage or if your pump stops working.

Replacing the feeding tube

No matter what kind of feeding tube you have, it will need to be replaced. There isn't a specific time when tubes need to be replaced. Every situation is different.

You might need the tube replaced in any of these situations:

- The tube is cracked or broken.
- The tube collapses in on itself or looks warped.
- You find it harder to flush the tube or it takes much longer than usual to give your feed.
- The tube is blocked and you can't unblock after following the "Unclogging Your Feeding Tube" instructions on page 15.
- You see new or more drainage from your stoma
- Your balloon is leaking after following the "Checking your balloon volume" instructions on page 6.

Emergency situation

If your feeding tube falls out, the stoma can close quickly.

Go to the nearest Emergency Department within 2 hours of the tube coming out.

Bring your old tube with you if possible.

Replacing a Tube with a Balloon (Placed by a radiologist in X-ray Imaging)

If you have a tube with a balloon, ask your doctor to fax a request for a tube change to the Interventional Radiology department in one of these hospitals:

- Abbotsford Regional Hospital
- Burnaby Hospital
- Royal Columbian Hospital
- Surrey Memorial Hospital

Replacing a PEG Tube (Placed by a surgeon in the Operating Room)

If you have a PEG tube, ask your doctor to refer you to an endoscopy clinic. The clinic will arrange for the tube to be replaced.

Taking Medicines

If safe to do so, take your medicines by mouth.

If this is not possible:

- Ask your pharmacist if it is safe to take your medicines through a feeding tube.
- Tell your healthcare team that you take your medicines through your tube.

Steps for taking medicines through your feeding tube

1. Take only one medicine at a time.
2. a) For liquid medicine
 - Measure the prescribed amount in a small cup.
 - Mix the medicine with 15 mL (1 tablespoon) of warm water.b) For tablets and caplets
 - Crush the tablet or caplet into a powder.
 - Dissolve the powder into 15 to 30 mL (1 to 2 tablespoons) of warm water.
3. Fill a clean syringe with the medicine-water mixture.
Set this medicine syringe aside.
4. Using another clean syringe, flush your feeding tube with 15 to 30 mL of warm water.
5. Insert the end of the medicine syringe into the Medicine Port and push the medicine into your tube.
6. When taking more than one medication at a time, flush your tube with 5 mL of warm water in between each medicine.
7. When finished taking your medicine, flush your tube with 30 mL of warm water.

There might be easier ways for you to take your medicine. Talk to your pharmacist about options that might help you.

General advice for taking your medicines safely

- To crush your pills, you can use either a pill crusher or a mortar and pestle. Buy a pill crusher from your local pharmacy or medical supply store.
- Check with your health care provider before taking any of these through your feeding tube:
 - herbal preparations
 - fibre supplements
 - vitamin and mineral supplements
- Do not mix medicines with any of these:
 - formula
 - medicines for indigestion and heartburn (antacids)
 - vitamin supplements containing iron, calcium, or magnesium
- Liquid medicines can cause diarrhea if they are not mixed with water. Speak with your family doctor or pharmacist about liquid medicines.
- Flush your tube at these times to keep the tube from clogging:
 - before taking medicines
 - between each medicine if you take more than one at a time
 - after taking medicines

Unclogging Your Feeding Tube

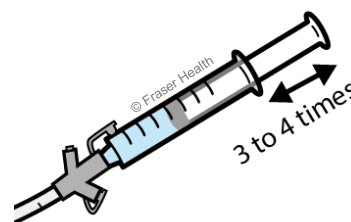
Why feeding tubes clog and how to prevent it

Why feeding tubes clog	How to prevent it
Formula and medicines mix in the tube	Use separate syringes for water flushes and medicines. Keep your syringes clean.
Medicines are not crushed into a fine powder	Speak with your pharmacist about pill crushers or switching to a liquid form of the medicine.
Feeding tube is not flushed correctly	Flush your tube regularly. Flush with the amount of water recommended

Anytime you have a clogged tube, always try to unclog it with warm water first.

Using water to unclog the feeding tube

1. Fill a syringe with 15 to 25 mL of warm water.
2. Insert the end of the syringe into the Feeding Port.
3. Push and pull the syringe's plunger 3 to 4 times while keeping hold of both the syringe and tube until you can push the water into the tube.
4. If this does not unclog the tube, use an unclogging kit.

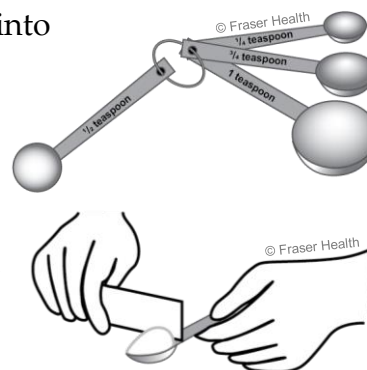


Using an unclogging kit

1. Crush one 325 mg tablet of sodium bicarbonate into a powder.

If you don't have sodium bicarbonate tablets, measure 2 mL ($\frac{1}{2}$ teaspoon) of baking soda (another form of sodium bicarbonate).

Make sure you use a measuring spoon and level off the top. Don't use one of the spoons you use for eating.



2. Add the powder to a small dish or medicine cup.
3. Open one pancreatic enzyme capsule (for example Cotazym ECS 8®). Mix the contents of the capsule in with the sodium bicarbonate powder.
4. Add 5 mL of warm (not hot) water to dissolve the enzyme and powder.
5. Fill a 30 mL syringe with the dissolved enzyme and powder mix.
6. Attach an empty syringe to the Feeding Port.
7. Pull back on the plunger of the syringe to remove as much fluid as you can from the feeding tube. Throw this fluid away.
8. Attach the syringe with the dissolved enzyme and powder mix to the Feeding Port.
9. Push down on the syringe's plunger to put this mix into the feeding tube.
10. Close or clamp the Feeding Port closed, or leave the syringe attached.
11. Wait 30 minutes.
12. Now flush the feeding tube with 30 mL of tap water.
13. If the feeding tube does not flush, repeat steps 1 to 9.

If the feeding tube still does not flush after repeating steps 1 to 9 and you have checked that the tube isn't kinked, the tube needs to be replaced. (See "Replacing the feeding tube" on page 12.)

Troubleshooting Your Feeding Tube

Here are some problems that a person could have with a feeding tube. We suggest ways that could help.

Note: Anytime you change your feeding schedule (dose, rate, or water flushes), contact your dietitian to make sure you are still meeting your nutrition needs.

Problem	What to do
Stomach fullness Gas Bloating Cramping	Try any of these actions: <ul style="list-style-type: none"> • Slow down the feeding rate. • Stop feeding for 1 to 2 hours and then try again. • If using opened formula from the fridge, take it out 30 minutes before your feeding. • Talk to your dietitian about trying a different type of formula or changing your schedule.
Sick to your stomach (nausea) Throw up (vomit) Heartburn (reflux)	Try any of these actions: <ul style="list-style-type: none"> • Stop your feed. Wait 1 to 2 hours. If your stomach feels better, restart the feed. • Slow down the feeding rate. • Sit upright or lie at a 45 degree angle during the feed and for at least 30 minutes after the feed. Call your family doctor in any of these situations: <ul style="list-style-type: none"> ▪ Your nausea or vomiting continues for more than 24 hours. ▪ You cannot follow your tube feed schedule. This is especially important if tube feeding is your only source of fluid and you are not able to drink fluids. <ul style="list-style-type: none"> ▪ You have signs of dehydration. (See Dehydration section.)
Constipation Having bowel movements less often than are separate hard lumps and difficult to pass	Try any of these actions: <ul style="list-style-type: none"> • Increase how much water you flush through the tube each day. • Ask your dietitian about increasing fluid, fibre, or both to feeds. • Talk to your family doctor or pharmacist about medicines that could help. • If possible, increase your physical activity level.
Feeding tube falls out	Do not try to put it back in yourself. Cover your stoma with a clean gauze pad. Go to the nearest Emergency Room within 2 hours of the tube coming out.

Problem	What to do
<p>Aspiration Accidentally breathe formula or water into your lungs Signs to watch for:</p> <ul style="list-style-type: none"> - coughing or choking - wet, gurgly voice - wheezy breathing - lips turn white, gray, or blue 	<p>Do both of these actions:</p> <ul style="list-style-type: none"> • Stop tube feeding immediately. • Sit upright and cough until you can breathe easily. <p>If signs do not go away and you continue to have trouble breathing, go to the nearest Emergency Room or call 9-1-1.</p>
<p>Diarrhea Bowel movements are more often and loose or watery for at least 2 days</p>	<p>Try any of these actions:</p> <ul style="list-style-type: none"> • Slow down the feeding rate. • Increase how much water you flush through the tube each day so you keep from getting dehydrated. • Ask your dietitian about adjusting how much fibre you have. <p>Call your family doctor in any of these situations:</p> <ul style="list-style-type: none"> ▪ You have more than 5 watery bowel movements in 24 hours. ▪ You see blood in your stool (poop). ▪ You have really bad pain in your abdomen. ▪ You have signs of dehydration. (See Dehydration section.) <p>Note: If you are on chemotherapy, it can cause diarrhea. Check with your cancer doctor (oncologist) if you have questions or concerns.</p>
<p>Dehydration Signs to watch for:</p> <ul style="list-style-type: none"> - small amounts of dark yellow urine - more thirsty - sudden loss of weight - dizzy when stand up or sit up 	<p>Increase how much water you flush through the tube each day.</p> <p>If you continue to have any signs of dehydration after increasing your water flushes, call your family doctor or dietitian.</p>
<p>Leaking around the stoma Skin around the stoma irritated</p>	<p>Try any of these actions:</p> <ul style="list-style-type: none"> • Give the flushes slowly and gently. • Follow the directions for cleaning your stoma each day. • Clean your stoma more often. <p>Call your family doctor if you notice any of these signs of infection:</p> <ul style="list-style-type: none"> ▪ The skin around the tube is hot, red, swollen, and hurts. ▪ There is thick, cloudy fluid coming from the stoma. ▪ There is white or yellow-green fluid coming from the stoma.

Did you know?

- You might have options for other feeding methods.
- There are different brands and sizes of syringes available.
- There are tubes that don't have long tubing outside of the body.
- You might be able to make your own formula with blended foods.
- There might be products or accessories that can make your tube more comfortable.
- There are devices that can help you be more independent with your tube feeding.
- There are about a half a million people in North America who tube feed. You are not alone!

Your tube feed plan **can** be changed. If you would like learn about other options, contact your dietitian.

Your tube feed plan should respect your lifestyle and what is best for you. We want you to be happy with your tube feeding arrangements at home.



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This information does not replace the advice given to you by your healthcare provider.

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