Wirral University Teaching Hospital
NHS Foundation Trust

PEG

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You can get more information locally from the Endoscopy Unit (9am to 5pm) on 0151 604 7095

You can also contact:

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You can get more information from www.aboutmyhealth.org

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What is a PEG?

A percutaneous endoscopic gastrostomy (PEG) is a procedure to insert a feeding tube through the skin on your tummy and into your stomach. To do this, a flexible endoscope (camera) will be used by the endoscopist (the person performing the procedure) to guide them while they insert the feeding tube.

Shared decision making and informed consent

Your healthcare team have suggested a PEG. However, it is your decision to go ahead with the procedure or not. This document will give you information about the benefits and risks to help you make an informed decision.

Shared decision making happens when you decide on your treatment together with your healthcare team. Giving your 'informed consent' means choosing to go ahead with the procedure having understood the benefits, risks, alternatives and what will happen if you decide not to have it.

If you have any questions that this document does not answer, it is important to ask your healthcare team. Once they have answered all your questions and you feel ready to go ahead with the procedure, they will ask you to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point after signing the form.

What are the benefits?

The healthcare team is worried that you are not able to eat or drink enough safely. This is usually because of a problem or health condition that makes it difficult for you to swallow. Some common examples are:

- A stroke (loss of brain function resulting from an interruption of the blood supply to your brain).
- A growth in the wall of your throat.
- You had a 2 to 4 week trial of nasogastric feeding (a tube placed down your nose), and your swallowing did not get better.
- Neurological conditions like motor neurone disease or multiple sclerosis (MS).
- If you are having radiotherapy and/or surgery on your head and neck.
- If you are likely to need a feeding tube for longer than 4 weeks.

These conditions increase the risk of food going down the wrong way into your lungs. This can lead to serious chest infections.

A PEG should allow the healthcare team to give you the nutrients and fluid you need to stay alive. They can also give you medication through the tube.

A PEG can also be used if you are able to eat and drink normally but struggle to eat enough to stay healthy.

Are there any alternatives?

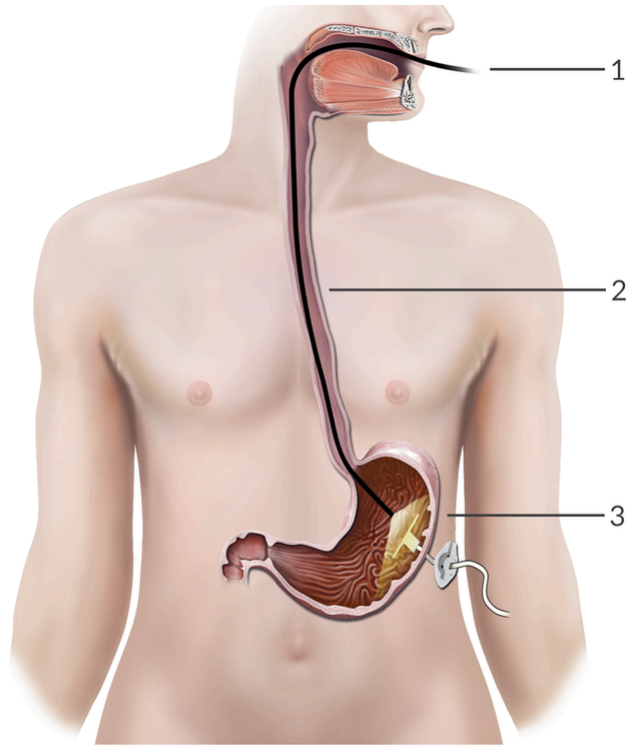
It is possible for the healthcare team to give you nutrients and fluid through a tube (nasogastric or NG tube) that is placed into your stomach through your nostrils. However, an NG tube is only suitable if you need help taking in nutrients and fluid for a short time (3 to 4 weeks). Your healthcare team would need to perform regular checks to make sure the tube is in the right position. If you need help for longer or if there is a problem with your throat, your healthcare team will usually suggest a PEG.

The feeding tube can be inserted directly into your stomach by a procedure (surgical gastrostomy), but this involves an anaesthetic and has a higher risk of complications so is not commonly performed.

The tube may be guided into your stomach using x-rays. This procedure has similar benefits and risks to a PEG.

It is also possible for the healthcare team to give you nutrients and fluid directly into your bloodstream (parenteral nutrition – PN). However, PN has more possible complications and is usually only suggested if you cannot take food through your digestive system.

A feeding tube in the stomach



 Illustrator: www.medical-artist.com

1. Endoscope
2. Oesophagus
3. Stomach

What will happen if I decide not to have the procedure or the procedure is delayed?

Your healthcare team may be able to suggest another way of feeding you. However, if a PEG is the only dependable way to give you fluid and nutrients, you may lose weight and become seriously ill.

If you decide not to have a PEG, you should discuss this carefully with your healthcare team.

Before the procedure

Medication

If you take warfarin, clopidogrel or other blood-thinning medication or are diabetic, let your healthcare team know at least 10 days before the procedure. If you are diabetic, you will need special advice depending on the treatment you receive for your diabetes.

Preparation

Do not eat anything in the 6 hours before your appointment. Do not drink anything except for small sips of water. This is to make sure your stomach is empty so the endoscopist can have a clear view. It will also make the procedure more comfortable. You can continue to drink small sips of water up to 2 hours before the procedure.

When you arrive

The healthcare team will ask you to confirm your name and the procedure you are having.

What does the procedure involve?

A PEG usually takes 15 to 20 minutes. It involves placing an endoscope into the back of your throat and down into your stomach. The endoscopist will use the endoscope to guide them while they insert the feeding tube.

A cannula (thin, hollow tube) may be put in a vein in your arm or the back of your hand. This allows the endoscopist to give you medication during the procedure.

Some medications that may be used are:

- A throat spray with some local anaesthetic. This can taste unpleasant but helps to keep you comfortable during the procedure.
- A sedative that will help you feel comfortable.
- Pain relief that will reduce the chance of you experiencing severe pain or discomfort during the procedure.
- Medication to relax your muscles (Buscopan). This will make the procedure more comfortable. Buscopan can affect the pressure in your eyes so let the healthcare team know if you have glaucoma.
- Antibiotics to stop infection. These can be given through the cannula or PEG tube after it has been inserted.

You will be asked to remove any false teeth or plates. The endoscopist will ask you to lie on your left side and a plastic mouthpiece will be placed in your mouth. This will keep your mouth open and stop you biting the endoscope.

The healthcare team will monitor your oxygen levels and heart rate using a finger or ear clip. If you need oxygen, they will give it to you through a small tube under your nostrils.

The endoscopist will place the endoscope into the back of your throat. They may ask you to swallow when the endoscope is in your throat. This will help the endoscope to pass easily into your oesophagus (gullet) and down into your stomach. The endoscope will be used to blow air into your stomach to improve the view and expand your stomach so that it presses against the wall of your tummy.

The endoscopist will inject local anaesthetic into your upper tummy where they plan to insert the tube. This can sting for a moment but will make the area numb, allowing the endoscopist to insert the tube into your stomach without causing too much discomfort.

They will press on your stomach to help them make sure that they insert the tube in the right position. The endoscopist may need to use a special device to secure a section of your stomach to the wall of your tummy.

The endoscopist will make a small cut on the wall of your tummy so they can insert a hollow needle into your stomach. The endoscopist will pass a fine wire through the needle and into your stomach. They will use the endoscope to get hold of the end of the wire and will remove the endoscope, bringing the wire out of your mouth.

The endoscopist will attach the feeding tube to the wire and use the wire to pull the tube down into your stomach. They will use the needle as a guide while they bring the wire and tube out of your stomach and through the hole in the wall of your tummy (exit site). The endoscopist will remove the needle to leave one end of the feeding tube in your stomach with about 8 to 10 centimetres of tube outside of your tummy.

The feeding tube is fitted with a device called a bolster. The bolster sits inside your stomach and helps stop the tube from falling out. Over the next few months your stomach and the wall of your tummy will join together.

Photographs and videos may be taken during the procedure. These may help with your treatment and are stored securely by your healthcare team and discussed with other healthcare professionals.

You may feel some discomfort during the procedure and your stomach may feel bloated because of the air blown into it.

If at any time you want the procedure to stop, raise your hand to let the endoscopist know. They will end the procedure as soon as it is safe to do so.

Clips, staples, implants, metalwork and any other materials used for the procedure do not react with your body and some can stay in place for the rest of your life. These may also be used to plan procedures you may need in the future.

Can I be sent to sleep for the procedure?

In rare cases the procedure can be performed with you asleep under a general anaesthetic or deep sedation. However, most centres do not offer this. If this is an option for you, the healthcare team will talk to you about this before your procedure date.

General anaesthetic is given through a cannula, or as a mixture of anaesthetic gas that you breathe through a tube that passes into your airways. This means you will be unaware of the procedure.

A general anaesthetic has a higher risk of complications than other forms of medication. The healthcare team can give you more information about these. You may also need to wait longer for your procedure.

Most patients manage well without a general anaesthetic.

What complications can happen?

The healthcare team are trained to reduce the risk of complications.

Any risk rates given are taken from studies of people who have had this procedure. Your healthcare team may be able to tell you if the risk of a complication is higher or lower for you.

Possible complications of this procedure are shown below from most to least likely to happen. Some can be serious. Rarely, you may need to come back into hospital for more treatment, including surgery.

You should ask your healthcare team if there is anything you do not understand.

Early complications

- Sore throat. This gets better quickly.
- Damage to teeth or bridgework. A member of your healthcare team will place a plastic mouthpiece in your mouth to help protect your teeth. Let your healthcare team know if you have any loose teeth.
- Incomplete procedure caused by a technical difficulty, food or blockage in your upper digestive system, complications during the procedure or discomfort.
- Bleeding during or after the procedure. This can usually be stopped by using the tube to put pressure on your wound.
- Breathing difficulties or heart irregularities, as a result of reacting to the sedative or inhaling secretions such as saliva. To help prevent this, your oxygen levels will be monitored, and a suction device will be used to clear any secretions from your mouth.
- Blurred vision, if you are given a Buscopan injection. This usually gets better after about an hour. Sometimes the injection can affect the pressure inside your eye. This is more likely if you have a rare type of glaucoma. If your vision becomes blurred and your eye becomes red and painful, let the endoscopist know straight away.
- Allergic reaction to the equipment, medications, or materials. The healthcare team are trained to detect and treat any reactions that might happen. Let the endoscopist know if you have any allergies or if you have reacted to any medication or tests or dressings in the past.
- Infection. Any infection is usually mild and affects only the area around the exit site (risk: 1 in 10). However, the tissues of your tummy can get infected (risk: 1 in 1,000). It is possible to get an infection from the equipment used, or if bacteria enter your blood. The equipment is disinfected so the risk is low but let the endoscopist know if you have a heart abnormality or a weak immune system. Let your healthcare team know if you get a high temperature or feel unwell.
- Making a hole (perforation) in your stomach or intestine (risk: 3 in 100). You will need more treatment which may include surgery.
- Inflammation of the lining of your tummy (peritonitis) if some air or bowel contents leak into the space around your organs. Peritonitis can usually be treated with antibiotics and settles within 2 to 3 days. It may delay the time until the healthcare team can feed you using the tube.
- PEG tube falling out before your stomach properly joins to the wall of your tummy. This is serious. Do not try to put the tube back. Call an ambulance or go immediately to your nearest emergency department.
- Chest infection. The risk is higher if you already have problems swallowing and you need a sedative or local anaesthetic spray. A chest infection can also be caused by reflux, where some of the food from the tube travels up into your oesophagus.
- Death (risk: 5 in 100). This means 95 out of 100 people will not die. The risk is less the fitter you are. The risk will increase if any other complications, such as a chest infection, happen following the PEG.
- Damage to your liver or intestine, if your liver or intestine is stuck or close to your stomach because of previous surgery (risk: 1 in 1,000). This can be life-threatening.

Late complications

- Severe pain after the procedure. If this happens tell your healthcare team straight away.
- Tissue developing around the tube. A small amount is normal, but a lot of tissue can cause pain and make it difficult to look after the PEG tube. Your healthcare team will talk to you about how to treat the problem.
- Blocked PEG tube. This can happen at any time but usually happens after several months as the tube can deteriorate over time. You may need another PEG to replace the tube.
- The bolster getting stuck to the lining of your stomach. It is important to follow the advice from the healthcare team to help stop this from happening.
- Leaking from the PEG exit site, if over time the hole in your tummy gets larger than the tube. Sometimes the healthcare team will need to remove the tube for a few days so the hole can get smaller.

What happens after the procedure?

In hospital

After the procedure you will be moved to the recovery area where you can rest, and then to the ward.

If you were not given a sedative, you should be able to go home after a member of the healthcare team has spoken to you and decided you are ready.

If you were given a sedative, you usually recover in about an hour. However, this depends on how much sedative you were given.

You may feel a bit bloated for a few hours, but this will pass. You will usually have a tight feeling in the area where the feeding tube is. This settles within 1 to 2 days.

The healthcare team will tell you the outcome of the procedure and talk to you about any treatment or follow-up care you may need.

Before you leave the endoscopy department, you will be given a discharge advice sheet and a copy of your endoscopy report. The advice sheet will explain who to contact if you have any problems after your procedure. A copy of the report will be sent to your GP and healthcare team.

A member of your healthcare team will usually train you (or your carer) on how to feed yourself, using the tube. It is important to follow the advice you are given to prevent infection and stop the tube becoming blocked.

Depending on how much help you need to use the feeding tube you may be offered extra nursing care. The healthcare team will discuss this with you and your carers.

If you had sedation:

- If you go home the next day, a responsible adult should take you home in a car or taxi. They should stay with you for at least 24 hours unless your healthcare team tells you otherwise.
- You should be near a telephone in case of an emergency.
- Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination.
- Do not sign legal documents or drink alcohol for at least 24 hours.

Once at home, if you experience symptoms that are causing concern, contact the endoscopy unit, your GP or call 111. If you have serious symptoms, like severe pain or heavy bleeding, go to your nearest emergency department straight away.

Returning to normal activities

If you have a lot of pain when feeding, or if you have bleeding or leaking from the exit site within 3 days of having the feeding tube, it is important that you stop feeding and contact the healthcare team.

Depending on the problem that made it difficult for you to swallow, you should be able to return to your normal activities after 1 to 2 weeks. If you swim, follow healthcare advice about using a waterproof dressing.

If you have any problems with the PEG tube or exit site, contact the healthcare team. In an emergency, call an ambulance or go immediately to your nearest emergency department.

Do not drive a car or ride a bike until you can control your vehicle, including in an emergency, and always check your insurance policy and with the healthcare team.

The future

The healthcare team will monitor you closely. They will advise you on how long you need to have the tube. This will depend on the problem that made it difficult for you to swallow. If you no longer need the tube, your healthcare team will discuss this with you.

Once the PEG tube is removed, the hole in your stomach may leak for a few days. This usually heals by itself. If the hole does not heal properly, fluid can leak onto your skin. This is more likely if the PEG tube has been in place for longer than 8 months. If this happens, you may need a procedure to fix it.

Summary

A PEG is usually a safe and effective way of allowing you to get the nutrients and fluid you need to stay alive. However, complications can happen. Being aware of them will help you

make an informed decision about surgery. This will also help you and the healthcare team to notice and treat any problems after your procedure as quickly as possible.

Keep this information document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatment options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

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