

# Nasogastric Tube Feeding at Home

A Guidebook for Patients and Caregivers

**This guidebook is for**

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**Date**

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## Who to call for help and important contact information

If you have:	You should call:
<p>Issues tolerating your tube feed. formula or feeding schedule.</p> <p>Weight loss or weight gain.</p> <p>Questions about tube feeding supplies or feeding pump.</p>	<p>Your dietitian</p> <p>_____</p> <p>Monday – Friday: 8:30am – 4:00pm</p> <p><b>Call:</b> _____</p>
<p>Concerns about your feeding tube site, skin irritations, medications, blocked or clogged tube or side effects from treatment.</p>	<p><b>Provincial Nurse Line</b></p> <p>Available 24 hours a day, 7 days a week</p> <p>Contact a nurse by using one of the options below:</p> <ul style="list-style-type: none"> <li>• Call our Provincial Nurse Line at 1-833-818-ONCO (6626)</li> <li>• Go to <a href="http://www.bccancer.bc.ca/">http://www.bccancer.bc.ca/</a></li> <li>• Scan this QR code:</li> </ul> <div data-bbox="971 1129 1300 1461" data-label="Image"> </div> <p>Look for this icon: </p> <p>Type your question or department you would like to reach into the pop-up chat box. The digital agent will connect you with the department who can help.</p>



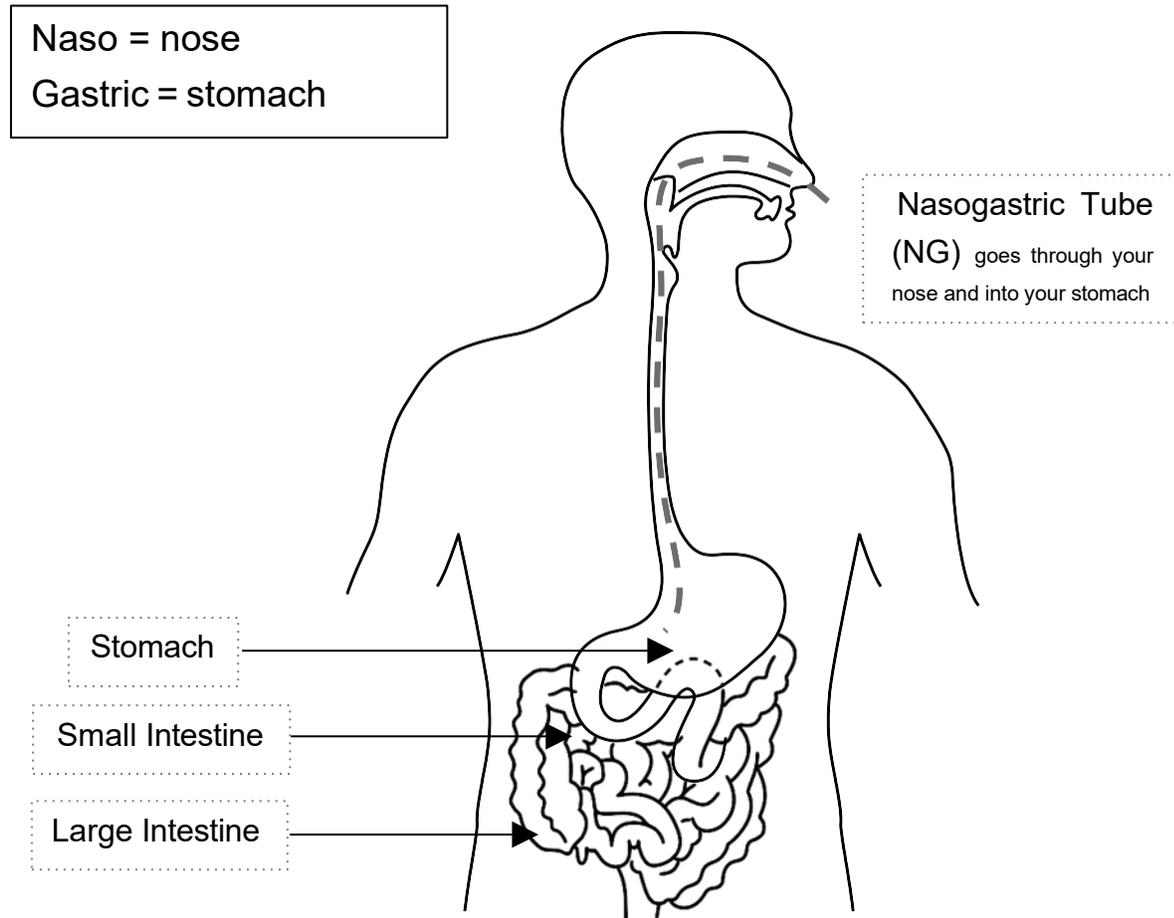


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## What is tube feeding?

Tube feeding is a way of giving liquid food (formula) directly into your stomach or small bowel. This liquid food provides your body nutrients needed for good health. Tube feeding provides total nutrition for people who cannot eat at all or extra nutrition for people who cannot eat enough regular food.



## About your nasogastric feeding tube

This tube enters through the nostrils. It goes down the esophagus into the stomach. The position of its tip determines its name. The diagram above gives a general idea of what the tube looks like and where the tip is placed.

## **How long can this tube stay in place?**

Many things affect how long the tube lasts. These include how it is used and cared for, what it is made from and your own body chemistry. The tube is replaced if it becomes blocked or if it comes out by accident.

## **Why do I need a feeding tube?**

If you are not able to eat or drink enough and are losing weight, you may need a tube for feeding.

There are different reasons why it may be difficult for you to eat or drink enough:

- A blockage in your throat or stomach due to cancer
- Severe side effects of cancer treatment such as a sore mouth or throat
- Damage to the muscles and nerves which prevents you from swallowing properly and safely

## **What are the benefits of a feeding tube?**

- Help you to meet your calorie and protein needs to maintain weight.
- Help maintain your energy and strength.
- Improve your well-being and quality of life.
- Gives you another way to take your medicines and fluids.
- Less frustration and discomfort when trying to eat.

## **What are the risks and challenges of a feeding tube?**

- A bit of discomfort when the tube is first put in.
- Irritation or infection at the tube site.
- Tube may move out of place and need to be put back in.
- Regular blood tests.

## **How are the tube feedings given?**

The tube feedings are usually divided into 3-5 small feedings throughout the day. The tube is flushed with a small amount of water before and after each feed. Each feeding will take about 15 minutes to 2 hours depending on the amount of formula and water you need.

## **Will I be able to eat or drink while I have a feeding tube?**

Your healthcare team will assess if it is safe for you to eat or drink. If it is safe and comfortable for you to swallow, you can continue to eat and drink small amounts during or between the tube feedings. Your tube feeding schedule will be based on your ability to eat or drink, your daily routine and your goals of care.

## **How to prevent infections**

Infections are caused by harmful bacteria or other small organisms entering and growing in the body. Here are some simple, but important steps you can take to reduce the risk of infection: hand washing, clean work area, proper storage of feeding supplies and equipment.

## **General steps to reduce food related illness**

1. Wash your hands before and after touching the feeding tube or site and giving the feeding.
  - Turn on water and adjust water temperature. Wet wrists and hands.
  - Use bar or liquid soap. Rub soapy lather between fingers, under nails, over palms and back of hands.
  - Point hands downward and rinse soap off hands and wrists.
  - Dry hands with clean cloth or paper towel. Then use the cloth or paper towel to turn off the tap.
2. Store supplies and unopened formula in a dry, clean, insect-free area, off the floor. Use a cabinet or closet with a door. If you think any supplies are dirty, clean them again or replace them.
3. Clean work area – table, counter- top or tray. Use a clean cloth or paper towel, soap, and water to clean daily and whenever dirty.
4. Avoid coughing, sneezing, and smoking while handling tube feeding supplies.

## **Mouth care**

- Brush your teeth with a soft brush at least twice a day with fluoride containing toothpaste
- Swish and spit with alcohol-free mouthwash every 4 hours between brushings
- Keep your lips moist using water- based lip moisturizers (do not use petroleum jelly)

## Nasogastric (NG) feeding tube site care

Checking the position of your nasogastric tube is an important part of daily tube feeding. Keeping the tube in the correct position helps make sure that you receive tube feeding in the best way. To help reduce irritation, clean your nostrils, and change the tape regularly.

### How to check the position of the NG feeding tube

- Measure the length of tube from the tip of the nose to the end of the feeding tube. This distance is \_\_\_\_\_ cm. Measure daily and if the length of the tube changes by more than 2.5 cm, notify your oncology care team.
- Check the back of the throat to be sure that the tube has not curled into the mouth.
- Other \_\_\_\_\_



### Securing the NG feeding tube

- Change the NG securing device whenever loose
- Wash the skin with soap and water; rinse and dry well
- Do not use any lotions or emollients as the residue will interfere with the adhesion of the device
- You may use special skin prep as directed by your health care team to prevent damage to the skin under the device
- Look for signs of redness, bleeding, sores or numbness of the nostrils
- Clean the edges of both nostrils with a cotton tipped swab and warm water
- While holding the tube in place, unwrap the device using the non-adhesive tab at the end of the tail.



## Reapplying the new securement device:

**Step 1** – Apply skin prep on to nose as directed and allow to dry.

Remove the top liner from the securement device to expose the adhesive.



**Step 2** – Place the device on side of the nose where tube is inserted. Center over the naris and place device onto nose. Ensure device is fitted to conform to crevice in nose. Apply firm pressure on device to enhance adhesion to skin.



**Step 3** – Remove the bottom liner from the securement device to expose the adhesive. Place tube in alignment with the vertical tail of the securement device. Apply firm pressure on the device to enhance adhesion to tubing.

**NOTE:** Attachment device should be monitored regularly to ensure barrier adhesion to the nose.



Images in this section taken from: [https://www.3m.com/3M/en\\_US/p/d/b5005365000/](https://www.3m.com/3M/en_US/p/d/b5005365000/)

**Step 4** -Wrap the horizontal part of the tail in a spiral fashion around the tube. Apply firm pressure to the device to enhance adhesion.

**NOTE:** Do not wrap the tail of the 3M Nasogastric Securement Device too tightly or closely to the naris as this could lead to medical device-related pressure injury.



**Step 5** Optional. To secure tube to cheek, place tape or film dressing over the tube so that the inside sticks together for a narrow section. Then place the ends on the cheek. Use a different place on the cheek each time to reduce skin irritation.



- After securing the tube, you can drape the tube over the ear to keep it out of the way, or using a tape tab, loosely pin the tube to the shirt.
  - Other \_\_\_\_\_
-

## Flushing your feeding tube

Flushing your tube with water is important to keep your tube clean and prevent blockage.

### How do I flush my feeding tube?

- Fill a 60 mL syringe with lukewarm water.
- Twist the tip of the syringe securely into feeding tube.
- If you have a clamp or stopcock on your tube, open it.
- Push down on the plunger until the syringe is empty.
- Close the clamp or stopcock or pinch your tube.
- Remove syringe, close the cap on your tube.

### How often do I flush my feeding tube?

- Flush your tube with at least 60 mL of water before and after each tube feed to prevent blockage or clogging.
- Flush your tube before and after each medication. If you are taking more than one at a time, flush between each medication. Do not mix medications.
- If you are on continuous feeds with a pump, flush your tube every 4 hours.
- If you are not using your tube for feeding or medications, flush your tube with 60 mL of water at least twice a day.
- Your dietitian may ask you to flush more often or with more water to help meet your fluid needs. It is important to follow your tube feed schedule.

## General instructions for your feeding tube and medications

1. **Long-acting medications and tablets** with a special coating cannot be crushed. Check with your pharmacist to make sure that each of your medications can be crushed.
2. **Avoid** Bulk-forming medications such as Metamucil because they quickly thicken when mixed with water and can clog the feeding tube.
3. **Never** mix medications with antacids or vitamin supplements containing iron, calcium and/or magnesium.
4. **Check** with your dietitian before giving any herbal preparations or vitamin/mineral supplements through your feeding tube.
5. **Liquid medications** may cause diarrhea.
6. **If safe** to do so, take medications by mouth. Check with your doctor or speech language pathologist (SLP) if you can do this.

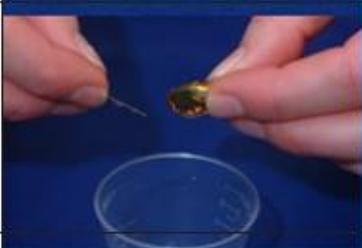
## **Safety tips when preparing and taking your medications**

- Take your medications one at a time, and never mix them together.
- Do not mix medications with formula as this can cause formula to curdle and clog the feeding tube. It may also decrease the action of the drug.
- Flush the tube before and after giving medication to clean to prevent blockage.
- Check with your pharmacist whether you should take medications on a full or empty stomach.

## **Preparing your medications**

### **1. Wash your hands and collect the following items:**

- Medications
  - 1 (60ml) clean ENFit syringe for water flushes
  - 1 (12ml) ENFit clean syringe for medications
  - 1 clean large cup of warm tap water
  - 1 Pill crusher OR mortar and pestle (You can buy pill crushers from medical supplies stores and pharmacies)
  - 1 clean small dry cup
2. Stop your tube feed while delivering medication (if you are taking medications during a feeding time).
  3. Prepare medications as described in the table on the next page.

Form of Medication	Method of Preparation	
Liquid	Place into a cup	
Tablet	Crush tablet into a <u>fine</u> powder using your tablet crusher or mortar and pestle. Place into a small cup.	
Capsule with powder inside	Pull capsule apart and place contents into a small cup.	
Capsule with liquid inside	Poke a pinhole in one end of the capsule and squeeze contents out into small cup.	
Capsule with granules	This may clog your tube. Speak to your pharmacist before putting through your tube.	

- Using the warm tap water from a cup, mix medications with 15-30 mL water in the small cup. Make sure medications are completely crushed and dissolved in water before drawing into the syringe.
- Draw medication into the ENFit syringe, and make sure no medication is left behind in the cup.
- Using a second ENFit syringe (non-medication syringe) FLUSH the tube vigorously with 15-30 mL of warm tap water.
- Insert the ENFit syringe containing the dissolved medication (from Step 5) into your feeding tube and push the medication/water mixture into your tube. If you are taking more than one medication at a time, flush your tube with 15 mL of water in between each medication.

8. Using the non-medication ENFit syringe FLUSH the tube vigorously with 15-30 mL water after the last medication is given.
9. Restart your tube feed according to your schedule.

## Possible problems with your feeding tube

<b>Blocked or Clogged Feeding Tube</b>	
<b>Signs</b>	<b>Prevention</b>
<ul style="list-style-type: none"> <li>• Difficulty flushing tube with water</li> <li>• Unable to start feed</li> <li>• Formula leaking</li> </ul>	<ul style="list-style-type: none"> <li>• Follow your water flushing schedule</li> <li>• Follow instructions on how to administer medications and formula through the feeding tube</li> </ul>
<b>What to do if this happens</b>	
<ul style="list-style-type: none"> <li>• Check feeding tube and feeding set to make sure the tubing is not bent or kinked.</li> <li>• Attach a 10 mL, 20 mL or 30 mL (if you do not have these size syringes use whatever you have available) syringe to the end of your feeding tube. Pull back on the syringe plunger to withdraw any formula from inside the tube. Repeat several times.</li> <li>• Using the syringe, flush your feeding tube with lukewarm water. Pump the syringe plunger gently back and forth. Repeat several times.</li> </ul>	
<b>If the tube is still clogged</b>	
<ol style="list-style-type: none"> <li>1. Gather ½ teaspoon baking soda and 1 capsule of pancreatic enzyme (Cotazym prescription)</li> <li>2. Open the Cotazym capsule and empty into a small cup with the baking soda. Add 15 mL of warm water to dissolve medication.</li> <li>3. Draw the solution into a 50 mL or 60 mL syringe. Insert the medication syringe into your feeding tube and gently push down on the plunger repeatedly. Once the solution is in your feeding tube, remove the syringe and cap the feeding tube.</li> <li>4. Wait 30 minutes.</li> <li>5. Flush feeding tube with 50 or 60mL of warm water. Push the plunger quickly.</li> </ol>	
<b>Call the Telephone Nurse Line if your tube remains blocked.</b> _____	

## Stomach Fullness, Bloating or Reflux

Causes	Prevention
<ul style="list-style-type: none"> <li>• Too much formula taken at once</li> <li>• Taking formula too fast</li> <li>• Air in your stomach or intestine</li> <li>• Constipation</li> <li>• Start tube feeds right after eating by mouth</li> <li>• Medication</li> </ul>	<ul style="list-style-type: none"> <li>• Follow your feeding guidelines</li> <li>• Try to limit air while administering feeds or flushes</li> <li>• Manage constipation</li> <li>• Take medications as prescribed</li> </ul>

### What to do if this happens

- Slow down the rate of your feeding.
- Take a 5–10-minute break halfway through your feeding.
- Always sit upright for at least 30 minutes after tube feeding.
- Do light physical activity such as standing or walking if able.
- Talk to your dietitian or care team if this is a recurring problem.

## Constipation

Causes	Prevention
<ul style="list-style-type: none"> <li>• Medications</li> <li>• Not getting enough fluid</li> <li>• Decreased activity</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the recommended feeding and flushing schedule</li> <li>• Increase movement if able</li> </ul>

### What to do if this happens

- Talk to your health care team or call nursing telephone line about recommended bowel medications.
- Ask your dietitian about your feeding and flushing schedule.
- Let your health care team know if you have not had a bowel movement in 3 days or have severe abdominal pain.

## Diarrhea

When you have more than two loose or watery stools (“poops”) each day.

Causes	Prevention
<ul style="list-style-type: none"> <li>• Medication or treatment changes</li> <li>• Unclean or contaminated hands, equipment, or formula</li> <li>• Illness</li> <li>• Feeding rate is too fast</li> <li>• You may be sensitive to cold formula</li> </ul>	<ul style="list-style-type: none"> <li>• Follow your feeding schedule</li> <li>• Ensure all tube feeding supplies are clean</li> <li>• Wash hands well before feeding</li> <li>• Do not hang formula for more than 12 hours (unless you are using a closed system)</li> <li>• Do not use formula that is expired</li> </ul>

**What to do if this happens**

- Talk to your care provider or pharmacist about your medications.
- Slow down feeding rate.
- Trial formula at room temperature.
- Increase water flushes before and after feeds.
- Ensure you are following proper hand hygiene and clean supplies and equipment.
- Call the nursing telephone line if:
  - If you have more than 3 watery stools in 24 hours.
  - If you have blood in your stools.
  - If you have severe abdominal pain.
  - If you have signs of dehydration (see dehydration section).

**Nausea and Vomiting**

Tube feeding should not cause nausea and vomiting

**Causes**

- Medications
- Changes to your treatment
- Unclean or contaminated hands, equipment for formula
- Illness
- Constipation
- Too much formula taken at once
- Feeding rate is too fast

**Prevention**

- Use prescribed medication for nausea or vomiting
- Follow your feeding schedule
- Wash your hands well before handling formula or equipment
- Follow instructions for cleaning supplies
- Keep your head elevated or sit upright while feeding
- Manage constipation

**What to do if this happens**

- Use recommended medication for nausea or vomiting 30 minutes prior to starting your tube feed.
- Take a break from your tube feed.
- Do not administer your tube feed if you are vomiting.
- Restart your tube feeding when you are no longer vomiting, and you have checked that the placement has not moved.
- Call the nursing telephone line if:
  - Your nausea or vomiting continues for more than 24 hours.
  - You cannot follow your usual tube feeding schedule. This is especially important if the tube feeding is your only source of fluid and you are unable to drink.
  - You have signs of dehydration (see dehydration section).

## Dehydration

Dehydration happens when your body does not have enough fluid. It can cause serious complication if it is not treated.

**Signs of dehydration include small amounts of dark yellow urine, dizziness, rapid weight loss, increased thirst, constipation, headaches, and confusion.**

### Causes

- Not getting enough fluids through tube feeding and flushes
- Additional losses such as vomiting, diarrhea or sweating

### Prevention

- Follow your feeding schedule
- Increase your water intake orally or through your NG tube if you are having vomiting or diarrhea or sweating more than usual

### What to do if this happens

- Contact your care provider, dietitian, or nursing telephone line.
- Increase the amount of water flushes before and after feeding.

## Aspiration

Aspiration can happen when saliva, food, or beverages enter the lungs. This may occur during swallowing, eating, and drinking, or from tube feeding.

### Signs and Symptoms

- Coughing and/or choking during eating or tube feeding
- Difficult, noisy breathing
- Wet, gurgly voice or change in voice
- Throat clearing
- Pale or blueish lips
- Change in face color
- Watery eyes
- Shortness of breath
- Fever

### Prevention

- Sit upright or make sure you are at least at a 30-45 degree angle during each feeding
- Always keep your head elevated at least 30-40 degrees, even while sleeping
- If eating by mouth, follow the guidelines recommended by your SLP or dietitian

## Feeding tube position moves or tube falls out

Causes	Prevention
<ul style="list-style-type: none"><li>• Feeding tube is accidentally pulled</li></ul>	<ul style="list-style-type: none"><li>• Secure the feeding tube as instructed</li></ul>






### What to do if this happens

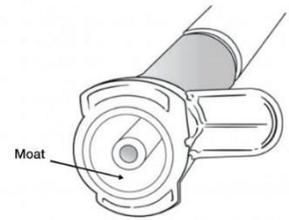
- If the tube has moved by less than 1 inch (2.5 cm), gently push or pull the tube to place it in the original position.
- If the tube appears to have moved more than 2.5 cm (1 inch) do not use the tube. Call the nursing telephone line or go to the emergency room to have it checked for placement.

### If your NG tube falls out:

- Do not attempt to reinsert the NG tube
- Contact the Telephone Nurse Line **Call:** \_\_\_\_\_

## Cleaning Your ENFit Tube

ENFit tubes have a space or moat around the tube where formula and medication residue can build up. To prevent clogging, it is necessary to clean the moat on your tube every 24 hours or whenever buildup is seen.



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See next page for detailed cleaning instructions.

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# ENFit Cleaning Procedures

## Feeding Tubes with Male ENFit Connectors

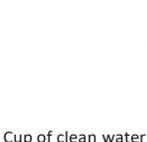
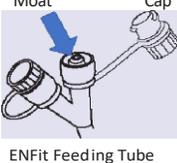
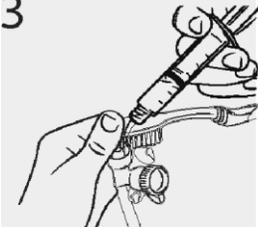
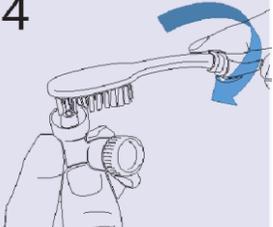
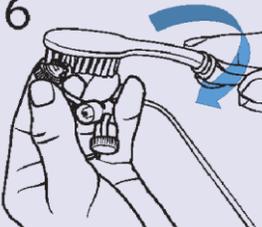
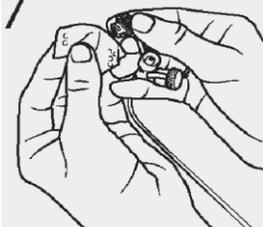
(e.g. Nasogastric, Transpyloric, Orogastric, Percutaneous Endoscopic Gastrostomy Tubes and other ENFit devices)

Tips for keeping ENFit feeding tube ports clean. Inspect before you connect!

- *Priming Feeding Sets* - Stop priming before fluid reaches the end of the tube.
- *ENFit Syringe Draw Up* - Wipe dead space from tip/outer threads, keep fluids out of dead space before



For best results, follow these instructions to clean tubes at least once a day or whenever material is visible.

Tube Cleaning Supplies & Terms				
 Cup of clean water	 Syringe	 Gauze	 Brush* or ENFit specific cleaning tool	 Moat Cap ENFit Feeding Tube
<p>Use brush or follow manufacturer's instructions if using ENFit brush.</p>	<p>Wash hands with soap and water. Rinse brush with tap water.</p>			<p>Fill syringe with water.</p>
 3	 4	 5	 6	 7
<p>Plug center hole of feeding tube port with brush bristles. Forcefully flush moat with water.</p>	<p>Insert brush in bottom of moat.</p>	<p>Rinse cap with clean tap water.</p>	<p>Insert bristles into feeding tube cap and rotate brush in cap to clean.</p>	<p>Wipe feeding tube port and cap with gauze. Clean supplies and allow to air dry.</p>

Repeat steps 3 through 6 until cap and tube are thoroughly clean.

\* A manual toothbrush is regulated as a medical device intended to remove debris from the teeth in some jurisdictions. Consult your licensed healthcare provider or Risk Manager regarding recommended use for cleaning feeding tube ports. Dispose of single use devices as instructed. Cleaning procedures courtesy of Children's Mercy Kansas City. © GEDSA 2018. ENFit is a registered trademark of GEDSA.

