Percutaneous Gastrostomy/
Radiologically Inserted
Gastrostomy (RIG)

Introduction
This leaflet tells you about the procedure known as a percutaneous gastrostomy. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

Whether you are having the percutaneous gastrostomy as a planned or an emergency procedure, you should have sufficient explanation before you sign the consent form.

The Medical Imaging Department may also be called the x-ray or radiology department. It is the facility in the hospital where radiological examinations of patients are carried out, using a range of x-ray equipment, such as a CT (computed tomography) scanner, an ultrasound machine and a MRI (magnetic resonance imaging) scanner.

Radiologists are doctors specially trained to interpret the images and carry out more complex examinations. They are supported by radiographers who are highly trained to carry out X-rays and other imaging procedures.

What is a percutaneous gastrostomy?
Percutaneous gastrostomy is a technique whereby a narrow plastic tube is placed through the skin, directly into your stomach. Once in place the tube can be used to give you liquid food directly into your stomach, to provide nutrition. Because it is done through the skin, it is called percutaneous, and gastrostomy means making an opening into the stomach.

Why do I need percutaneous gastrostomy?
There are several reasons why you may not be able to eat normally at the present time. There may be a blockage at the back of your throat or in your gullet (oesophagus), and this is preventing food going down normally. It may be that you have had a stroke, and that this is causing you difficulty in swallowing, or your gullet may not be working properly for other reasons. If you have had a small plastic tube inserted through your nose, down into your stomach, it may not be large enough to get adequate amounts of food into your stomach. Obviously, if you do not receive enough nutrition, then you will become very ill.

Who has made the decision?
The doctors in charge of your case and the radiologist performing the percutaneous gastrostomy will have discussed the situation and feel that this is the best option. However, you will also have the opportunity for your opinion to be taken into account and if, after discussion with your doctors you do not want the procedure carried out, you can decide against it.
What are the options or alternatives?
The alternative would be an open operation.

Who will be performing the percutaneous gastrostomy?
A specially trained doctor called a radiologist will perform the procedure. Radiologists have special expertise in using x-ray and scanning equipment and also in interpreting the images produced. They need to look at these images while carrying out the procedure.

Radiographers and radiology nurses will be present in the room to assist during the procedure, they will introduce themselves at the start of the procedure.

Occasionally student radiographers or medical students will be present to observe the procedure.

Where will the procedure take place?
The procedure is generally carried out in the Medical Imaging Department in a special ‘screening’ room, adapted for this sort of specialised procedure.

How do I prepare for percutaneous gastrostomy?
- You need to be an inpatient in the hospital.
- You may receive a sedative beforehand to relieve anxiety, and possibly an antibiotic. You will be asked to put on a hospital gown.
- You will have had some blood tests performed before the procedure to check that you do not have an increased risk of bleeding.
- You are asked not to eat for 4 hours prior to the procedure. You may drink a little water.
- If you have any allergies or you have previously reacted to intravenous contrast medium, you must let the doctor know. Intravenous contrast medium is the injection we give you during some scans.
- If you are diabetic, please contact the Medical Imaging Department on 01392 402336 selecting option 2, in-patient enquiries and then option 8 for the radiology nurses.
- If you normally take any medication to thin your blood (anticoagulation or antiplatelet drugs) such as: warfarin / clopidogrel / aspirin / non-steroidal anti-inflammatory drugs (NSAIDs / brufen / ibrufen / nurofen) / dabigatran (Pradaxa) / rivaroxiban (Xarelto) / Apixaban (Eliquis) / phendione / acenocoumarol – then these may need to be stopped or altered. Please seek the advice of your hospital consultant or nurse specialist as soon as possible, ask your GP, or contact the Medical Imaging Department on 01392 402336 selecting option 2, in-patient enquiries and then option 8 for the radiology nurses.
- After discussion with your GP or referring clinician, and if it agreed you can safely stop these medications, it is recommended that: Warfarin is stopped 6 days prior to your procedure Aspirin is stopped 7 days prior to your procedure Clopidogrel is stopped 7 days prior to your procedure NSAIDS are stopped 2 days prior to your procedure Rivaroxaban (Xarelto) and Apixaban (Eliquis) are stopped 2 days before your procedure. If you are taking Dabigatran (Pradaxa) please consult your doctor or contact the Medical Imaging Department on 01392 402336 selecting option 2, in-patient enquiries and then option 8 for the radiology nurses.
- Other medication should be taken as normal.

Can I bring a friend/relative?
Yes, but for reasons of safety they will not be able to accompany you into the x-ray room.

Valuables
Patients are encouraged to leave their valuables at home. It is the patient’s responsibility to ensure all valuables are on their person before leaving the Medical Imaging Department.
Cancelling your appointment

If you are unable to attend your appointment, we would be grateful if you could contact us on 01392 402336 selecting option one, as soon as possible. We can then offer your original appointment to another patient. A further date and time will then be arranged for you. Please be advised that if you fail to attend your appointment, it may be necessary to remove you from the radiology waiting list.

Please note: If you have had D&V (diarrhoea and vomiting) you will need to contact us to rebook your appointment unless you have been clear for the past 48 hours.

What actually happens during a percutaneous gastrostomy?

You will lie on the x-ray table, generally flat on your back. You need to have a needle put into a vein in your arm so that the radiologist can give you a sedative or pain killers. Once in place this needle will not cause any pain. You will have a monitoring device attached to your finger and may receive oxygen through a small tube in your nose. You may also have a monitoring device attached to your chest.

The Radiologist will pass a narrow tube down your nose and into your stomach. This will come out after the procedure.

The radiologist will keep everything as sterile as possible and may wear a theatre gown and operating gloves. The skin below your ribs will be cleaned with antiseptic and the rest of your body will be covered with a theatre towel. The radiologist will use the x-ray equipment or an ultrasound machine to decide on the most suitable point for inserting the feeding tube. This will generally be below your left lower ribs. The skin in this area will be anaesthetised with local anaesthetic. This can sting a little to start with, but rapidly wears off.

The radiologist will then pass a thin, hollow needle into your stomach using x-rays or ultrasound as a guide. Once the needle is in your stomach, a wire will be placed down through the needle into your stomach. The needle is then removed, leaving the guide wire in place, and then a series of small tubes are passed over the wire, one after another, to enlarge the pathway from the skin into your stomach. Once this pathway is wide enough, a tube (catheter) can be put in through the skin and into your stomach over the guide wire. The guide wire is then removed. The tube will be used to give you food, and is large enough to ensure that you receive adequate nutrition. Once this tube is in place, the radiologist will secure the stomach to the muscles underneath the skin with stitches, to prevent the tube falling out. These stitches dissolve and the outer bit falls off whilst the inner bit falls into the stomach.

Will it hurt?

Unfortunately, while the procedure is being done, it may hurt for a very short period of time, but any pain that you have will be controlled with painkillers. When the local anaesthetic is injected, it will sting to start with, but this soon wears off, and the skin and deeper tissues should then feel numb. Later you will be aware of the tubes being passed into your stomach, but this should just be a feeling of pressure and not pain. There will be a nurse or some other member of staff standing next to you and looking after you. If the procedure does become painful for you then they will be able to arrange for you to have more painkillers through the needle in your arm. Generally, placing the catheter in the stomach takes only a short time and once in place it should not hurt at all.

How long will it take?

Every patient’s situation is different and it is not always easy to predict how complex or how straightforward the procedure will be. It may be over in 30 minutes but occasionally it can take as long as 90 minutes. As a guide, expect to be in the Medical Imaging Department for about an hour and a half altogether.

What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. If you have been up and about previously, then you will generally need to stay in bed for a few hours afterwards, until you have recovered.
It is important to try and look after the feeding tube. You should try not to make any sudden movements (for example, getting up out of a chair or out of bed) without remembering the tube. However, you will be able to lead a perfectly normal life with the tube in place.

What will happen to the results?

A report of the procedure will be recorded in your notes immediately and also sent to your specialist within 48 hours. We aim to report examinations, as soon as possible. Results will be sent to the Doctor who referred you for the investigation, as they may need further review and therefore it could be approximately 20 days before you are contacted by your Doctor.

How long will the tube stay in and what happens next?

This is a question which can only be answered by the doctors looking after you. It all depends on why you needed the tube in the first place. You do need to discuss this fully with your consultant. The tube needs to stay in place until you can eat and drink normally, and in some cases this might not be for a very long time.

The tube will have a little stopper at its end to stop it leaking. When it is time to put liquid food down the tube, the stopper is removed and liquid food is drawn up into a large syringe and sent down the tube to your stomach. You may be able to learn to do this yourself, or someone may need to do it for you. Once enough food has been put down the tube, it is necessary to clean the tube by passing freshly drawn tap water through it, again using a syringe. The stopper is then placed back in the tube, which is then covered.

You will have a specially trained dietician looking after you, who will decide how much liquid food you need to put down the tube, and will show you how to look after the tube properly. He/she will also give you more information about the type of liquid food you are injecting. About two weeks after the procedure, the nurses on the ward will take out the stitches on the skin surface, which are holding the tube in place. The tube should then stay in all by itself.

Are there are risks or complications?

Percutaneous gastrostomy is a very safe procedure. However, there are some risks and complications that can arise, as with any medical treatment.

The biggest problem could be not being able to get the tube into your stomach. This can sometimes happen if you have not been able to eat for a long time and your stomach has shrunk quite a lot. It may not be possible to find it with a small needle. If this happens you may need an operation to place the tube. Sometimes there is a leak around the tube. This is less likely to happen if the stomach has been attached to the muscles beneath the skin, but it can still sometimes occur. This can lead to the skin around the tube becoming very red and sore. An attempt will be made to treat this but it may become necessary to remove the tube for healing to occur. You need to keep the area around the tube very clean and very dry.

Very rarely, a blood vessel can be punctured accidentally when passing the needle into the stomach. This can result in bleeding. This may stop by itself, or if not, you may need a blood transfusion. Occasionally it may require another procedure to block the bleeding artery. This would be done by a radiologist using a fine plastic tube put into the artery. It may need an operation to stop the bleeding. However, this is a very rare complication.

There is a small risk of perforating other parts of your bowel that might require an operation to repair.

Finally...

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.
Contact us
If you have any queries or concerns contact 01392 402336.

How to get to the Royal Devon & Exeter Hospital at Wonford

Park & Ride
Our Dartline PR3 Park & Ride bus is quick and not expensive.

It runs from Wonford Hospital to Digby. Digby is near Tesco, the railway station and junction 30 of the M5. There are signs along some of the main roads into Exeter pointing to the RD&E park and ride.

The park and ride service runs from Monday - Friday. **There is no service at the weekend**

By bus
Stagecoach buses H Service run to Wonford Hospital from the high street in the city centre Monday to Saturday. Limited Sunday service. They also run to Wonford Hospital from the Broadfields area.

Stagecoach buses from Exmouth (57), Dawlish (2), Torbay (X46), Teignmouth (2) and Plymouth (X38) stop next to the hospital on Barrack Road.

First Southern National bus X53 from Weymouth, Seaton, Beer and Sidford stops next to the hospital on Barrack Road. Turner's Tours bus 369 from Chulmleigh, Lapford, Morchard Bishop and Crediton stops next to the hospital on Barrack Road and outside the main front entrance of the hospital.

By car
Follow signposts to the hospital from most of the main routes into Exeter. Follow signposts in the hospital grounds to our car parks.

Car parking is by pay & display, so please bring change.

The number of spaces is limited, so please leave plenty of time to find a space.

Using Sat Nav to find us?
Tap in postcode: EX2 5DW for RD&E Wonford

For more information on how to get to the hospital, please use the following website: www.rdehospital.nhs.uk/patients/where

For more information on the Medical Imaging Department, please visit our website: www.rdehospital.nhs.uk/patients/services/medical-imaging

This leaflet was modified with acknowledgment of, and permission from, the Royal College of Radiologists

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