RCH@Home Core Manual: Gastrostomy Tubes

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1. **What is a gastrostomy tube?**

A gastrostomy tube also known as a PEG (Percutaneous Endoscopic Gastrostomy) is a soft tube placed directly into a hole or stoma in the stomach by a surgeon.

It is used to feed children who can’t eat and drink at all, or who can’t eat and drink enough. There are two different types of gastrostomy tubes: ‘buttons’ and ‘long’ tubes.

All tubes are held in the stomach by a small balloon or an anchor piece.

2. **Care of the gastrostomy stoma**

The skin around the tube needs to be cleaned each day with soap and water. This can be done when the child has their bath.

**Procedure**

1. Wash your hands (can use ABHR)
2. Ensure that you put on gloves if at any time you may come in to contact with the child’s body fluids
3. Remove the dressing (if applicable). Dressings are only needed under tubes that are leaking or oozing
4. Gently clean the skin around the stoma using cotton buds or a soft cloth with soap and warm water
5. Dry the skin thoroughly after the bath, the skin must be kept clean and dry
6. Check for redness, swelling, oozing, or excess skin growing around the tube. Notify parents if you see any of these
7. Remove gloves and dispose
8. Wash your hands (can use ABHR)

3. **Mouth care**

Even if the child is not having any food or drink through their mouth, it is important to keep their mouth clean. This may be done by brushing their teeth twice a day with a soft toothbrush, or by using a soft wet cloth to wipe their teeth. Lip balm can be applied to stop the child’s lips drying out.

4. **What to do if the tube comes out**

4.1 **What happens if the tube comes partially out?**

If the tube becomes partly dislodged you may see a reddened swelling around the tube. The child may have discomfort during the feed and the feed may be going in slowly.

**Procedure**

1. Wash your hands (can use ABHR)
2. Stop the feed immediately and contact the child’s parents
3. Do not put anything down the tube
4. Keep the tube in place by taping it to the skin
5. Wash your hands (can use ABHR)

Parents will get the tube fixed/changed at their hospital.
4.2 What happens if the tube comes completely out?

Procedure
1. Wash your hands (can use ABHR)
2. Cover the stoma with a small gauze dressing and tape it to the skin
3. Place the tube in a clean plastic bag
4. Contact the child’s parents as the child will need to go to the Emergency Department at the nearest hospital to have the tube replaced
5. The gastrostomy tube must be replaced as soon as practical but within four hours to prevent the stoma closing.
6. Wash your hands (can use ABHR)

Some parents are trained to replace the tube themselves. Carers must not put the tube back in.

4.3 Preventing the tube from coming out
- If it’s a long tube, keep it taped or pinned to the nappy or shirt
- Keep the child’s T-shirt over the tube. One-piece, snap T-shirts work best for infants and toddlers
- Use stretchy gauze (fastanet) over the tube

5. Common problems
5.1 Blocked tube
To prevent blockages occurring:
- Flush with water after every feed.
- Flush with water after each medicine.
- Give all medications separately.
- Use liquid medications whenever possible.
- Crush and dissolve medications with water.
- Ensure feeds are not too thick or contain lumps of powder.
- Do not put vitamised food down the tube.

To unblock the gastrostomy tube, flush it with 10 - 20 ml of a carbonated drink such as mineral water or diet cola. Sometimes the blockage can be pulled out (aspirated) using a syringe.

5.2 Leakage around the tube
Leakage often happens as the child grows and the tube becomes too small inside the stoma, it may need replacement with a larger tube.

Other possible causes include:
- The balloon deflating or breaking.
- Tube deterioration or damage.
- Tube moving from its correct place.
- If feeds are given too quickly.
If any of these problems present, tell the child’s parents immediately.

Ensure that you put on gloves if at any time you may come in to contact with the child’s body fluids.

5.3 Broken skin

Stomach (gastric) juices leaking around the gastrostomy can cause the skin to become red and raw. If this happens to the child you care for you may be asked to apply a barrier ointment or absorbent dressing to protect the skin. Try to keep the skin clean and dry at all times. Ensure that you put on gloves if at any time you may come in to contact with the child’s body fluids.

5.4 Infections

If the stoma is infected, it may look red, swollen, have pus, feel hot and be sore. The child may have a temperature, act irritable and not tolerate their diet. Tell the child’s family.

Ensure that you put on gloves if at any time you may come in to contact with the child’s body fluids.

5.5 Granulation tissue

Overgrowth of fleshy skin around the gastrostomy can occur. This overgrowth of skin will often bleed easily and smell. This happens commonly around six weeks after surgery or if the tube is moving too freely. Tell the child’s family as a foam dressing can be applied, the pressure of which helps with the tissue overgrowth. A steroid cream can also be applied.

6. Venting

Venting allows excess air to escape from the stomach.

You should vent the child:

- Before a feed
- If the child seems uncomfortable or has stomach pain
- If the child’s stomach seems swollen
- Possibly after a feed

Some children will not need venting, confirm with the child’s parent as to whether the child requires regular venting.

6.1 How to vent a button (low profile gastrostomy tube)

Procedure

1. Position the child so that they are comfortable. Tell the child what you are doing.
2. Wash your hands (can use ABHR)
3. Attach the feeding extension tube to the button. Make sure the tube is clamped.
   NB: Never place a syringe directly into the PE site of a low profile device.
   BARD buttons have a special tube used only for venting; you can use the normal feeding tube (extension set) for a Mic-Key tube
4. Attach a 50 ml syringe to the extension tube, minus the plunger
5. Unclamp the tube and gently press on the tummy to assist with air to escape through the syringe.
6. A small amount of liquid may appear in the tube, if this happens hold the syringe high enough so that it does not come out
7. You may hear air come out or see bubbles of air escape out of the tube.
8. It may be the case that no air comes out and child does not regularly require venting
9. When finished, allow the liquid to drain back in if present, clamp the tube and remove the syringe and extension tube, making sure you clean it for further use.

10. Wash your hands (can use ABHR)

### 6.2 How to vent a long gastrostomy tube

**Procedure**

1. Position the child so they are comfortable. Tell them what you are doing.
2. Wash your hands (can use ABHR)
3. Attach a 50 ml syringe to the extension tube, minus the plunger
4. Unclamp the tube and gently press on the tummy to assist with air to escape through the syringe
5. A small amount of liquid may appear in the tube, if this happens hold the syringe high enough so that it does not come out
6. You may hear air come out or see bubbles of air escape out of the tube.
7. It may be the case that no air comes out and child does not regularly require venting
8. When finished, allow the liquid to drain back in if present, clamp the tube and remove the syringe and extension tube, making sure you clean it for further use
9. Wash your hands (can use ABHR)

### 7. Feeding procedures

Tube feeding gives liquid food to the child who is unable to eat or drink enough. This helps them to grow and stay healthy. A variety of specially made liquid feeds are available. Each child has been nutritionally assessed and is managed by a dietitian who is responsible for developing an appropriate individual feeding plan. In most cases the tube feeds will give the child all the nourishment that they need. Refer to child specific pages for instructions on which feed to use and how to give it to the child.

#### 7.1 Common problems with tube feeding

Sometimes feeds may cause the child to:
- Be uncomfortable and/or have bloating during or after the feed
- Feel sick or vomit
- Have diarrhoea or constipation
- Acquire an infection

### 8. Care of feeding equipment

#### 8.1 Giving sets and accessories

Wash all containers and feeding equipment in warm soapy water. Rinse well and drip-dry thoroughly before storing. It is recommended that they are stored in an airtight container in a cool dry place or in the fridge, ready for use with the next feed. The feeding sets should be changed every 2 days (daily if the child’s immune system is affected or if they are under the age of one year).

#### 8.2 Formula

- Ready to feed formula can be hung for a maximum of 8-12 hours
- Formula prepared from powder for can be hung for 6-8 hours.
- Feeds in the refrigerator should be used within 24 hours if made from powder and 48 hours for ready-made formula
8.3 **Pump**

Not all children have a feeding pump. The outside of the pump can be cleaned with a damp cloth and warm soapy water. When cleaning the pump it should be turned off and unplugged. If the pump is not working, follow the trouble shooting guide or tell the child’s parents.

9. **Preparing the child for feeds via a gastrostomy tube**

**Procedure**

1. Tell the child that you are going to get their feed ready
2. Wash your hands (can use ABHR)
3. Prepare equipment
4. Prepare formula (feed)
5. Fill the feed container with the right amount of formula
6. Vent stomach (if applicable)
7. Attach giving set to PEG
8. Commence feed
9. Wash your hands (can use ABHR)

9.1 **Bolus feeds**

Bolus feeding involves giving a feed over certain period of time, which is dependable on how fast each child individually tolerates it. Feeds can be given using a syringe (with the plunger removed) or using a gravity feeding set. Exceptions to this rule are made dependent on each child.

9.2 **Procedure using a syringe**

**Procedure**

1. Wash your hands (can use ABHR)
2. Clamp the PEG tube
3. Connect the tip of the syringe into the end of the feeding tube or extension set. Fill the syringe with formula
4. Unclamp PEG tube
5. Hold the syringe higher or lower to regulate how fast the feed is given. If the syringe is held up high, the feed will be fast, if held low the feed will be slow
6. Refill the syringe when 5-10 ml of feed remains to stop air getting into the stomach
7. At the end of the feed flush the tube with water
8. Clamp the tube, remove it and clean it as per previous instructions
9. Wash your hands (can use ABHR)

9.3 **Procedure using a gravity set**

**Procedure**

1. Wash your hands (can use ABHR)
2. Put the right amount of feed into the feed container
3. Connect the feed container to the gravity giving set.

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4. Hang the container and run the formula through the gravity giving set line until almost at the end then clamp off the giving set
5. Connect the tip of the giving set to the extension set (for low profile devices)
6. Release the clamp on the gravity set until you get the right drip rate for the child
7. At the end of the feed flush the tube with water
8. Wash your hands (can use ABHR)