Radiologically inserted gastrostomy (RIG)
A guide to the procedure
Information for patients
If there are leaks of fluid around the tube, **OR** pain on feeding **OR** new bleeding, **OR** the gastrostomy tube falls out, stop feed immediately and telephone for urgent advice.

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Your medical team and Dietitian feel that a feeding tube may be appropriate for you. This booklet has been designed to help you understand more about gastrostomy tubes, why they are used, how they are inserted and the care needed afterwards.

This document is not meant to replace informed discussion between you and your Doctor, but can act as a starting point for such discussions.

**What is a gastrostomy?**

A gastrostomy is a feeding tube placed through your abdominal wall into your stomach. This tube can be inserted by a number of techniques: using x-ray guidance (RIG), with the help of endoscopy or by surgery.

Radiologically inserted gastrostomies (RIGs) are usually reserved for patients who are unable to have endoscopy because of problems such as throat cancer. Surgery is reserved for patients who cannot have the tube inserted by one of the less invasive techniques. RIGs inserted at Leeds Teaching hospitals have a balloon at the tip that is blown up by being filled with water. This holds the tube in your stomach.
Why do I need one and what are the alternatives?

If you have difficulty eating and drinking, it may not be possible for you to have all the nutrients and calories you need. The gastrostomy tube allows you to have some, or all of the food and fluid you need without having to swallow it. Liquid feed, water and medication can be given directly into your stomach.

An alternative is that you can be fed through a tube placed down your nose into your stomach.

How is the RIG placed?

A specially trained doctor called a radiologist uses x-ray equipment to guide the tube into your stomach.

Are there any risks?

Occasionally, it is not possible to place the tube into your stomach. This may require a different method of placement or you may need an operation to place the tube.

Sometimes, there is a leak around the tube. This can lead to the skin around the tube becoming very red and painful. It may also lead to a general abdominal infection (peritonitis). An attempt will be made to treat this but it may become necessary to remove the tube to allow healing to occur. An operation may also be needed to sew up the hole in your stomach.

Damage to structures surrounding the stomach such as the bowel and the liver is a possibility and an operation may be necessary to address any problems. As imaging technology is used to guide the insertion, this complication is very rare.
Very rarely, a blood vessel can be punctured when passing the needle into the stomach; this can result in bleeding. This may stop by itself but you may need a blood transfusion. Occasionally, it may require another procedure to block the bleeding artery or an operation to stop the bleeding; however, this is extremely rare.

**Are you required to make any special preparations?**

A RIG is usually carried out under local anaesthetic with some painkillers and sedatives, if necessary. You will be asked not to eat or drink for 6 hours before the procedure. You may be asked to have special washes in the 2 days prior to the procedure. You also may be asked to drink a special preparation the night before the procedure. This contains an agent (contrast) which will help the doctor avoid damaging structures around your stomach.

When in hospital, a small cannula (thin tube) will be placed into a vein in your arm through which you will receive antibiotics.

If you have any allergies or have previously had a reaction to the x-ray dye (contrast), you must tell your doctors and nurses at the first opportunity.

**Where will the procedure take place?**

The procedure is performed in radiology theatres. This is similar to an operating theatre into which specialised x-ray equipment have been installed.
What happens during the procedure?

You will be asked to get undressed and put on a hospital gown. You will lie flat on your back. You may have monitoring devices attached to your chest and finger and may be given oxygen. If you do not already have one inserted, a small tube will be placed through your nose into your stomach. The procedure is performed under sterile conditions and the interventional radiologist will wear a sterile gown and gloves to carry out the procedure.

The skin below your ribs will be swabbed with antiseptic and you will be covered with sterile drapes. The interventional radiologist will use x-rays, once your stomach is filled with air to decide the best site for the RIG. Local anaesthetic will be injected into the skin to numb the area and you may be given sedation. A gastrostomy tube, as well as small devices which hold the stomach close to the wall of the abdomen will be placed through small incisions in the skin.

The procedure should take between 30 and 60 minutes.

Will it hurt?

When the local anaesthetic is injected, it will sting for a short while but this soon wears off. There may be a little discomfort during the procedure but any pain that you have will be controlled with painkillers. You may be aware of the tube being passed into your stomach but this should just be a feeling of pressure.
**After the insertion**

You will be taken back to the ward where the Nurses will continue to monitor you. The tube in your nose will be removed. The area around the RIG may feel quite bruised for a few days and you may need to stay in hospital until the Doctors, Nurses and Dietitians are satisfied the RIG is working correctly.

If you are to start feeding through the RIG straight away, the feeding regime will need to be established. A supply of feed and equipment will be given to you before you are discharged from the hospital, or arrangements may be made for this to be delivered to your home.

**Looking after your RIG**

You will be given a separate booklet and training about looking after your RIG. The nursing team will help you look after your RIG and insertion site regularly. They will teach you about the care of the tube, including the importance of maintaining the water inside the balloon. This ‘balloon water check’ will be undertaken every 1 - 2 weeks to prevent the tube falling out. The nursing staff will do this for you until you feel confident to do this yourself.

**How long will the RIG stay in?**

This depends, if and when, you can swallow safely, or take enough nutrition and fluid by mouth. Your Dietitian and Speech and Language Therapist will give you more information about this. Generally, the tube is changed every 3 months. This is a simple procedure and can take place by the specially trained Nurses at home.