



# **Tube Feeding at Home**

## **Pump Feeding**

Adapted from the former 'Taming the Feeding Tube', North Shore Hospital.  
Revised September 2005



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## What information was used to help prepare this booklet?

- 'Guidelines for the Use of Parenteral and Enteral Nutrition in Adult and Paediatric Patients', Journal of Parenteral and Enteral Nutrition 2002; volume 26, No.1 Supplement
- 'Adult Enteral Nutrition Policy and Procedure, 2004', Queensland Health-Fraser Coast Health Service District, Phone Hervey Bay Hospital Dietitian ( 07) 4120 6670



**How do I contact health carers with questions and concerns?**

**Doctor's name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Nurse's name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Dietitian's name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

(For questions about your feeding plan)

**Speech Therapist's name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

(For questions about your swallowing)

**Nearest Hospital:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Other:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Contact your doctor or nearest hospital if your feeding tube comes out.**

**Where do I get feeds and equipment?**

**Formula:** \_\_\_\_\_

**Giving sets (bags/ bottles):** \_\_\_\_\_

**Syringes:** \_\_\_\_\_

**Replacement tubes (NG or PEG):** \_\_\_\_\_

**Profile/ Button feed tube attachments:** \_\_\_\_\_

\* Feeds and plastics should be provided by the hospital (QH enteral feeding policy).



### Weight Chart

- Weigh yourself every week
- If you are gaining or losing weight, and shouldn't be, contact your dietitian
- Ideal Weight: \_\_\_\_\_

Date	Weight

Date	Weight

## **What is tube feeding?**

Tube feeding, also called enteral nutrition, is a way food can get into your body if you are unable to eat or unable to eat enough. Enteral nutrition is food in liquid form and is given through a tube into the stomach or small intestine.

## **How much formula do I need?**

The dietitian will advise you of your nutritional needs. You will be prescribed a liquid formula to give your body all that it needs. This includes protein, fat, carbohydrate, fluid, vitamins and minerals. Do not cut down on the amount of formula prescribed for you. Do not give other liquids in place of your formula.

## **How are tube feeds given?**

- Tube feeding can be given in 3 different ways – using a pump, using gravity drip or using a syringe.
- A pump is used for continuous or intermittent feeds where the formula is given without stopping over 8-24 hours.
- A gravity drip is used to give larger amounts of formula over a shorter period of time usually 4 to 6 times each day.
- Feeding using a syringe is the fastest method where larger amounts of formula are given at a time. Feeding using a syringe or gravity drip can also be called bolus feeding.

This information booklet will tell you how to provide tube feeds using a pump.

If you require information about gravity feeding, your dietitian will provide you with separate instructions on how to do this.

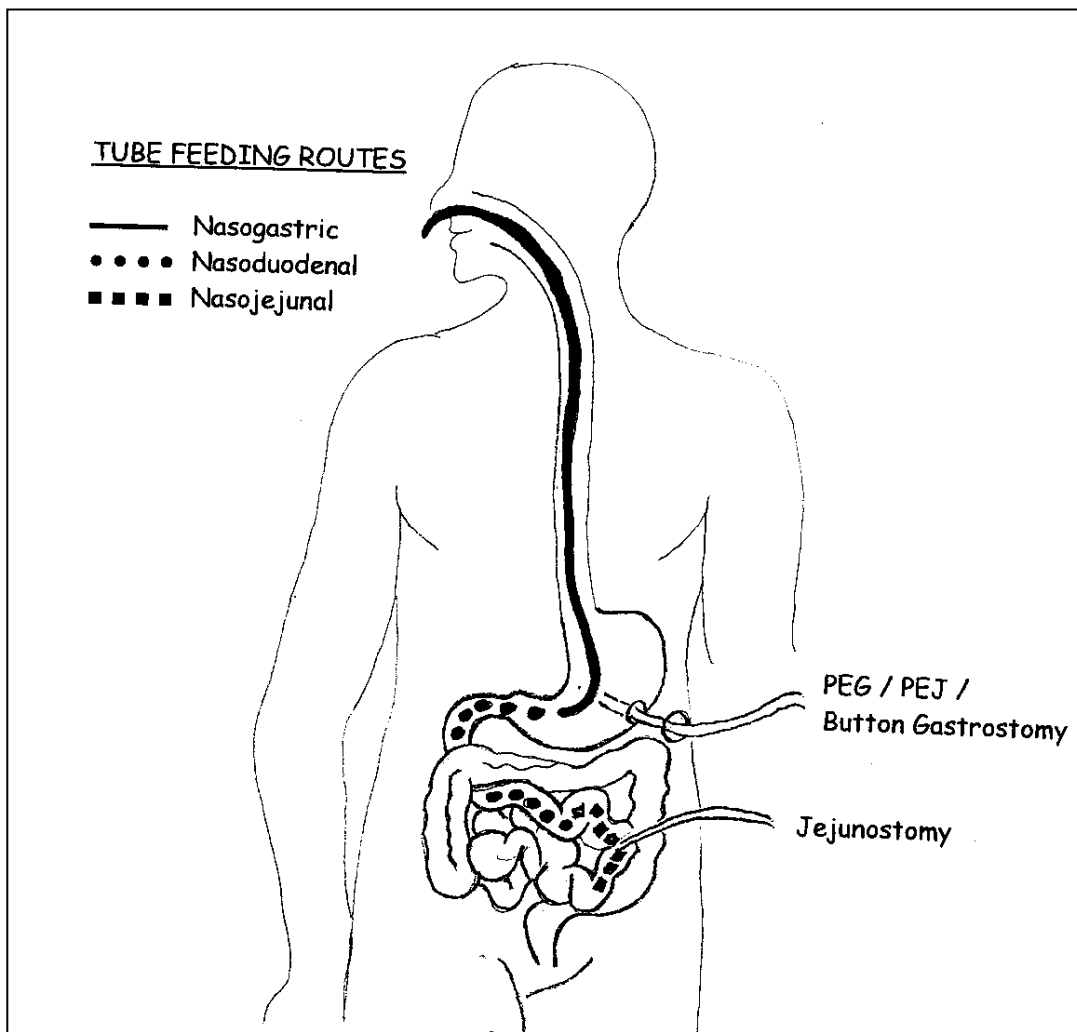
## Where does the feeding tube go?

Tubes can be placed in different places along your gastrointestinal tract.

- A **nasogastric tube** is a tube that is put up the nose and down into the stomach.
- A **gastrostomy**, sometimes called a PEG, (percutaneous endoscopic gastrostomy) is placed in the stomach during a procedure. Some PEG's have a tube always hanging out, and some replacement PEGs are flat ('profile', or 'buttons').
- A **jejunostomy** is placed in the middle part of the small intestine called the jejunum during surgery.

Your feeding tube is called a \_\_\_\_\_

The picture below shows where your tube is:





### What is the correct feeding position?

- You should never give your feeds while laying flat.
- Sit in a chair or lay with your head raised to at least 30 degrees or on three pillows.  
Try to remain in this elevated position after feeding. E.g. for 30-60 minutes after a feed.

IMPORTANT: If you start to cough, choke or have difficulty breathing while feeding; stop the feed. Contact your health carer immediately.

### How do I care for my feeding tube?

There are different types of feeding tubes. Each type will have its own way it needs to be looked after. Talk to your health carer about the care of your feeding tube such as:

- The correct position of the tube.
- How to care for your skin around the feeding tube.
- When your feeding tube should be changed.

Use the following to help you remember the tube you have and when it was changed

Date tube put in: \_\_\_\_\_ Name of tube: \_\_\_\_\_

Number on tube: \_\_\_\_\_ Gauge size of tube \_\_\_\_\_

Dates tube changed		

Contact your health carer:

- If you notice redness, pain or swelling, or excess discharge around your tube site.
- If your feeding tube moves out of position.

## How do I make my formula from powder?

### Step 1 Making formula

- Wash your hands
- Use clean equipment
- Use the directions given on the tin, or as recommended by your

Dietitian\_\_\_\_\_

- Measure powder and fluids carefully
- Mix the powder into the fluid well. Make sure there are no lumps left in the feed

### Step 2 Storing formula

- Store tins of powder in a dry, cool place
- Keep unused, made-up formula, in a sealed container in the fridge
- Throw away any made-up formula after 24 hours (or earlier if advised by your Dietitian)
- Do not heat the formula





## How do I use ready-to-hang formula?

### Step 1 Get the formula ready

- Wash your hands with soap and warm water
- Use clean (not necessarily new) equipment
- Shake bottle well before connecting to equipment

### Step 2 Storing formula

- Store unopened formula in a dry, cool place
- Keep unused, opened formula in the fridge
- Throw away any formula that has not been used in 24 hours
- Do not heat the formula



## How do I use formula in cans or long-life cartons?

### Step 1 Get the formula ready

- Wash your hands
- Use clean (not necessarily new) equipment
- Shake can or carton well before opening it
- Wipe top of can or carton with a clean, damp cloth

### Step 2 Storing formula

- Store unopened cans of formula in a dry, cool place
- Keep unused, opened formula in the fridge
- Throw away any formula not used in 24 hours
- Do not heat the formula



**What is my tube feeding plan using a pump?**

Formula name: \_\_\_\_\_

How much you need each day: \_\_\_\_\_ mL

Number of cans/bags/bottles: \_\_\_\_\_

Pump rate (mL per hour): \_\_\_\_\_

Time to start and finish feeds: \_\_\_\_\_

How much water to flush with (in mL): \_\_\_\_\_

When to have water flushes: \_\_\_\_\_

\_\_\_\_\_ (Flush before and after each medicine)

How much fluid in total you are getting a day: \_\_\_\_\_

How much energy you are getting a day: \_\_\_\_\_  
(kilojoules or calories)

Notes: \_\_\_\_\_

**What texture foods am I allowed to eat?** \_\_\_\_\_

**What thickness fluids am I allowed to drink?** \_\_\_\_\_



## How do I give continuous feeding with a pump?

### Step 1 Assemble all equipment

- IV pole or suitable way of hanging the feed container
- Formula
- Feed container and giving set
- Tap water

### Step 2 Wash hands well with soap and water

### Step 3 Give feed (refer to your tube feeding plan)

- Fill syringe with the set amount of warm water and gently push it through the feeding tube (this is a flush)
- Measure the set amount of formula into the feed container (unless ready to hang)
- Attach the feeding container or ready to hang feed to the giving set tube
- Hang feed container on pole, or use a hook at least 50cm above your head.
- Get the air out of the giving set (Health carer, please write how to do this)

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- Open the flow regulator clamp on the giving set
  - Attach the tip of the giving set tube to your feeding tube
  - Turn on pump and set rate
  - Give the prescribed water flush, every four hours. Use a syringe in the side tap of your feeding tube.
  - If using a ready-to-hang feed, do not hang feed for longer than 24 hours
  - If tipping tins of formula into a feed container, pour 4 hours worth of formula at a time and clean feed container every 4 hours
  - Wash, dry and store equipment as directed

**Ask your health carer to show you how to use your feeding pump**



## How do I give intermittent feeds using a pump?

### Step 1 Assemble all equipment

- IV pole or suitable way of hanging the feed container
- Formula
- Feed container and giving set
- Tap water

### Step 2 Wash hands well with soap and water

### Step 3 Give feed (refer to your tube feeding plan)

- Fill syringe with the set amount of warm water and gently push it through the feeding tube (this is a flush)
  - Measure the set amount of formula into the feed container
  - Hang feed container on pole, or use a hook at least 50cm above your head
  - Get the air out of the giving set ( Health carer, please write how to do this)
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- Open the flow regulator clamp on the giving set
- Let the formula run to the end of the giving set tube to clear the air out
- Attach the tip of the giving set tube, to your feeding tube
- Turn on pump and set rate
- Give the prescribed water flush, every four hours. Use a syringe in the side tap of your feeding tube.
- Once feed is finished, turn the pump off and disconnect tubing
- Wash, dry and store equipment as directed

**Ask your health carer to show you how to use your feeding pump**



## How do I care for my equipment?

- Wash all equipment in warm, soapy water. Allow warm, soapy water to run through the gravity sets.
  
- Rinse thoroughly with clean water and dry well. Store in a covered container. In the warmer weather store all clean equipment in the refrigerator.
  
- If equipment cannot be adequately cleaned and fully dried, it should not be re-used. Ask your Dietitian for further advice on cleaning and drying equipment.
  
- Your Dietitian will inform you how often you should change the following equipment:
  - Feeding set \_\_\_\_\_
  - Container \_\_\_\_\_
  - Syringe \_\_\_\_\_
  - Feeding tube \_\_\_\_\_
  
- If you have a reduced immune function, you may need to replace your equipment more frequently. Your Dietitian can provide advice on this.

## How do I use my feeding pump?

### Using the feeding pump

- Always keep the pump connected to the power supply. In most pumps, the battery backup lasts for a short time only.
- If it is not being used, keep it switched on, in the power point
- The feeding pump should not beep unless something is wrong.

### If your feeding pump is beeping, turn your pump off and check for the following:

- The feed has run out
- The tube is kinked
- Feed blocked in the tube. Flush tube with water
- Body position - straighten up
- Low battery
- Air in tube - disconnect and run feed through tube into sink, until air bubble goes out

### To help prevent beeping

- The chamber on the feeding set should not get too full. If more than 1/3 full, you will need to discard that set, and start again. Remember that when you fill the chamber, it can be helpful to lift the chamber upside down, and slowly fill it up that way.
- As the feed drips into the chamber it needs to be falling in the middle, not down the sides of the chamber
- Try to sit up as much as possible

**If you have checked all of the above, contact the supplier of your feeding pump.**

If you have a Nutricia pump you may find the following website useful for tips and troubleshooting: [www.nutriciaflocare.com](http://www.nutriciaflocare.com)



### How do I take care of the feeding pump?

- Your Dietitian or health carer can help you with the hire of a feeding pump. They can tell you where to get one in your local area, and what it will cost. This will vary depending on where you live.
- You need to look after the pump by wiping it down with a soft damp cloth regularly to keep it clean.
- Keep it out of the rain and weather
- Do not have it on in the shower or bath

### Servicing the feeding pump

- Contact your feeding pump provider or dietitian if your pump is not working properly. Your pump will require regular services. Check with your pump provider how frequently your pump needs to be serviced.
- Use the following lists to help keep track of when the pump was last serviced

**Name of pump:** \_\_\_\_\_

**Number on pump:** \_\_\_\_\_

**Where to bring pump for services:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

Date pump serviced	Date pump serviced





## How do I give medicine through my feeding tube?

**IMPORTANT: Always check with your pharmacist or health carer before taking medicines. Check the following:**

- 1. Does the medicine come as a liquid?**
- 2. Can the medicine be crushed?**
- 3. Should the medicine be given on an empty or full stomach?**
  - Medicine should be in a liquid form if possible
  - Individual tablets should be crushed and mixed with water to make a soup-like mixture (provided the medicine can be crushed)
  - Do not mix medicine with the feeding formula
  - Do not mix medicines together. Each one should be given separately. Flush your feeding tube before and after each medicine.
  - Some medicine should not be given while the feeds are running as they can react with the feed. Your pharmacist will give you instructions on this if needed

### **When adding medicine:**

- Assemble supplies before you start
    - Medicines
    - Tap water
    - Syringe
  - Stop feeding
  - Flush feeding tube with 40mL \* water in the side port
  - Connect syringe to medicine side port on tube, or to end of tube if medicine port is not available, and gently push medication in
  - Flush again with 40mL \* water to remove all traces of medicine and to prevent tube clogging
  - Give each medicine separately. If giving more than 1 medication talk to your health care professional about flushes between medicines
- (\* Or amount recommended by your health carer)

## How do I look after my mouth while on tube feeding?

- Although you may not be eating in the normal way, it is important to keep your mouth clean.
- Brush your teeth at least twice daily with toothpaste and a soft brush.
- Use a bought mouthwash or home-made salt solution (1 teaspoon salt added to 1 litre of water) as needed to freshen your mouth and breath.
- If you have a dry mouth due to your treatment, use a salt solution mouthwash as bought mouthwashes containing alcohol can make the mouth dryer. Ask your nurse more about your mouth care.
- If allowed, ice chips or sugarless gum can be used to prevent a dry mouth.
- Use a lip cream to prevent dry lips. Don't lick your lips, as this can make your lips even drier.
- Try to breathe through your nose.
- Report any bleeding or mouth problems to your doctor or community nurse.

## What can be some tube- feeding problems?

### Diarrhoea

Diarrhoea means frequent loose bowel movements that are not normal.

#### Possible causes of diarrhoea are:

- Medicines, for example antibiotics and laxatives.
- Feeding the formula too fast or when it is too cold.
- Contamination of the formula by not being careful with hygiene (hand washing, hanging feeds too long, flushes not totally cleaning tubing).

#### To prevent diarrhoea:

- Try to relax before and during the feed.
- Do not feed a cold solution. Take the formula out of the fridge 30 minutes before feeding.
- Use warm, not cold water for the water flush.
- Make sure all your equipment is clean.
- Wash your hands well before handling the formula, equipment, and your feed tube.
- If pouring formula into a bag or bottle, only hang 4 hours worth at a time. After this time, the bag or bottle needs rinsing, before filling up with more formula.
- Always cover unused formula, refrigerate and throw out after 24 hours.

#### When you have diarrhoea remember to:

- Have an extra 2-4 cups of water (or sports drink) to replace lost fluid.
- If diarrhoea lasts for more than 24 hours contact your doctor.
- If you are on pump feeds discuss slowing the rate down, with the dietitian.
- If you are on bolus feeds, give yourself smaller feeds more often. Try giving each bolus feed at a slower rate eg. allow at least 20 minutes.
- Talk to your dietitian.

## What can be some tube-feeding problems?

### Upset stomach

This includes nausea, vomiting, bloating, heartburn or stomach pain.

### To prevent stomach upset

- Do not feed a cold solution. Take the formula out of the fridge 30 minutes before feeding.
- Do not rush the feeding. Use the right amount, at the right speed.
- Do not lay flat during or just after feeding. Sit or lie at an angle of 30 degrees during and after feeds eg. 30-60 minutes after feeding.
- Do not exercise, or bend over after feeding.
- Wear loose waisted clothing.

### If you have a stomach upset

- Try smaller feeds more often (it's okay to skip a feed occasionally if feeling unwell).
- If you have a PEG tube, you might find that air is getting trapped in your stomach, causing discomfort. Letting the air out of your stomach can help. This is called venting. To do this:
  - Attach a 60mL catheter tip syringe, without the plunger, to the feeding port.
  - Lower the syringe below the stomach.
  - Allow contents and air (froth and bubbles) to fill the syringe.
  - Drain contents back into the stomach by raising the syringe above the stomach.
- If you have a low profile PEG you may have a 'venting' tube which can be pushed into the PEG to let the air escape.
- If nausea continues contact your health carer

## What can be some tube-feeding problems?

### Blocked tube

#### To prevent a blocked tube

- Always crush medications well before giving through the feeding tube.
- Always flush the feeding tube with 40mL water before, between and after giving medications.
- Always flush the tube with at least 40mL water every 4 hours or 8 hours if overnight.
- Always begin and finish each feeding session with a water flush. This keeps the tube clean and stops feed building up inside the tube.

#### If your tube becomes blocked

Try the following steps:

- Check that the feeding tube is not kinked.
- Gently massage the tube with the fingers from the insertion site out. You can keep doing this for a while.
- Try to flush the tube with warm water. Try using a 20-30mL syringe with plunger as this can give more pressure than a 60mL one.
- Push the water gently, and then with increasing pressure for 10-15 seconds.
- Pull back a few times for a few minutes.
- If unsuccessful, wait for 30 minutes, then repeat the push and pull steps.
- If tube still remains blocked, please contact your health care professional.

## **What can be some tube-feeding problems?**

### **Constipation**

Constipation means bowel movements that are hard, or difficult to pass.

#### **Possible causes of constipation are:**

- Not enough fluid.
- Not enough fibre in the formula.
- Not enough exercise.
- Some medicines.

#### **If you are constipated:**

- Ask your Dietitian about having more water in your feeding plan.
- If allowed, do more physical activity.
- Ask your Dietitian about formulas with fibre.
- Ask your doctor to review your medicines and possibly prescribe a liquid laxative.



## What can be some tube-feeding problems?

### Tube coming out

- DO NOT use your Nasogastric or PEG feeding tube if it has come out of the tube site (unless you have been told otherwise by your health-carer).
- Call your doctor or go to the Emergency Department of the nearest hospital.
- If your PEG tube comes completely out it will need to be replaced as soon as possible because the tract begins to close within 1-2 hours.

### Contact your Doctor if:

- You have a chest infection, or need to cough a lot when you are having feeds. This might mean the feed is going down the wrong way.
- There is inflammation, swelling, pain, redness, oozing or leakage around your tube site.
- You have diarrhoea for more than 1 day.
- You have vomiting.
- You have a fever.
- Your feeding tube comes partially or completely out.
- The following symptoms don't go away:
  - Nausea
  - Stomach bloating
  - Constipation

You should always discuss your tube feeding with your Dietitian and health carer.  
Do not rely solely on the information provided in this booklet.

### Where can I get more information?

**Book:** 'Gastrostomies: All you need to know', Royal Children's Hospital Melbourne.  
Volders, E et al 1997

### Websites:

- PINNT, self help group for patients with nutrition support [www.pinnt.com](http://www.pinnt.com)
- Gastrostomy Information and Support Group:  
<http://www.scopevic.org.au/index.php/site/resources/gastrostomies>