

Children's Services

Caring for a malecot gastrostomy tube

Introduction

- A gastrostomy (gastrostomy tract) 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.

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

A malecot gastrostomy tube is a rubber 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 wings and also externally by a suture (stitch) and tapes.

A malecot 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).

Internal wings



Internal wings: Used to secure tube internally
Suture: Stitch used to secure tube externally

Advantages of a malecot gastrostomy tube

- More cosmetically pleasing than a nasogastric (NG) tube.
- Can be changed to a low profile gastrostomy tube with ease without the need for a further anaesthetic.

Disadvantages of a malecot 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.
- Recovery time post insertion is longer than that for endoscopically placed tubes.
- Requires careful care/securing as it can be pulled out with relative ease.

Administering feed/fluids via a malecot gastrostomy tube

- Your gastrostomy care team (Nutrition Specialist/Nurse Specialist/Dietitian) will recommend a feeding plan suitable for your child's needs and will provide teaching for you on how to administer it. 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 maintain tube patency (prevent blockage) a flush should be administered after a feed has been given. (See section 'flushing').
- Your gastrostomy care team will teach you how to administer feeds whilst your child is in hospital.

Administering medication via a gastrostomy tube

Administering medication correctly will avoid the gastrostomy tube becoming blocked.

- 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 accessing a gastrostomy tube.

General care

Cleaning/Skin care

- The area where the tube goes through the skin is called the stoma site. You may experience 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.
- 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, ie 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 dietitian, a minimum of 20mls of water should be used for flushes after feeds. Your dietitian 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.
- 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

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 wrapped around the malecot tube and then through the skin 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 malecot 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.

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 malecot 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 to travel (with your child) but it is advised that you discuss travel plans with you 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 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.
- If you are travelling abroad you may wish to contact HALF PINNT ('Patients on Intravenous and Nasogastric Nutrition Therapy'). They can provide you with useful information re travelling with a child who has a gastrostomy tube including travel insurance advice. (See contact details at end of leaflet).
- Your home delivery company will also offer practical advice.

What happens when the malecot 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 malecot tube on the ward; this is usually uncomfortable rather than painful if paracetamol has been given earlier.
- Once the malecot tube is removed the Nurse Specialist will measure the length of the gastrostomy tract with a special 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 falls out prior to its planned removal

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

1. Open MIC-G tube packet.
2. Check balloon by inserting 5mls of sterile (cooled boiled) water into the balloon and then removing the water again. Also check that the round clear disk slides up and down the tube (it will be stiff as it is new).
3. Put small amount of KY jelly onto the end of the MIC G tube.
4. Gently push the MIC G tube into the gastrostomy tract.
5. Once the tube is inserted 4cms (markings are available on the side of the tube) inflate the balloon using 5mls of sterile water (the balloon port is green).
6. Gently pull back on the tube until resistance is felt.
7. Once resistance is felt, slide the round clear disk down to meet the skin to prevent the tube moving about in the tract.
8. Aspirate a few mls of stomach contents via the clear / white port and check on pH strip to ensure tube is definitely inside the stomach (acid pH is one to five) or on blue litmus paper (turns pink). **Do not** use the tube if you are unsure of its position.
9. Once in place the MIC G tube can be used for feeding/medications (for up to three months).
10. Inform your Nurse Specialist so that arrangements can be made for a low profile gastrostomy tube (button) to be inserted.

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 7-10 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 tubes initial insertion you should contact a member of your gastrostomy care team.

Feed leakage from stoma site

- 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 dietitian 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 to the tube and 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 has stomach cramps occur:

- See section on 'Venting/Decompression'.
- You may need to slow the rate of feeding. Contact your dietitian 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.

Details of your/your child's malecot gastrostomy tube

Make of tube:

French size (Fr):

Length of tube (cms):

Contact numbers for your gastrostomy care team

Position	Name	Contact number
Nurse Specialist		
Nutrition Sister		
Dietitian		
Community Paediatric Nurse		
Home Delivery Company		
HALF PINNT ('Patients on Intravenous and Naso gastric Nutrition Therapy')		01582 765238

Please ask if you require this information in other languages, large print or audio format:
01223 216032 or patient.information@addenbrookes.nhs.uk

Potete chiedere di ottenere queste informazioni in altre lingue, in stampato grande o in audiocassetta.

Italian

若你需要本信息的繁體中文、大字體或音訊格式的版本，請要求索取。

Cantonese

तमने आ माहिती वीछ भाषाओमां, मोटा अक्षरोमां अथवा सांभली शकाय जेवा माध्यम
(ओडीओ इमेज)मां जेठती छोय तो कृपा करीने पूछो.

Gujarati

تکایہ پرسیار بکے نہ گہر نہ وزانیاریہت دہوی بہ زمانیکی تر , بہ بیٹی گہورہ یانیش بہ شیوہی دہنگ

Kurdish

آگر آپ کو یہ معلومات دوسری زبانوں میں، بڑے الفاظ کی اشاعت میں یا آڈیو ٹیپ پر درکار ہوں تو براۓ مہربانی اس کیلئے درخواست کریں۔

Urdu



Addenbrooke's is smoke-free. Please do not smoke anywhere on the site.

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

Document history

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