Having a Radiologically Inserted Gastrostomy (RIG)

Information for Patients

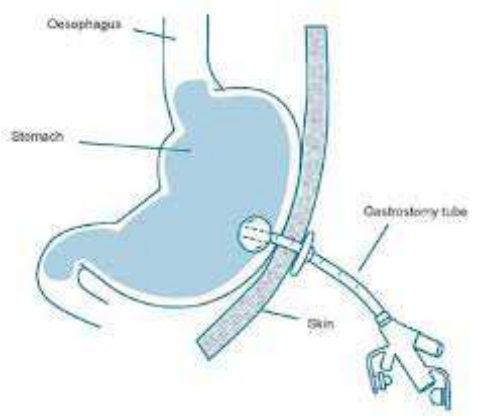
In this leaflet:

Introduction

This leaflet tells you about the procedure known as a Radiologically Inserted Gastrostomy (RIG). It explains what is involved and what the possible risks are.
If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you in the Interventional Radiology department.

What is a RIG feeding tube?

A RIG feeding tube allows liquid feed, water and medication to go directly into the stomach. It is placed directly from the surface of the skin into the stomach through the stomach wall, as shown in the image.



Why do I need a RIG?

A RIG tube bypasses the throat and gullet. It can be used for people who have difficulty with swallowing or if there is a possible risk of food and drink 'going the wrong way' into the lungs. A RIG may also be used for people who have a blockage at the back of the throat, in the mouth or in the gullet, which prevents food from getting into the stomach. It can be for short-term or long-term use.

Are there any risks?

Although the procedure is relatively safe and major complications are rare, there are risks involved as with any medical treatment.
The risk of major complication during or following the procedure is between 1 - 3%.
The risk of mortality is 0.5%.

Risks include:

- **Bleeding:** Minor bleeding may occur which does not usually require additional treatment. The risk of this is 1-3%.
- **Infection:** Infection can occur at the tube insertion site. Antibiotic treatment would be required and careful monitoring of the tube and insertion site.
- **Leakage:** Leakage may occur around the RIG site resulting in red and sore skin. If this happens, see the section on skin care in this leaflet, or seek advice from one of the contact numbers at the end of this leaflet.

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- **Tube dislodgement:** Occasionally the RIG tube can become dislodged and fall out and will need replacing. If this occurs you should place a dry dressing on the site and seek help from one of the contacts at the end of this booklet as a matter of urgency. Trained professionals can replace a tube through the existing hole. This needs to be done very soon after an accidental displacement. For this reason you should seek help as soon as possible if your tube falls out.

- **Rare complications:** There could be serious damage or perforation to the bowel or internal organs; this is a rare complication. This may lead to peritonitis (severe internal infection) which will require urgent medical treatment, and rarely surgical treatment. Signs of perforation include a temperature and severe pain. The risk of peritonitis is 2%.

Occasionally it may not be possible to place the tube safely in to your stomach. Under these circumstances your doctors or nurses will discuss other options with you.

It is important that you are aware of and understand the risks before you agree to have a RIG tube inserted. A member of your medical or nursing team will discuss this with you.

Are there any alternatives?

Feeding can sometimes be achieved by passing a thin tube through the nose and into the stomach called a nasogastric tube, but this method of feeding is more visible and generally suited to short-term use. For patients who need tube-feeding for longer periods of time, a RIG is more comfortable and easier to manage at home. RIG tubes are also more discreet as they can be hidden away under your clothes. If you would like to discuss the options available to you, please speak to your medical team or nutrition nurses.

What do I need to do to prepare for the procedure?

If you are taking Warfarin, aspirin or other blood thinning medications (such as Phenindione, Clopidogrel Rivaroxaban, Prasugrel, Dabigatran, Apixaban), please inform the Radiology department at least one week before the procedure, as these may need to be stopped for a number of days before the examination. Please continue to take all your other medications as usual.

You will need to have a blood test before the procedure to check your blood clotting. Your doctor or clinical nurse specialist will tell you about this and how to arrange it.

You may already be an inpatient or, if not, you will be admitted into hospital on the previous day or the day of your procedure. On admission you will be informed of the approximate time of your procedure. However, this may change due to unforeseen circumstances.

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You will not be allowed to eat or drink for 6 hours before the procedure. If you have a nasogastric feed this must be stopped six hours before the procedure. You will be able to take your medications with small sips of water. If you have diabetes, please phone the Radiology department for specific advice on 01225 824375.

What happens before the procedure?

When it is time for the procedure you will be taken on your bed to the Radiology department, where you will be welcomed by the radiology staff:

- The Radiologist is a doctor specially trained to interpret X-rays and scans and to perform image-guided procedures.
- Radiographers are specially trained health professionals who move and control the radiographic equipment during the procedure.
- Radiology Nurses work with the radiologists and care for the patient during interventional procedures.

A nurse will check your details. If you are allergic to anything (such as medicine, latex, plasters) please tell the nurse.

The radiologist will explain the procedure answering any questions you or your family may have. When all your questions have been answered you will be asked to sign a consent form for the procedure.

What happens during the procedure?

You will be taken into the Interventional radiology room and helped onto the X-ray table. The radiologist will perform an ultrasound scan of the liver before starting the procedure.

You will have a device attached to your finger to monitor your heart rate and breathing. A cuff will be placed on your arm to monitor your blood pressure (please inform the nurse if there is a reason why a certain arm cannot be used). You will be given oxygen via a mask or tubing under your nose.

An X-ray camera suspended over the table will be used to take images during the procedure. It will come close to you but will not touch you.

A nasogastric tube is passed through the nose and down the oesophagus (gullet) into the stomach, either on the ward or in the X-ray department. The nasogastric tube is used to inflate your stomach with air to make it clearly visible on ultrasound and on X-

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ray before the RIG tube is inserted. Although this is done slowly, you may feel uncomfortable.

You may be given a sedative and painkillers though a cannula in your hand/arm. The skin of the upper part of your abdomen (tummy) will be cleaned with antiseptic fluid and covered with a sterile drape (towel).

The radiologist will give you an injection of local anaesthetic to numb the area where the tube will be placed. This may cause some stinging, but it will only last a short time.

Stitches will initially be inserted into the stomach through a small needle and secured on the skin with buttons, as shown in the picture.

A small cut will be made in the skin and the tube will be passed through this into the stomach.

What happens when the procedure is finished?

You will be taken back to the your ward, where you will need to rest in bed for about 6 hours. You will have your pulse, blood pressure and if necessary your temperature taken to ensure there have been no complications.

It is common to feel bloated after the procedure because air in the stomach is passing through the bowel - this should settle.

The feeding tube is flushed with sterile water six hours after the procedure, or at a safe time determined by the Radiologist. If the tube flush with water is satisfactory the nasogastric tube will be removed two hours later, or at a time stated by the Radiologist. After the tube flush you will be allowed to eat and drink, or the tube will be used to give feed and fluid.

The dressing over the site will be removed the day after the procedure.

The site of the tube may be sore for two or three days. You may have medication to ease any pain until it settles.

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You will need to seek immediate advice if any of the following occur:

- Fever
- Pain on feeding through the tube or any increasing level of pain following the tube insertion
- Fresh bleeding around the stoma (hole)
- Leaking of feed or stomach contents around the tube and stoma (hole)
- The tube becomes blocked or difficult to flush
- The tube falls out
- The stitches dissolve and the button falls away within the first week.

If any of the above occur stop feeding and seek advice immediately from the community nutrition nurse (see relevant contacts at the end of the leaflet).

Aftercare for the tube

Important - Do not rotate the tube for the first two weeks after placement.

- The dietitian will undertake an assessment of what you are currently eating to determine how much feed needs to be given through the tube
- If feeding via the tube does not need to be started immediately because you are able to eat and drink to meet your nutritional requirements, you will need to be taught how to manage and care for the feeding tube
- You will need to flush the tube at least once a day with freshly drawn drinking tap water to maintain tube patency
- If feeding does need to start immediately the Dietitian will prescribe a feeding plan and you will need to stay in hospital for a few days. This will enable feeding to be established and you will be taught how to manage and care for the tube and feeding equipment
- The Dietitian will also explain how the feed and equipment will be delivered to you at home after discharge
- Medication can be given through your tube and wherever possible will be in a liquid or dispersible form. A pharmacist can advise on this
- The stitches will usually dissolve (and the buttons fall off) after two to four weeks. If after two weeks the stitches are causing any problems or irritation, they can be cut by the community nurse.

Important - Do not rotate the buttons

Initial care

It is particularly important to clean your hands thoroughly before any contact with the feeding tube or feeding equipment.

For the first two weeks following the tube placement, clean the site around the tube with sterile gauze and saline. This will be supplied by the hospital.

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You may take showers, but not baths during these first two weeks.

If you have any concerns about the skin around the tube please contact the community nutrition nurse or your district nurse.

Ongoing care

Skin Care

- After two weeks the skin around the tube should be cleaned daily with soap and water using a clean cloth, and you may continue to have showers
- Once the stitches have dissolved and the buttons have fallen off you may have a bath
- There is no need to have any dressing around the RIG site
- If you notice any redness, pain, odour or discharge you should contact your community nutrition nurse for advice.

Flushing the RIG tube and preventing blockage

- Always flush the tube before and after administration of feed and medication
- Use 30-50mls of freshly drawn drinking tap water unless you have been advised to use an alternative
- If you are unable to flush the tube due to resistance, gently massage the tube around the area where any blockage may be visible
- Try flushing with warm water or carbonated water. Do not use any other fizzy drink as they are acidic and will possibly make the blockage worse
- Try withdrawing liquid from the tube and use a pumping motion to try and flush.

Feeding

There are two ways in which you can administer feed. The dietitian will discuss with you the amount of feed you require and the type of feeding which may be most suitable for you. With administration of any feed or medication it is essential that the tube is flushed with at least 30mls of water before and after.

Bolus feeding

- Bolus feeding refers to giving feed through a 50ml syringe, which will fit directly onto the end of your feeding tube. The plunger should be removed from the syringe so the feed is given using the barrel of the syringe like a funnel
- This method of feeding will need to be undertaken several times a day as directed by the dietitian.

Pump feeding

- A bag of feed can be administered using a pump. This requires a giving set (tubing), which connects the bag of feed to your feeding tube, which is delivered by using a small pump
- This will run for several hours per day
- Specific details and separate written instructions about the use of a pump will be given prior to use.

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Checking the balloon inflation of your RIG tube

- The fluid in the balloon helps keep the tube in place
- The balloon of your tube needs to be checked weekly
  This should commence when the tube has been in place for two weeks.
  Two syringes and sterile water are required:
- Fill one syringe with 5mls of sterile water
- Attach the empty syringe to the balloon port of your tube
- Hold your tube in place next to your skin or use to tape
  to secure the tube to prevent accidental removal. Whilst keeping the tube secure, pull back the plunger of this syringe removing all the water from the balloon.
- Remove this syringe (confirm that it has the same volume of water is present as was originally placed in the balloon.)
- Attach the new syringe with the fresh 5mls of water. Instill this water into the balloon.
  If the volume of water removed from the balloon is less than amount originally placed advice should be sought, as this could indicate a problem with the function of the balloon.

Advancing and rotation of the RIG:

This is to ensure that the tube remains freely moving within the tract. Advancing and rotation should be carried out at least once a week but not more than once a day. This should only be commenced two weeks after insertion.
This means holding the end of the tube and rotating it 360°
(a complete circle) and pushing the tube approximately 2–3cm into the stomach and pulling it back to the original position.

- Do not rotate the tube if the site is discharging or not healed
- Wash hands thoroughly with soap and water
- Clean the external plate as advised by your Healthcare Professional
- Move plate away from skin
- Clean tube and stoma area and the underside of the plate and dry. Push 2 – 3cm of the tube into the stomach and rotate, gently pull back the tube to feel resistance.
- Place the fixation plate back to its original position (approx 1cm away from the skin).
  Your fixation plate should not be too tight or too loose; you can discuss concerns with your community nutrition nurse.

More information

This information is relevant to the type of tube inserted at the Royal United Hospital Bath. It is based on current research findings and follows manufacturer's guidelines.

For information about the effects of x-rays read the National Radiological Protection Board (NRPB) publication: 'X-rays how safe are they?' on the website:
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947388410

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You will receive one week's supply of all equipment you will need on discharge. Further equipment will be delivered to you, at home, during that first week.

Support at home is organised and depends upon where you live. Relevant contact numbers are at the end of this booklet.

Removal of the Gastrostomy Tube
When the medical team and dietitian decide you no longer need the tube it can easily be removed and does not involve any further X-ray procedures.

Any questions?

We will do our best to make your visit as comfortable and stress free as possible. If you have any questions or suggestions for us, please contact the Interventional Radiology department on 01225 824375.

General enquiries and support should be directed to your community nutrition nurse.
Careline 08452501058
If your enquiry is urgent and you do not get a timely response from your community nutrition nurse please contact one of the numbers below:

In office hours contact your GP

Out of office hours please ring the out of hours helpline 08457 623636, or call your GP out of hours service

The Nutrition Nurse Specialists at the RUH are Judith Bruce and Zoe Warman. They may be contacted for general advice on 01225 821954. They are usually available in office hours but there are occasions when the office is not staffed. For this reason we do not recommend leaving any messages of an urgent nature on this number.

Please bring this leaflet with you if you need to attend hospital with any concerns about your feeding tube. This will ensure appropriate advice is given which is specific to this type of tube.

How do I make a comment about my procedure?

If you have any concerns or suggestions following your procedure, please contact the Patient Advice and Liaison Service (PALS),
Royal United Hospital Bath NHS Trust, Combe Park, Bath BA1 3NG.
Email: ruh-tr.PatientAdviceandLiaisonService@nhs.net
Tel: 01225 821655 or 01225 826319

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