



Radiology

Radiologically inserted gastrostomy (RIG) tube insertion

This information is for patients who may benefit from having a RIG tube put in to manage their nutrition and hydration needs. It should be given together with advice from the Nutrition Team, as this procedure is not appropriate for some patients.

This leaflet may not answer all your questions, so if you have any concerns, please contact the nutritional team or the X-ray Department. If you feel unhappy with any part of your care within the X-ray Department, please ask to speak to a senior member of staff.

Please read this leaflet carefully to ensure you are successfully prepared for the examination.

Please contact the X-ray Department if your weight is equal to or more than 205Kg (32 stone) - you may require an alternative procedure.

Points to remember

- Please bring any sprays or inhalers that you are using with you to the Xray department
- Please leave any valuable possessions on the ward.
- If you are taking aspirin or warfarin, please inform the ward staff, as this medication may need to be stopped before the procedure.



What is a RIG tube?

A radiologically inserted gastrostomy (RIG) tube is a special plastic tube which is put into your stomach to allow liquid feed and fluid to be given. A RIG is usually put in if you have problems swallowing or if you are unable to eat or drink enough.

A RIG tube is inserted using X-ray scanning equipment to position it.

The procedure will be performed by a radiologist (a specialist X-ray doctor) who will be assisted by a radiographer and a radiology nurse. It is not always easy to predict how long the procedure will take. As a guide, expect to be in the Radiology Department for one hour.

Risks of the procedure

X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives. This comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the procedure. We will take all precautions to minimise the amount of X-rays you receive.

Patients aged 12 – 55 years, could you be pregnant? The risks of radiation are slightly higher for the unborn child, so you will be asked to confirm that you are not pregnant before the examination can proceed.

Potential benefits

For many patients, having a RIG feed will make sure that they receive enough nourishment and fluids daily on a medium to long term basis. For some, it is the safest and most comfortable method of feeding. Once the tube is placed, it sits on the skin underneath your clothes.

Having a RIG tube also enables some medications to be given routinely. This can be discussed with your nutrition nurse and doctors.

Potential problems

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The chance of these complications happening will vary for each patient, and the possibility of these complications happening to you will be discussed with you.

If you are not well enough to have the procedure, for example if you have breathing problems or blood clotting problems, the procedure will be cancelled for your own safety.

Alternative feeding methods will be recommended until you are well enough to safely have the procedure.

Having the RIG tube inserted may result in complications such as:

- Infection of the skin around the tube
- Bleeding and infection
- Breathing difficulties
- Pain
- Feed entering the lungs from the stomach causing pneumonia
- Accidental removal or partial removal of the tube

Despite these possible complications, the procedure is normally very safe. At all times during and after the procedure, the staff will be monitoring your response to this treatment to minimize the effects of any complications.

Referral and consent

If you are having the RIG as a planned procedure, then you should have plenty of time to discuss the situation with your consultant, nutritionist, and the radiologist (a specialised X-ray doctor) who will be performing the procedure. If after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms do not mean that this procedure is needed, they will explain this to you, communicate with the referring clinician and ask that you return to your referring clinician or ward for review. At all times the radiologist and referring clinician will be acting in your best interests.

Before the procedure

Before having a RIG tube inserted, you will have an individual assessment with the Nutrition Team. They will consider your medical condition and the most appropriate and safest methods of providing nutrition and hydration. Many of the conditions that result in the need for a RIG tube for feeding can have a serious outlook in themselves. The risks of the procedure in these circumstances are much higher than normal and the outlook, even with treatment and feeding, can be poor.

If the RIG tube is considered to be in your best interests, your doctors and the Nutrition Team will discuss the procedure and talk to you and your relatives if you wish, about the risks and benefits, to make that you are happy with the process and are able to make an informed decision.

If it is agreed that having a RIG tube inserted is appropriate, an appointment will be made with the X-Ray Department. This can often take at least a week and alternative methods of feeding will be recommended in the short term.

For the procedure, you will need to be admitted onto a ward the evening before your appointment - this will allow you to be fully prepared for your examination. You will be contacted by the clinical team to organise this. A nasogastric tube will need to be inserted through your nose into your stomach and you will be asked to drink some contrast medium. Please note, without the NG Tube or the oral preparation your procedure may not be able to proceed.

You will be asked to sign a pink consent form confirming that you understand the procedure and are aware of the risks and benefits it entails. This will be done either in an outpatient clinic or on the ward before you have the procedure done.

When you arrive in the X-ray department, the consultant radiologist will discuss the procedure with you again before also signing the pink for to reaffirm that you have consented for the procedure.

Preparation

- You will have had some blood tests to check your blood clotting ability and kidney function.
- A cannula (a fine tube) will be inserted into a vein in your arm.
- A nasogastric tube (a tube that goes from your nose to your stomach)
 will be inserted. You will be prescribed some contrast medium which
 you need to consume 24 hours before your procedure (this is a vital
 step for your test to go ahead).
- Please do not eat for the 6 hours prior to your procedure time. You
 can drink water only during this time, but you must stop 2 hours before
 your procedure time.

During your examination

The procedure will again be explained to you by the Radiologist and you will be able to ask any further questions that you may have.

- You will be taken into the X-ray room where you will be asked to get onto the X-ray table and lie on your back.
- You will be given some sedation and pain relief through the cannula in your arm.
- If you don't already have a tube through your nose, one will be inserted so air can be placed in your stomach – this is done to make room for the RIG.
- Your abdomen will be cleaned (above your tummy button to the left) with antiseptic fluid and covered with sterile sheets.
- The radiologist will give you an injection of local anaesthetic around the area the RIG will be inserted. This will cause some stinging initially but then the area will go numb. Throughout the procedure, a nurse will monitor your pulse and blood pressure and may give you some oxygen.
- The radiologist will use X-rays to decide on the most suitable point for inserting a needle. A fine wire is then put through the needle and used to guide the RIG tube into your stomach.

- The tube will then be fixed to your skin surface with a dressing placed over the top of it. We will explain what is happening throughout the procedure.
- The procedure takes approximately 30 minutes.

After your examination

If you have any problems after the procedure, please speak to the staff on the ward.

After the procedure a nurse will take you back to the ward. Your blood pressure and pulse will be taken at regular intervals.

What will I be fed?

You will be seen by the dietitian who will prescribe your feed to meet your nutritional needs. A liquid feed, which is specially made to be given through the RIG and other feeding tubes will be used. This will provide you with all the calories, protein, vitamins and minerals you require, and may be administered using a feeding pump or a syringe depending on how much you need.

Frequently asked questions

What if I am unable to give consent for the procedure?

Where it is clear that you fully understand but are unable to sign a consent form, you can show your agreement and have this witnessed.

For patients who cannot understand or are unable to make a decision, the medical team will need to make the decision in that persons best interest. They can be guided by knowledge of that persons wishes, where known, with help from the family or others close to them.

No other adult may give or withhold consent on behalf of another in these circumstances.

Will I be able to eat and drink with the RIG tube in?

If a speech and language therapist or doctor advises you that it is safe for you to eat and drink, the tube will not prevent you from doing so. Your RIG feed will be adjusted by a dietitian to take this into account.

Will I be able to go home with my RIG feed?

Yes, many people live in their own homes or nursing homes and manage their own feeding, sometimes with help from relatives or carers.

How will I know how to give myself the feed?

Training for you and your carers or relatives will be arranged before you are discharged by the community nutrition nurse. The community nutrition nurse will advise you how to use the feeding pump (if necessary) and how to set up the feed and administer it.

Where will I get my feed and equipment from?

You will be provided with a feeding pump, if required, before you go home and a small supply of the feed "giving sets" and syringes.

Once you are at home, a company called "Homeward" will deliver the feed and equipment you need. Alternatively, you will be able to get your feed from your local chemist. This will be organised by the dietitian.

Can I have a bath or shower?

Yes you can. However for the first 4 weeks following RIG insertion we would advise you to have a shallow bath so the RIG site is not submerged in water. After this period, you can have baths as usual. You can shower as usual from the day of RIG insertion.

Who will I be able to contact if I have a problem with my feed at home?

Before you are discharged, a dietitian or the nutrition nurse will give you contact numbers for the:

- community nutrition nurse
- community dietitians
- feed delivery company

Contact them if you have any problems.

Can I go out and about with my RIG feed?

Yes. Your feed can be timed to allow you to go out, or a "carry pack" will be provided so that you can be mobile while your feed is running.

Will I need to keep the RIG tube in forever?

No. If it becomes safe to swallow food and drink and you are managing to eat enough nutrients and drink enough fluids, the RIG tube can be taken out.

Contact numbers

Clinical Nurse Specialist for Nutrition: 024 7696 6074

Community Nutrition Nurses: 024 7696 6094 or 07733 225026

Coventry Dietitians: 024 7696 6161

Produced by the Nutrition Team & Radiology Department, University Hospitals Coventry & Warwickshire NHS Trust

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