Tube Feeding: A guide for direct support workers

Updated September 2007





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1. Introduction

People with a disability may require enteral or tube feeding to maintain nutrition and health. Home Enteral Nutrition (HEN) is an option to provide optimal nutrition for those people with a disability living in the community.

This information book has been written to provide direct support workers with a resource that they can use together with the information provided by the hospital that the person attends for their tube feeding.

Gastrostomy or Percutaneous Endoscopic Gastrostomy (PEG) feeding is most widely used.

This information book will discuss PEG feeding only.



2. Glossary

Aspiration:	Food or fluid entering the lungs.
Bolus feed:	Measured amount of formula and water given via PEG tube over 10–15 minutes.
Connector:	Pointed end on the giving or pump set that attaches to the end of the PEG tube.
Continuous feeding:	Slow dripping of formula into the PEG tube over the whole day and/or the night.
Formula:	A manufactured liquid that contains the nutrients to maintain health.
Gastrostomy or Percutan	eous Endoscopic Gastrostomy (PEG) tube: The tube that goes into the stomach which is used to feed the person.
Giving set or pump set:	The tubing that goes from the feeding bottle or bag to the gastrostomy tube.
Granulation tissue:	The pinkish red, slightly raised ring of newly growing, healthy skin around the stoma.
Gravity feed:	The feed is placed in a bottle and allowed to slowly drip into the tube over a certain length of time.
Intermittent feeding:	Feeds are given a number of times during the day using gravity or a pump.
-	
-	or a pump. n tube: A gastrostomy tube that sits flush to the skin
Low profile tube or butto	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are
Low profile tube or butto Nutrients:	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are obtained from food. The end of the gastrostomy tube where the feeding/pump set, or
Low profile tube or butto Nutrients: Port:	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are obtained from food. The end of the gastrostomy tube where the feeding/pump set, or syringe is attached.
Low profile tube or butto Nutrients: Port: Powder formula:	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are obtained from food. The end of the gastrostomy tube where the feeding/pump set, or syringe is attached. Formula in powder form that is mixed with water. Formula that comes in a container ready to hang on the pole and
Low profile tube or butto Nutrients: Port: Powder formula: Ready to hang formula:	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are obtained from food. The end of the gastrostomy tube where the feeding/pump set, or syringe is attached. Formula in powder form that is mixed with water. Formula that comes in a container ready to hang on the pole and use.
Low profile tube or butto Nutrients: Port: Powder formula: Ready to hang formula: Reflux:	or a pump. n tube: A gastrostomy tube that sits flush to the skin on the abdomen. Protein, fat, carbohydrates, vitamins, minerals and water that are obtained from food. The end of the gastrostomy tube where the feeding/pump set, or syringe is attached. Formula in powder form that is mixed with water. Formula that comes in a container ready to hang on the pole and use. The movement of stomach contents up the oesophagus (food pipe). A machine that allows the formula to be pumped through the tube

3. Checklist for establishing tube feeding in supported accommodation.

When tube feeding is being started for the first time or the type of tube has been changed, this checklist can be used by direct support workers before the person with the disability is sent home from hospital.

Direct support workers must ensure that the following have been done:

- The person is registered on the Home Enteral Nutrition (HEN) program when discharged from a public hospital. Contact the dietitian at the hospital where they are a patient.
- The direct support workers have received training on tube feeding and giving medication via the tube prior to discharge from the hospital or insertion of a new type of tube. Contact the dietitian at the hospital to arrange this.
- The day program/school has been contacted if tube feeds and/or medication are required while they attend. Do staff at the day program or school agree to give feeds and/or medication? If they do not agree to give feeds or medication, make other arrangements for these to be given OR ask the dietitian to change the feeding regime. Check if programs/school have arranged training for their staff.
- The chemist has been contacted to check that all prescribed medication can be crushed or is available in liquid form. Also check whether medication needs to be given before or after a feed.

Ensure that enough equipment and formula is available for when the person returns home. Request a list of equipment that is required for tube feeding from the hospital.

The house staff have set up an information folder containing:

- handouts/manuals given by the hospital,
- a tube feeding plan prescribed by the dietitian,
- specific details of tube care,
- specific details of stoma care and skin care from the stomal therapist or dietitian,
- a detailed oral hygiene routine,
- a specific mealtime management plan (if appropriate),

The information folder also contains documentation required for tube feeding:

- details of the person's feeding tube and emergency contacts,
- tube feed administration record sheet,
- monitoring volume of balloon sheet (if a balloon tube is inserted),
- weight chart,
- bowel chart,
- fluid balance chart (if required).

4. When is tube feeding necessary?

Tube feeding is used when a person is not able to eat enough food to maintain health. This may be due to:

- losing the ability to swallow safely (dysphagia) due to illness or neurological problems such as head injuries, multiple sclerosis, cerebral palsy or stroke.
- loss of appetite that results in significant weight loss or malnutrition.
- diseases of the digestive system.
- increased nutrition needs that cannot be met by eating and drinking alone.

5. What is tube feeding?

Tube feeding involves giving a liquid nutrition formula through a tube which is placed in a stoma (hole) in the wall of the abdomen, directly into the digestive system. The stoma is created under an anaesthetic or sedation.

A dietitian will select the best formula for the person so that their nutrition and fluid needs are met.

The feeding tube can be placed:

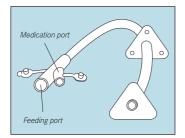
- through the abdomen directly into the stomach (gastrostomy or PEG Percutaneous Endoscopic Gastrostomy),
- through the abdomen directly into the small bowel (jejunostomy or PEJ),
- through the nose and oesophagus into the stomach (naso-gastric or N/G).

This information folder looks at PEG feeding only.

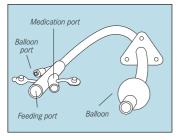
6. The process of deciding when tube feeding is used.

When the person is unable to eat and/or drink safely (dysphagia) or a health problem arises which indicates that the person with a disability requires tube feeding, there is consultation between the person and:

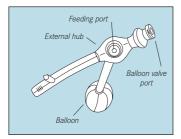
- their doctor,
- their dietitian,
- their speech pathologist if the person has reduced ability to eat and/or drink safely,
- the house or unit supervisor,
- the direct support workers
- their family or guardian for health.



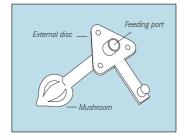
Initial percutaneous endoscopic gastrostomy tube (PEG)



Balloon tube



Low profile balloon tube



Low profile or button tube

7. Types of tubes

There is a range of tubes available. Hospitals use tubes from a number of companies. The resident that you care for will be using one of these tubes.

Initial percutaneous endoscopic gastrostomy tube (PEG):

The initial PEG tube is one which allows the stoma or hole in the stomach wall to develop properly. This tube is put in under general anaesthetic or sedation. It has a disk on the inside, which stops the tube from falling out of the stomach. These tubes come in a variety of sizes.

Balloon tube:

Balloon tubes are often the first type of tube put in when the initial tube is replaced. They have a balloon on the stomach end of the tube which is inflated with water. This balloon stops the tube falling out.

Low profile balloon tube:

Low profile balloon tubes are a shorter tube that sits flush with the skin on the abdomen. They come in different lengths. These tubes still have a balloon on the end of the tube inside the stomach that requires filling with water to stop them falling out.

Low profile/Button tubes:

Low profile or button tubes are also shorter tubes that sit flush with the skin on the abdomen, and come in different lengths. They have a flexible disk or mushroom on the stomach end of the tube to hold them in instead of a balloon.

8. Putting in the tube

The first tube can only be put in under sedation or general anaesthetic by medical staff at a hospital. This tube can only be removed and replaced by medical staff at a hospital.

Further replacement of the tube can only be done by a doctor or trained nurse.

Direct support workers in supported accommodation facilities cannot replace tubes.

9. Methods of giving feeds

Tube feeds can be given as:

- a bolus feed.
- a gravity feed (the feed is placed in a bottle and allowed to slowly drip into the tube over a certain length of time).
- a continuous feed with the use of a special pump that pumps the feed into the tube at a certain rate during the day and/or night.

10.Where do you get formula and equipment for tube feeds?

A formula that meets the person's nutrition needs is fed through the tube. The dietitian will select the type and amount of formula, and the rate of formula the person requires.

Formula and equipment is provided by the public hospital that the person is registered with for the HEN (Home Enteral Nutrition) program. Refer to the contact details given by the dietitian at the hospital for ordering formula and equipment. Most hospitals require a small payment for the formula or equipment and/or delivery.

If the PEG tube is put in at a private hospital the person will not be able to register with the HEN program.

11. Storage and preparation of tube feed formulas

Refer to Enteral Feeds section, page 28, in Food Safety For All – a guide for shared homes for people with a disability. Also available on Disability Services website: www.dhs.vic.gov.au/ds/nutrition.

a) Storage

Unopened formula

- Store formula in a cool, dry position away from sunlight.
- Check formula is within the use by date.
- Check packaging is not damaged.

Opened formula

• Store opened formula in a covered container with the name of the formula, date and time it was opened written on it, and store in the refrigerator.

ALL OPENED LIQUID FORMULA MUST BE THROWN OUT AFTER 24 HOURS FROM BEING OPENED.

11. Storage and preparation of tube feed formulas

b) Preparation of formula

Direct support workers must practice good hygiene techniques when handling formulas or giving feeds. The formulas are an excellent food for food poisoning bacteria to grow in if they are not handled properly.

DIRECT SUPPORT WORKERS MUST WASH AND DRYTHEIR HANDS BEFORE PREPARING ANY FEEDS.

Most people requiring tube feeding are using ready-to-use liquid formulas.

Formula comes in:

- Ready to hang containers for continuous feeds.
- Tins where the formula is poured into a feeding bottle/container for continuous feeds,

or is measured out for a bolus feed.

• Powder form, which requires mixing with water.

Where the person is receiving a specialised formula made from a powdered product, direct support workers must follow the instructions for preparation provided by the dietitian.

Opening tins of formula:

- 1. Shake the tin well before opening.
- 2. Wipe top of can with a clean cloth to remove any dust or particles.
- 3. Pull ring top on can or use a clean can opener to open tin.
- 4. Measure out required amount of formula.

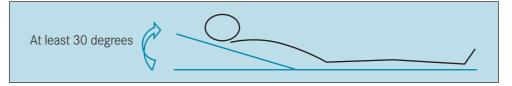
If the opened formula is already in the refrigerator, the measured amount of formula should be allowed to sit at room temperature for 15-20 minutes to take the chill off it.

Ready to hang formula:

1. Take out the required ready to hang container and gently shake the container prior to hanging.

12. Positioning of the person for tube feeds

The person having the tube feed must be seated in an upright position, or if in bed, their head and upper body must be raised to at least a 30^o angle. They should remain in this position during the feed and for 30 minutes after each feed.



Correct positioning will reduce the risk of the feeds refluxing from the stomach back up into the mouth, and vomiting occurring, or feeds possibly entering the lungs (aspiration).

13. Giving a tube feed

Only direct support workers trained by an approved trainer should give tube feeds

Direct support workers must practice good hygiene techniques when giving feeds.

DIRECT SUPPORT WORKERS MUST WASH AND DRY THEIR HANDS BEFORE GIVING A FEED

Before giving feeds, check that the tube is in the correct position and has not moved into the stomach. If the tube has moved into the stomach, refer to the potential problems section (tube leaking) on page 22 for details of what to do.

NB: The tube may require venting (allow gas to escape) before the feed can be given. Refer to the section on venting tubes on page 16 in this manual for details of how to do this.

Bolus Feeds

Equipment required:

- 60ml syringe
- 2 measuring cups one for formula and the other for water
- Formula.

NB: For a low profile or button tube, a right angled adapter and/or extension tube is needed. This is available through the HEN program.

Method:

- 1. Measure out into measuring cups the required amount of feed and water to flush the tube.
- 2. Gently undo the cap on the tube.
- 3. Remove the plunger from the syringe.
- 4. Put the tip of the syringe into the feeding port.
- 5. Pour the required amount of water into the syringe and allow the water to flow down the tube slowly to flush the tube before the feed.

13. Giving a tube feed

- 6. Pour in 40-50ml of the feed into the syringe.
- 7. Allow the feed to flow down the tube SLOWLY ie. each syringe should take 3-4 minutes to empty. The rate at which the feed is allowed to flow down the tube can be adjusted by holding the end of the syringe higher or lower as it relies on gravity to flow.

Do not use a plunger in the syringe unless there is a lot of resistance with the formula going down the tube or if the formula is a thick consistency. The plunger will need to be used for low profile tubes. If this becomes a problem, discuss this with the dietitian.

- 8. Continue to give the remainder of the feed.
- 9. Flush through tube with the required amount of water.
- 10. Remove the syringe and replace the cap on the tube.

NB: In some situations bolus feeds are given with a pump. Refer to the instructions provided by the dietitian at the hospital.

Gravity Feeds

Equipment required:

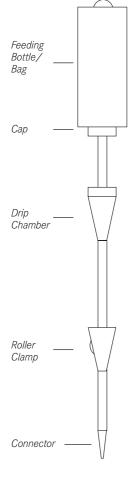
- Gravity feeding sets
- Bottle/Bag for formula.
- 60ml syringe
- Pole/hook to hang bottle from.
- Measured water in measuring cup

NB: For a low profile or button tube, a right angled adapter and/or extension tube is needed. This is available through the HEN program.

Method:

- 1. Fill clean feeding bottle/bag with the required amount of feed. Avoid filling the container with more than 8 hours of formula to reduce the risk of bacterial growth and food poisoning.
- 2. Attach the giving set to the feeding bottle/bag according to the instructions provided by the dietitian. Ensure that the roller clamp on the giving set is closed.
- 3. Hang the feeding bottle/bag on the pole/hook attached to the person's chair or bed and gently squeeze the clear drip chamber below the cap on the feeding bottle/bag until the feed half fills the drip chamber.
- 4. Flush the PEG tube with the required amount of water.
- 5. Hold the pointed end of the connector on the giving set over an empty jug or cup. Gently release the roller clamp on the giving set until the formula flows through the tubing to within 1-2 cm of the start of the pointed connector. Close the roller clamp.
- 6. Insert the pointed end of the connector on the giving set into the feeding port of the tube. Push the cap of the feeding port into the plastic eyelet on the giving set.
- 7. Release the roller clamp on the giving set and allow the feed to run through over the required time.
- 8. Flush the tube with the required amount of water when the feed has run through.

Gravity feeds can be given with some pumps. Refer to the instructions given by the dietitian in the hospital.



13. Giving a tube feed

Pump Feeds

Pumps available for tube feeding have different set ups. Refer to the instructions provided by the hospital. The following is a general outline of setting up the equipment.

Equipment required:

- Pump set compatible with pump
- Bottle/Bag for formula.
- 60ml syringe
- Pole to attach pump to and to hang bottle from
- Measured water in measuring cup

NB: For a low profile or button tube, a right angled adapter and/or extension tube is needed. This is available through the HEN program.

Method

1. Fill clean feeding bottle/bag with the required amount of feed. Avoid filling the container with more than 8 hours of formula to reduce the risk of bacterial growth and food poisoning.

If using a ready to hang formula that doesn't require filling a feeding bottle/bag, take the next container of formula out and gently shake it.

- 2. Attach the pump set to the feeding bag/bottle according to instructions from the dietitian.
- 3. Remove the cap from the connector end of the pump set.
- 4. Hang the feeding bottle/bag on the pole/hook attached to the person's chair or bed, or free standing pole.
- 5. If the pump set has a drip chamber, follow the instructions provided by the hospital.
- 6. Follow instructions given to remove air from the pump set and allow the formula to flow through.
- 7. Flush the tube with the required amount of water.
- 8. Insert the connector end (pointed end) of the pump set into the feeding port of the PEG tube and secure the cap of the feeding port to the pump set.
- 9. Refer to the instructions for the pump to fit the pump set in the pump.
- 10. Set prescribed rate of feed on the pump and follow pump instructions to commence feed.
- 11. To give medication (see next page) or water flushes (see below), turn pump onto hold or turn it off. The pump will alarm if it is left on hold for any length of time.

DO NOT PUT MEDICATION IN THE FEEDING BOTTLE/BAG WITH THE FORMULA.

12. Start the feed again or if the feed is finished, remove the connector from the end of the PEG tube, flush with the required amount of water, and put the cap back on the tube.

14. Water flushes

To prevent the tube blocking, the tube should be flushed with water:

- Before feeds or medication are given.
- When the feed or medication has been given.
- At prescribed times if fed continuously with a pump.

Refer to the dietitian's instructions for how much water to flush the tube with and how often to flush the tube.

Method

- 1. If continuously feeding, stop the feed.
- 2. Remove plunger from a syringe and attach the syringe casing to the feeding or medication port on the tube, or on the extension tube.
- 3. Pour the prescribed amount of water into the syringe and allow the water to flow in using gravity without using the plunger. Use the plunger for a low profile tube.
- 4. Remove the syringe and close the cap on the tube or recommence the feed.



Flushing the tube with water before and after feeds or giving medication is essential

15. Giving medication

Medication is given via the medication port on the tube. A smaller syringe will be required eg. 10 or 20ml syringe. Medication can also be given through the feeding port.

Check the medication sheet for correct dose and time that medication should be given ie. before or after a feed.

DO:

- ✓ Use liquid medication wherever possible.
- Check with the chemist that the medication can be crushed or capsules can be opened.
- ✓ Give medications one by one if giving a number at one time.
- Flush the tube with 5–10ml of water between each medication.
- ✓ Check with the chemist if the medication should be given with or without feeds.

DO NOT:

- **X** Give medications mixed together.
- X Put medication down the balloon port on a tube with a balloon.
- X Add medication to the formula.
- X Crush enteric coated or slow release tablets or open slow release capsules.

Procedure for giving medication:

Remember to check with the chemist if tablets can be crushed and dissolved, or if capsules can be opened and dissolved.

If the tablet can't be crushed and dissolved, or the capsule opened and dissolved, contact the doctor to discuss other options for giving medication.

Tablet.

- If the tablet is effervescent, dissolve in 20-30ml of water.
- If the tablet is not effervescent, crush tablet using a mortar and pestle or tablet crusher.
- Mix with 20-30ml of water.
- Wash solution into medicine cup with 5-10ml of water.
- Flush the tube with 10-20ml of the water flush.
- Pour the medication solution into the syringe.
- Add 5 10 ml of water to medicine cup to rinse medication from the cup and pour into syringe
- Give solution through the medication or feeding port.
- Flush the tube with the remaining amount of water.
- Remove the syringe and replace the cap on the tube or start feeding again.

15. Giving medication

Capsule

- Break capsule open and pour contents of capsule into medicine cup.
- Dissolve in 20-30ml water.
- Flush tube with 10-20ml of the water flush.
- Pour medication solution into the syringe.
- Add 5–10ml water to medicine cup to rinse medication from sides of cup and pour into syringe.
- Give solution through the medication or feeding port.
- Flush the tube with the remaining amount of water.
- Remove the syringe and replace the cap on the tube or start feeding again.

Liquid

- Measure out prescribed volume of liquid medication in medicine cup.
- Flush tube with 10–20ml of the water flush.
- Pour liquid medication into syringe.
- Add 5–10ml of water to medicine cup to rinse medication from the sides of the medication cup and pour into syringe.
- Give liquid medication through the medication or feeding port.
- Flush tube with the remaining amount of water.
- Remove the syringe and replace the cap on the tube or start feeding again.



Prepare all medication, water and equipment prior to giving medication through a PEG tube

16. Venting the tube

Large amounts of air or gas can build up in the stomach resulting in bloating and discomfort, the cap on the feeding port of the tube blowing open, or it can prevent the feed or medication from flowing through the tube.

Venting or decompressing the tube releases the air or gas in the stomach.

Low profile or button tubes will require a decompression tube to be able to vent the tube. Stomate tubes will require the extension tube to be able to vent the tube. These are supplied by the hospital that supplies the equipment and feeds for the person.

Tubes with a balloon:

- Remove cap from feeding port.
- Remove plunger from syringe.
- Attach 60ml syringe casing to feeding port.
- Lower the syringe below the stoma and allow contents of the stomach and air to enter the syringe.
- When bubbling stops, drain contents back into the stomach by raising the syringe above the stoma.
- Put the cap on the tube or commence giving the feed or medication.

Low profile or button tubes:

- Undo the cap on the tube.
- Put the decompression tube into the tube and allow air to escape.
- Remove decompression tube and close the cap or commence feeding.

Stomate tubes:

- Undo the cap on the tube.
- Attach straight extension tube to the feeding port.
- Attach 60ml syringe casing to extension tube.
- Lower the syringe below the stoma and allow contents of the stomach and air to enter the syringe.
- When bubbling stops, drain contents back into the stomach by raising the syringe above the stoma.
- Remove the syringe and extension tube.
- Close the cap on the tube or commence feeding or giving medication.

17. Care of equipment for tube feeding

Ideally the equipment should be changed every 24 hours but your hospital dietitian may recommend re-using the equipment in certain circumstances.

All equipment used when giving tube feeds should be washed immediately after use. This includes:

- syringes,
- measuring cups,
- pump sets,
- gravity feed sets,
- re-usable formula reservoirs/bottles,
- extension tubes.

Washing equipment straight after use reduces the chance of blocked tubes and bacteria growing which cause food poisoning.

DO:

- Rinse equipment with cold water first.
- ✓ Wash in warm soapy water.
- Rinse them out with warm water until all traces of soap/detergent are gone.
- Allow the equipment to drip dry on paper towelling. Cover clean equipment with a clean tea towel to prevent flies or people touching the sets and contaminating them.
- Place equipment in a clean container and cover with the lid when dry, and place the container in the refrigerator until required.

DO NOT:

- Leave dirty equipment to stand before cleaning as it blocks equipment and allows bacteria to grow.
- **x** Use boiling water, Milton or other sterilising solution as it damages the equipment.
- X Wash equipment in the dishwasher as it also damages equipment.





Equipment used in PEG feeds should be washed and rinsed thoroughly immediately after use

Care of tube feeding pumps

Tube feeding pumps require regular cleaning to keep them working properly. Refer to the manufacturer's instructions for details of how to clean them or contact the dietitian at the hospital for more details.

18. Mouth Care

Mouth care is important for people who are tube fed to maintain comfort and reduce dental disease. Ensure that they have regular dental checkups.

Poor oral hygiene can result in:

- Dry mouth
- Gum disease
- Bleeding gums
- Tooth decay
- Bad breath
- Cracked lips
- Mucous plugs
- Painful mouth due to infections/ulcers
- Bad taste
- Loss of teeth
- Unattractive appearance that may reduce interactions with other people.

Cleaning Teeth

- Use toothbrush and toothpaste and clean their teeth at least twice a day.
- Use dental floss if the person will allow you to floss their teeth.
- If the person can't swallow safely, gags or doesn't have the oral skills to rinse their mouth and expel the water, use a mouthwash on a jumbo swab or small, soft toothbrush.
- Follow instructions for cleaning teeth given by the dentist.

Cleaning Dentures

- Full dentures should be rinsed after meals & at night they should be taken out and cleaned with a brush and soap & water, and stored in water overnight.
- Partial dentures should be removed before cleaning natural teeth and cleaned as described above.

If gums are bleeding continue brushing teeth using a soft toothbrush or a jumbo swab. Seek advice from the dentist if bleeding persists after 1-2 weeks.

Mouth and lip care

- Regular mouth swabs with warm water (don't use alcohol based swabs as they dry the mouth)
- Apply moisturiser to the lips regularly throughout the day.
- Make sure the person is receiving enough fluid throughout the day. Signs of not enough fluid include dry and cracking lips, dry mouth, concentrated urine.

19. Stoma care

The stoma is the opening in the abdomen through which the feeding tube is placed. Daily care is essential to prevent infection.

- Wash your hands and put on a new pair of disposible gloves.
- Rotate or turn the tube 360⁰ gently between the thumb and forefinger.
- Gently ease the tube in and out until there is slight resistance from the internal flange, balloon or bumper against the stomach wall.
- Wash area around the tube with warm, soapy water using a soft cloth.
- Clean under the external skin disk or button flange using a cotton tipped applicator in a spiral motion starting from the middle and working outwards.
- Gently dry skin.
- A small piece of non woven gauze may be required to protect clothing. Do not use heavily taped dressings as they may irritate the skin or cause infection.

A small amount of ooze is normal around the stoma as stoma (hole) is an opening in the wall of the abdomen. If there is a large amount of ooze, refer the person to their doctor or stomal therapist.

Granulation tissue is normal around the stoma and is not a problem unless it is painful. Consult the doctor or stomal nurse if this is a problem.

Pain, soreness, redness, swelling, or bloody or odorous ooze is not normal and the doctor or stomal nurse should be consulted immediately.

20. Monitoring and documentation

Regular monitoring is important to prevent problems arising and allow early identification of problems if they do occur.

Monitoring	How Often?
Mouth:	
During daily mouth care routine check for dry mouth, dry or cracked lips, ulcers, bleeding gums	2-3 times/day
Stoma:	
During bathing check stoma for redness around stoma site, swelling, odorous or bloody ooze, pain or soreness to touch	Daily
Tube:	
Check position of external skin disk	Prior to each feed
Check tube for any soft or spongy areas.	Weekly
Check amount of water in balloon	Fortnightly
Bowels:	
Frequency	Daily
Consistency	Daily
Weight:	
For weight maintenance	Monthly
For weight gain or loss *	Weekly

Documentation

Each person receiving tube feeds should have an individual folder of all of the information relating to their tube feeding. Information should include:

- The feeding plan written by the dietitian
- The "Details of enteral feeding tube and contacts" form *
- For those people with a balloon tube, a "Monitoring of Balloon PEG tube" forms*
- Tube feed administration forms*
- Instructions/details of any special care required or products for the tube and/or stoma
- Instructions for specific dental care
- Weight chart*
- Bowel chart*.
- * these charts are included in the appendix. Refer to pages 29-39.

POTENTIAL PROBLEMS AND PRIORITY ACTION	POSSIBLE CAUSES	ACTION	PREVENTION
Accidental removal of tube			Securely tuck tube under clothing. Also try:
Priority Action:			 firmly fitting singlet
1.Don't panic	Pulling on tube		• all-in-one jump suit
2. DO NOT GIVE FEED, WATER OR MEDICATION until a new tube has			 cut legs off a pair of pantyhose and place brief around abdomen
been inserted.			 velcro fastened binder/cummerbund
3. Refer to your organisation's guidelines for what to do when a tube is dislodged	Tube dislodged during transferring of person		Ensure giving/pump set is disconnected before transferring from bed or wheelchair
4.Refer to the person's tube feeding folder & documented contact details & make arrangements for the tube to be replaced as soon as possible.	Balloon deflated or burst		Fortnightly check of water in balloon
Detachment of feeding tube from pump or giving set.	Connector on pump/giving set not correctly attached to feeding port on tube	Estimate the amount of formula lost. Reattach feeding tube and continue feeding, adding estimated amount of lost formula	Ensure that connector on pump/giving set is correctly attached to the feeding port on the tube
	Pump/giving set still attached to tube when transferring person to & from bed/chair	As above	Ensure pump/giving set is disconnected before transferring from bed to chair
	Increased stomach gas production blowing connector and feeding port apart	Vent tube and recommence feed as above	Regular venting of tube

POTENTIAL PROBLEMS AND PRIORITY ACTION	POSSIBLE CAUSES	ACTION	PREVENTION
Tube deterioration or damage	Tube is old and needs replacing. Effect of medication on interior of tube. Frequent flushing of tube with Coke Not flushing correctly, ie. formula or medication remains in the tube	Arrange for tube to be replaced	Check tube for soft or spongy areas weekly Arrange replacement of the tube before it blocks, tabs or caps break, tube has become soft and spongy or if it leaks Flush tube with water after every feed or medication administration
	Incorrect opening of the tabs on the feeding tube	Gently lever the tab out of the feeding tube	Arrange for replacement of feeding port on the tube (if possible) if tabs damaged
	Thrush infection in stoma or tube	Apply anti fungal cream around stoma site to help clear up thrush	
Leakage around the tube	Balloon is deflated	Re inflate balloon or arrange replacement of the tube if the balloon has burst	Check the balloon volume on a fortnightly basis
	Tube too small for the stoma	Arrange replacement of tube with a larger size tube	
	Tube moves into the stomach	Gently pull tube until you feel resistance from the balloon or disk in the stomach against the stomach wall. Adjust external skin disk	Check mark/measurement on the tube above the external skin disk, or make a mark with a waterproof pen on the tube to indicate correct position
	Perished tube	Refer to person's tubefeeding folder and documented contact details. Make arrangements for the tube to be replaced as soon as possible	Check tube for soft or spongy areas every week
	Formula being given too quickly	Feed more slowly	Follow recommended rate of giving feeds in dietitian's feeding plan

POTENTIAL PROBLEMS AND PRIORITY ACTION	POSSIBLE CAUSES	ACTION	PREVENTION
Irritation, leakage, skin redness' bleeding, soreness, swelling and/or ooze	Leakage of stomach contents	A foam dressing or gauze will absorb excess ooze. Change dressing regularly A thin waterproof, absorbent dressing may help irritated skin	Check that cap on tube is closed when not giving feeds or medication
	Inadequate cleaning and drying of the skin	Wash and dry the skin correctly Mylanta [™] applied to the skin can reduce redness Paw paw ointment, sorbolene and zinc cream can help with irritation Waterproof sprays also help reduce irritation Stomahesive powder helps stop bleeding and absorbs excess moisture	Keep skin dry and clean. Wash and dry around the stoma and under the button or skin disk daily. Rotate the tube 360 ⁰ daily
	Stomach may need to be vented, especially if person feels "full" or bloated Person may have gained weight or outgrown the smaller size button tube	Vent the tube Arrange to replace button tube with a larger size tube. If signs of skin irritation, redness, pain, swelling or unusual discharge persist, contact the Stomal Therapist or doctor	Vent before and/or after feeding. Use decompres- sion tube for button tube

hygiene, food storage principles and care of equipment

POTENTIAL PROBLEMS POSSIBLE CAUSES ACTION PREVENTION AND PRIORITY ACTION Diarrhoea Feeding too rapidly or fast Slow rate of feed. Follow the Dietitian's guidelines for **Priority Action** what to do if diarrhoea Temporarily decrease rate occurs of feeding and increase Give feed at room Feed too cold Give feed at room slowly as tolerated or follow temperature temperature the dietitian's guidelines for what to do if diarrhoea Unhygienic food handling Check that the preparation Follow correct personal occurs. techniques and storage of feeds is hygiene, food storage hygienic principles and care of equipment Some antibiotics can cause Check with the doctor diarrhoea whether medication is causing the diarrhoea or there is another cause of diarrhoea Infective virus or bacteria Discuss with doctor. Contact the dietitian Low fibre intake Discuss with dietitian possibility of high fibre feed Granulation tissue Often occurs 6 weeks post Check tube daily to ensure Does not require treatment (proud flesh) surgery unless it is causing major it doesn't move too freely problems. A foam dressing can be used to apply pressure to reduce granulation. Contact a stomal therapist or doctor if it requires treatment Tube is moving too freely Arrange for tube to be replaced by a larger tube

POTENTIAL PROBLEMS AND PRIORITY ACTION	POSSIBLE CAUSES	ACTION	PREVENTION
Nausea and vomiting	Feeding too rapidly		Feed person at prescribed rate/speed
 Priority Action 1. Stop feeds and check whether person has a temperature 	Person not in correct position when having feeds.	Sit person up at 30 ⁰ or more during feeding and for 30 minutes after feeding	Ensure person in correct position during feeds and for 30 minutes after feeds
2. Restart feeds according to instructions from the dietitian or at a reduced rate until reviewed by the	Constipation	Check if constipated	Discuss with dietitian who may prescribe a high fibre feed
dietitian or doctor 3. Sit person up at 30 ⁰ or more during feeding and	Build up of stomach gas	Vent before feeding	Regular venting of stomach gases before feeds
for 30 minutes after feeding	Feeds too cold	Feeds to be at room temperature	Feeds are at room temperature
Reflux	Altered stomach emptying	Vent and feed at a slower rate	Vent before and after feeds Discuss rate of feeds with dietitian
		Sit upright or ensure head and shoulders raised at least 30 ⁰ if in bed	Ensure correct positioning for feeds
		Ask doctor about medications for reflux or other causes of reflux	Observe for formula in mouth or dribbling out of mouth
Aspiration Priority Action 1. STOP FEEDS 2. Contact doctor	Feed entering lungs and not the stomach		Watch for symptoms: coughing, choking, wet or gurgly voice after feeding, recurrent chest infections, increased temperature, vomiting, laboured breathing

POTENTIAL PROBLEMS AND PRIORITY ACTION	POSSIBLE CAUSES	ACTION	PREVENTION
Constipation	Inadequate water and/or dietary fibre	Increase amount of water given Discuss type of formula and possible fibre additives with the dietitian Discuss with the dietitian possibility of using prune juice or pure pear juice via the tube	Follow guidelines and ensure adequate water is given. Discuss with dietitian High fibre feeds. Discuss with the dietitian Discuss giving prune or pear juice with dietitian
	Side effect of medication	Discuss with doctor	
Blocked tube Priority Action	Not flushing correctly. Formula left in the tube to curdle		Always flush with water before and after feeds or giving medication
 Syringe in 20-30ml of warm water into tube Cap the tube and allow the liquid to dissolve the blockage Gently massage tube to help clear blockage If unsuccessful make up a sachet of Ural with 	Poorly crushed medication		Use liquid medication where ever possible. Check with chemist and doctor if liquid form available Ensure tablets are crushed and dissolved well before administration Never mix medication with the formula
 100ml of water and flush 30 ml down the tube Ural must be written on the treatment sheet for it to be used. 5. Place syringe into blocked tube and gently pull back on plunger to remove blockage 	Pureed food put down the tube		Do not put pureed food down tube. Only put prescribed formula down tubes

22. Oral Food and Drinks

Some people are able to eat food and/or have drinks as well as having tube feeds, while other people are not able to eat and drink safely and rely on the tube feeds for their nutrition and fluid intake.

CHECK WITH THE PERSON'S SPEECH PATHOLOGIST AND/OR DIETITIAN, THEIR CURRENT SPEECH PATHOLOGY REPORT OR MEALTIME PROFILE AS TO WHETHER THEY CAN EAT OR DRINK.

If the person is able to eat and/or have drinks as well as tube feeds, follow the recommendations for:

- texture of food,
- whether drinks require thickening,
- equipment required to eat or drink,
- seating/positioning of the person to eat or drink safely,
- how to assist the person to eat or drink,
- quantity of food or drinks,
- timing of meals, snacks or drinks in relation to tube feeds,
- any special dietary requirements eg. high fibre foods, low fat foods recommended by the dietitian.





Drink thickened to a honey consistency

Fruit cut up finely

23. Resources

The dietitian at the hospital the person is registered with for tube feeding can be contacted.

It is suggested that the person subscribe to Gastrostomy Information and Support Society GISS so that carers can keep up to date with current trends and issues in tube feeding.

Gastrostomy Information and Support Society (GISS) Ph: 9843 2000 giss.crc@scopevic.org.au

Food Safety For All – A guide for shared homes for people with a disability. Disability Services 2003.

Food Safety In Action – How to develop and implement and monitor a food safety plan in a shared home for people with a disability.

Specific Health Management – Tube Feeding, IDS Accommodation Services Practice Instruction Manual Vol 3.

24. Appendix

1. Details of feeding tube and contacts form

Each person receiving PEG feeding should have a completed form in their PEG feeding folder.

Direct support workers should complete the section about the reason for and type of tube inserted, as well as the section on the emergency contact numbers.

Whenever the person's tube is replaced, this form should be taken to the appointment and the details about the new tube should be completed and signed by the person changing the tube.

Contacts
and
Tube
Feeding '
of
Details

Name						Address:							
Reason why	Reason why tube feeding started:	started:											
Date when ii	Date when initial PEG tube inserted:	e inserted:	<u> </u>	/		Brand of initi	Brand of initial tube inserted:	d:			Size -		ш
EMERGENC	CONTACT	EMERGENCY CONTACT FOR PROBLEMS WITH TUBE (ie. tube comes out):	EMS WITH T	UBE (ie. tube	comes out)					PHONE:			
						CON	CONTACTS:						
	DIETITIAN			STOMAL 1	STOMAL THERAPIST		GA	GASTROENTEROLOGIST	LOGIST			GP	
Name:			Name:				Name:			Name:			
Hospital:			Hospital:	al:			Hospital:			Address:	SS:		
Phone:			Phone:				Phone:			Phone:			
OTHER CONTACTS:	NTACTS:												
					DETA	DETAILS OF REPLACEMENT TUBES:	LACEMEN	TUBES:					
DATE TUBE REPLACED	TYPE OF TUBE	BRAND OF TUBE	SIZE OF TUBE(F)	LENGTH OF BUTTON TUBE	VOLUME OF BALLOON (ml)	LENGTH VOLUME SIGNATURE OF HOSPITAL/ BUTTON TUBE BALLOON (ml) MEDICAL STAFF	DATE TUBE REPLACED	TYPE OF TUBE	BRAND OF TUBE	SIZE OF TUBE(F)	LENGTH VOLUME OF OF BUTTON TUBE BALLOON (ml)	VOLUME OF BALLOON (ml)	SIGNATURE HOSPITAL/ MEDICAL STAFF

24. Appendix

2. Tube feed administration record sheet

This form has been developed as an example for direct support workers to complete each time they give a PEG feed. It is to be completed in a similar way to the recording form for giving medication used in supported accommodation facilities.

Completing the forms helps to ensure that all feeds are given and is important in monitoring to progress of the person with their tube feeds.

Tube Feed Administration Record Sheet

				SUNDAY						
				SATURDAY						
				FRIDAY						
Name:	Address:	D.O.B.	Ξ	SDAY						
			WATER FLUSH:	THURSDAY						
			WA	WEDNESDAY						
				TUESDAY						
gime:				MONDAY						
Feeding Regime:				DAY/ DATE TIME						

24. Appendix

3. Monitoring of balloon tube

Monitoring the amount of water in the balloon on PEG tubes is essential to prevent the balloon deflating and the PEG tube falling out.

The balloon should be checked every fortnight and the details recorded.

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	VOLUME WATER REPLACED									
	VOLUME WATER REMOVED									
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	DATE									
	INITIALS									
	VOLUME WATER REPLACED									
	VOLUME WATER REMOVED									
Name	DATE									

24. Appendix

4. Weight Chart

Follow the instructions of the dietitian or doctor regarding how often to weigh the person.

The weight must be documented each time the person is weighed.

These are weight charts that can be used to record weights on.

Weight Chart (15kg-75kg)

Name:

Address:

Healthy Weight Range:

kg

kg to

to

Period:

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to

Weight Chart (60kg-120kg)

Name:

Address:

Healthy Weight Range:

kg to

kg

Period:

: DATE: Weight																				
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60kg																				

24. Appendix

5. Bowel chart

Follow the instructions of the dietitian or doctor regarding monitoring the persons bowel function.

This chart can be used to record bowel function on.

Bowel Chart

Name:	Bowel Treatment:
Address:	
Month: Year:	

DATE	N M		BOV OPE	VELS NED		αι	JANT	ITY			CON	SISTE	NCY		TIME TREATMENT GIVEN	TIME BOWEL OPEN		
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2nd																		
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BOWELS OPENED

NM No Motion SP Spontaneou S Suppository Spontaneous Suppository Laxative

Ľ Enema

QUANTITY

L Large

ĀS Average Small

CONSISTENCY

Refer to Bristol Stool Form Scale -(Types 1–7). Available from Norgine Pty Ltd 6/33 Ryde Road, Pymble, NSW 2073

40 Tube Feeding: A Guide for Direct Support Workers

Authorised by the Victorian Government, 555 Collins Street, Melbourne

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