

Children's Services

Caring for a Monarch gastrostomy tube in children

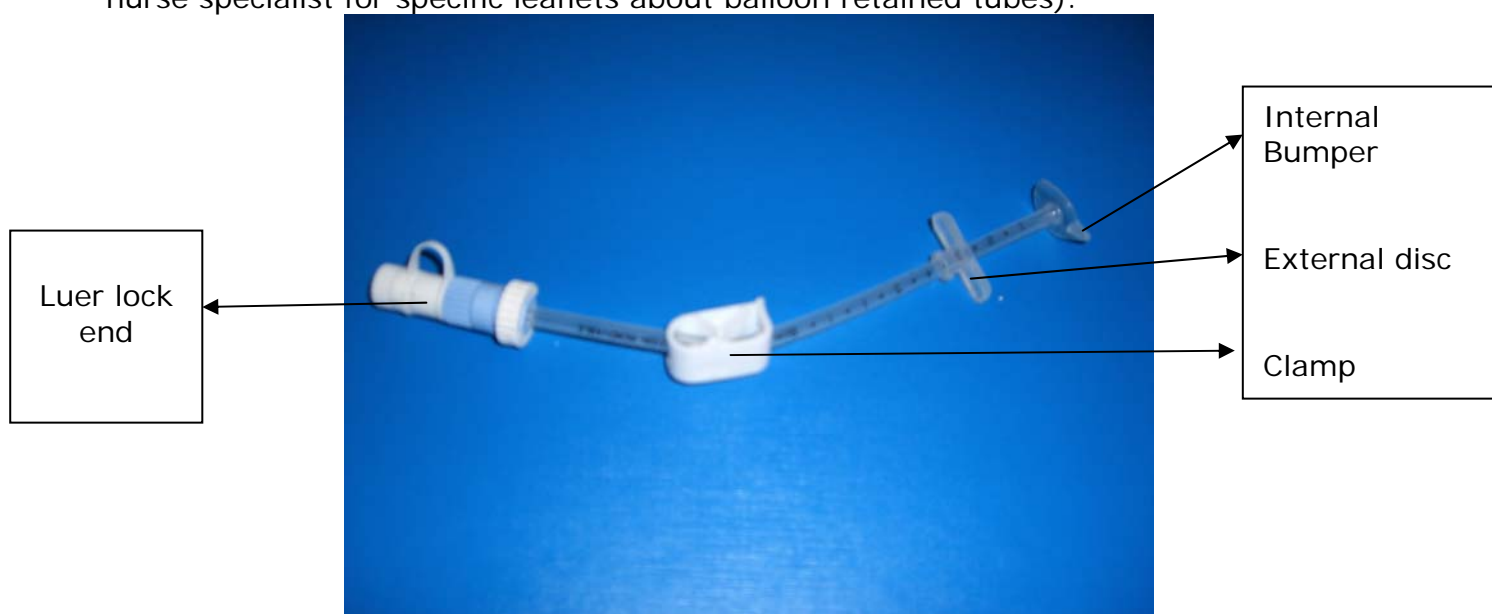
Introduction

- A gastrostomy is a surgically made stoma ('hole') from the skin to the stomach.
- A gastrostomy is formed when a person cannot eat or cannot eat enough to meet nutritional requirements.
- A gastrostomy tube is used to deliver nourishment and liquid (and medication where applicable) into the stomach.
- There are many types of gastrostomy tube. This leaflet only refers to the Monarch tube.

What is a 'Monarch' gastrostomy tube and how is it inserted?

A Monarch gastrostomy tube is a silicone tube which is inserted through an incision which is made in the abdomen. Your child will be asleep under a general anaesthetic whilst the tube is inserted. The tube is held in place by its internal bumper and also externally by a suture (stitch), external disc and sometimes tapes.

A Monarch gastrostomy tube is usually a temporary device which is used to form a gastrostomy tract. After six to eight weeks the tube is removed on the ward by a nurse specialist or senior doctor and is replaced by a balloon retained tube (ask your nurse specialist for specific leaflets about balloon retained tubes).




Advantages of a Monarch gastrostomy tube

- More cosmetically pleasing than a nasogastric (NG) tube.
- Can be changed to a low profile balloon retained gastrostomy tube after six weeks of placement with ease and without the need for a further anaesthetic.

Disadvantages of a Monarch gastrostomy tube

- Requires a general anaesthetic for insertion.
- Is a foreign object in the body and can therefore be associated with some minor complications, for example, infection around the site.
- Requires care/careful securing as it can be pulled out.
- Serious complications related to tubes are very rare and symptoms are seen usually within a maximum of 72 hours after insertion or change. If your child develops any of the 'red flag' symptoms **within 72 hours** of insertion or change you should contact the Paediatric Surgery Nurse Specialist Team (contact number at the end of this leaflet). The Nurse Specialist Team are available Monday to Friday 08:00 to 18:00 excluding bank holidays. Outside of these hours you should speak to your GP or local hospital who will contact the Paediatric Surgery Specialist Registrar at Addenbrooke's. The 'red flag symptoms' are:

	<p style="text-align: center;">Red Flag Symptoms</p> <ul style="list-style-type: none">▪ Pain or signs of distress▪ Fresh bleeding▪ Leakage of feed around the tubing
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Administering feed/fluids via a Monarch gastrostomy tube

- Your gastrostomy care team (Nutrition Specialist/Nurse Specialist/Dietician) will recommend a suitable feeding plan for your child's needs and will teach you how to administer it whilst your child is in hospital. This may be via a pump, by gravity 'bolus' feeds or a combination of both.
- It is not necessary to check the position of the tube prior to feeding unless you are concerned that the tube does not have its normal appearance/may have become dislodged.
- It is important to wash hands carefully prior to and after using any gastrostomy tube.
- To keep the tube open a flush should be administered after a feed has been given (see section 'Flushing').

Administering medication via a Monarch gastrostomy tube

Administering medication correctly will avoid the gastrostomy tube becoming blocked.

- Remind anyone prescribing medication for your child that the medication is to be delivered via the gastrostomy tube.
- Request that your child's medication is provided in a liquid form wherever possible.
- Some liquid medications are known to be associated with tube blockages and so need to be further diluted with water (usually a 50:50 dilution – half liquid medication, half water) before being administered via a gastrostomy tube. Ask a member of your gastrostomy care team if you are unsure.
- If medication is only available in tablet form, seek advice from your GP/Pharmacist/Nurse Specialist on whether tablets can be crushed / mixed with water and how to make a solution with crushed tablets. Tablet particles can lead to tube blockages.
- Ensure the gastrostomy tube is flushed between drugs as well as after giving drugs (see section 'flushing').
- Remember to wash your hands prior to and after handling a gastrostomy tube.

General care

Cleaning/Skin care

- The area where the tube goes through the skin is called the stoma site. You may notice a discharge at the stoma site for the first few days (seven to ten days) until the stoma heals.
- Daily care of the gastrostomy site and tube will reduce the possibility of soreness or infections. Older children should be encouraged to care for their gastrostomy sites themselves.
- Always ensure that you wash your hands before and after caring for your child's gastrostomy tube.
- The gastrostomy site should be cleaned daily with warm soapy water.
- Always avoid using cream / powders on the skin around the tube (unless otherwise advised by your care team) as they can damage the tube material and may lead to irritation of the skin and give rise to infection.
- If you notice that the skin is becoming inflamed or there is discharge from the site you should contact a member of your gastrostomy care team.
- The suture (stitch) which is in place should **not** be removed. (If it falls out spontaneously extra care should be taken, for example, extra taping).
- To keep the tube secure it is essential that tapes are kept in place. Three lengths of tape are usually used, two which secure the tube to the skin and one additional piece of tape which prevents accidental pulling on the tube. (See section below on 'changing tapes').

Flushing

Flushing the tube is essential to maintain patency, i.e. prevent blockages

- The gastrostomy tube should be flushed with water (sterile / cooled boiled water if the child is below one year of age).
- Unless otherwise specified by your dietician, a minimum of 20mls of water should be used for flushes after feeds (see section on 'Administration of medications'). Your dietician may advise that, in addition, you give a flush prior to feeding to ensure your child's fluid requirements are met.
- When giving drugs, it is important to flush between each medicine as well as after them to prevent precipitation (settling of the drugs) in the tubing.

Replacing feeding sets

- We advise that all gravity (bolus) feeding ('giving') sets are changed every 24 hours. Between each use the tubing should be washed with hot soapy water, rinsed then left to dry. They should be sterilised if your child is under one year of age.
- Continuous ('pump') feeding sets should be discarded 24 hours after first use.

Infection

- Daily cleaning of the gastrostomy site with soapy water will help to reduce the risk of infection.
- If you notice that the gastrostomy site is inflamed/red/sore/discharging, contact a member of your gastrostomy care team for advice.

Changing tapes

Some children have tapes to help secure the tube.

Your nurse will show you how to change the tapes prior to your discharge home. The following instructions should be followed:

- The suture (stitch) which is in place should **not** be removed. (If it falls out spontaneously extra care should be taken for example, extra taping).
- The tapes which are used to secure the Monarch tube should be changed whenever they are coming off or are soiled.
- It is important to ensure that the tube is not pulled any more than necessary during tape changes as this can lead to accidental dislodgement.
- Wash hands prior to and after changing tapes.
- Cut the lengths of new tape prior to removing the old ones.
- Unless your child has an allergy, a plaster remover wipe (for example Zoff) should be used to help detach the tape from the skin / tube.
- Once the tapes are all off, clean around the stoma site with warm soapy water.
- Pat the skin dry so that the new tapes will stick effectively.

- Tapes should be applied in such a way that the tube stands erect from the skin. This ensures that a round stoma is created. If the tube is taped flat onto the skin an oval hole will be created which can lead to leakage.

Common questions

Can I/my child bath/shower?

Yes, once the site is fully healed (usually about seven days after insertion) you/your child can bath/shower as normal. Always ensure that the tube end is closed. Dry the area thoroughly afterwards.

Can I/my child go swimming?

Yes. Make sure the tube cap is closed.

Will I/my child be able to move around freely?

In the six weeks after initial placement your child should refrain from P.E at school and any activities where the tube could be pulled out. After this time, your child's gastrostomy tube should not affect or restrict normal activities.

Where do I get the equipment and supplies?

We will provide you with initial supplies (usually enough to last for one week) and a spare tube to use in case the Monarch tube falls out. You will receive further supplies from your community healthcare team; some areas use a home delivery service. If you have any problems getting supplies at home please ring your nurse specialist who will be able to help you. You should remember to order new supplies in good time before you run out and only use equipment for the length of time specified by the manufacturer.

Will I/my child be able to go to school?

You/your child should be able to go to school as normal. Staff at the school can be taught what to do if the device falls out and spare supplies should also be kept at the school for emergency use.

Can we go on holiday?

- It is fine for your child to travel but it is advised that you discuss travel plans with your doctor / gastrostomy care team. It may be helpful, particularly if your child has complex needs, to take a letter with you from your care team which can help you if you need to seek medical advice whilst on holiday. In addition letters from your care team can be useful to help prevent any problems with airport security when you are travelling with 'medical equipment'.

- Remember to take extra supplies with you and to pack at least some of these in your hand luggage in case your main luggage goes astray.
- Use a large dressing to avoid getting sand near the stoma site as this can irritate the skin.
- Your home delivery company also offer practical advice.

If I am not using my/my child's tube what care is required?

The tube must be flushed at least once per day with a minimum of 20mls of sterile water (cooled, boiled water if your child is aged under one year old).

What happens when the Monarch tube is removed?

- Before your child is discharged your Nurse Specialist will arrange a date for you to return to the ward for change of gastrostomy tube.
- It is advisable that you/your child is not fed for two hours prior to your appointment time as this prevents feed leaking out when the tube is removed.
- We also advise that you take/give your child some painkillers (for example, paracetamol) prior to leaving home for the appointment.
- On arrival your Nurse Specialist will meet you and discuss the course of events. The Nurse Specialist will remove the Monarch tube on the ward; this is usually uncomfortable rather than painful if paracetamol has been given earlier.
- Once the Monarch tube is removed the Nurse Specialist will measure the length of the gastrostomy tract with a specifically designed device and will then insert an appropriately sized low profile balloon retained gastrostomy tube (mic-key button).
- Before you go home your Nurse Specialist will teach you how to care for the new tube and will arrange for any changes to your home supplies to be made.

Problem solving

Tube blockage

To prevent tube blockage the tube should be flushed with water after giving feeds/medication (see section 'Flushing'). Always ensure medications are being administered in a way that limits the chances of tube blockage (see section on 'administering medication').

If the tube does block you may try the following. If unsuccessful on the first step, try the next:

1. Ensure all clamps are open and the tube is not kinked.
2. Try to flush using a pumping action with the plunger on the syringe.
3. Connect a 50ml syringe to the end of the tube and try to draw back (aspirate).
4. Massage the tube around the area of blockage if it is obviously visible.
5. Mix a solution of sodium bicarbonate (baking soda).

- Mix half a teaspoon of sodium bicarbonate (baking soda) with 30mls of boiling water.
 - Leave this to cool to a warm temperature then use a syringe to flush this solution down the tube.
 - Leave the solution in the tubing for at least two hours (can be left overnight) then flush it through with 20mls of water.
 - If you do not have any sodium bicarbonate, try soda water or pineapple juice.
6. Contact a member of your gastrostomy care team.

Important: Never use excessive force and **never** attempt to unblock the tube by inserting objects down it.

Discharge observed from stoma site

It is usual to experience a discharge at the stoma site until the stoma heals (usually seven to ten days after placement). It is important to clean the area carefully during this time. If the discharge is spoiling clothing a small 'key hole' dressing can be applied but should be changed regularly / removed when no longer needed.

If you notice any discharge/odour from the stoma site after the tube's initial insertion you should contact a member of your gastrostomy care team.

Feed leakage from stoma site around the tube

- If feed is observed coming from the stoma site you should check that the tubing is being held securely next to the skin.
- Leakage from the stoma site can occur because the stomach is too full/contains gas (see section on Venting). If you notice feed leaking out around the stoma site you should contact your dietician to discuss changing feeding regimes, for example decreasing the flow rate.
- If the problem persists you should contact a member of your gastrostomy care team for advice.

Stomach is swollen and/or feels hard: 'Venting' (or 'Decompression')

- Some children suffer from trapped wind. This gas can be released by decompressing the stomach via the gastrostomy tube.
- To decompress the stomach attach a syringe barrel to the tube hold the syringe 10cms above the height of the child's abdomen and allow the gas to expel, if necessary aspirate the gas.

Sore skin

- Redness or soreness around the skin and stoma may be the result of gastric leakage.
- Clean and dry the area frequently.
- Call your community nurse if the stoma is persistently red and sore, the stoma emits an odour, the surrounding skin is swollen, you observe pus or there is bleeding from the site.

Overgranulation

Granulation tissue is the result of the body trying to repair itself. You may recognise overgranulation as a clear brownish discharge and occasional bleeding or as a pinkish raised tissue. The tissue may proliferate and require treatment. If bleeding occurs or a large amount of tissue builds up, contact a member of your gastrostomy care team for advice.

When sickness and/or stomach cramps occur:

- See section on 'Venting/Decompression'.
- You may need to slow the rate of feeding. Contact your dietician if this problem continues.
- The feed may be too cold, let the feed reach room temperature before administering it.

When diarrhoea occurs:

- The rate of feeding may need to be slowed down.
- If diarrhoea continues contact your doctor.

When vomiting occurs:

- See section on 'Venting/Decompression'.
- You may need to slow the rate of feeding.
- Always check expiry dates of feed.
- The feed may be too cold. Let the feed reach room temperature before administering it.
- If your child continues to vomit and the above simple steps have not helped you should contact your doctor.

Tube falls out prior to its planned removal

If a gastrostomy tube falls out the tract can close within one to two hours. The following actions should be taken **immediately** by either a nurse/doctor/parent/carer to prevent complications.

1. Stay calm
2. Place a clean tissue, handkerchief or towel over the stoma site (hole) to prevent stomach contents leaking onto clothes/skin.
3. Collect together the equipment which will be needed to place a new tube:
 - o Spare tube provided for emergency use.
 - o Lubricating jelly (for example, KY jelly) (optional).
4. Wash your hands.
5. Check the expiry date on the packaging prior to opening it.
6. If lubricating gel is used apply a small amount to the tip of the tube.
7. Gently push the device into the tract (push in _____ cms)
8. Hold the gastrostomy tube still by placing a finger and thumb on either side of the external disc to support it.
9. Tape the tube to the child's skin to prevent movement.
10. Wash hands and dispose of the equipment.
11. **Do not use this tube.**
12. Seek urgent advice by using the contact numbers at the end of this leaflet.

If you are unable to insert your regular sized tube:

If you are unable to insert your spare tube or can't get the tube which fell out back into the tract, the stoma may have started to close. In the first instance, further surgery may be prevented if a smaller sized tube can be inserted, for the tract to be dilated later.

1. Attempt to pass a smaller tube (this may be a smaller sized gastrostomy tube, a Nasogastric tube or a catheter).
2. Tape the tube to the skin.
3. **Do not** use this tube.
4. Seek urgent advice by using the contact numbers at the end of this leaflet.

Details of your/your child's Monarch gastrostomy tube

Insertion date	
Size of tube	
Elective change to low profile balloon retained 'Mic-key' button	

Contact numbers for your gastrostomy care team

Position	Name	Contact number
Nurse Specialist (Paediatric General surgery) Monday to Friday 08:00 to 18:00		
On-call Paediatric Surgery Registrar (Out of working hours)+		
Nutrition Nurse Specialist		
Dietitian		
Community Paediatric Nurse		
Home delivery company		



We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk

**Document history**

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