

## Endoscopic Ultrasound

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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](http://www.aboutmyhealth.org)

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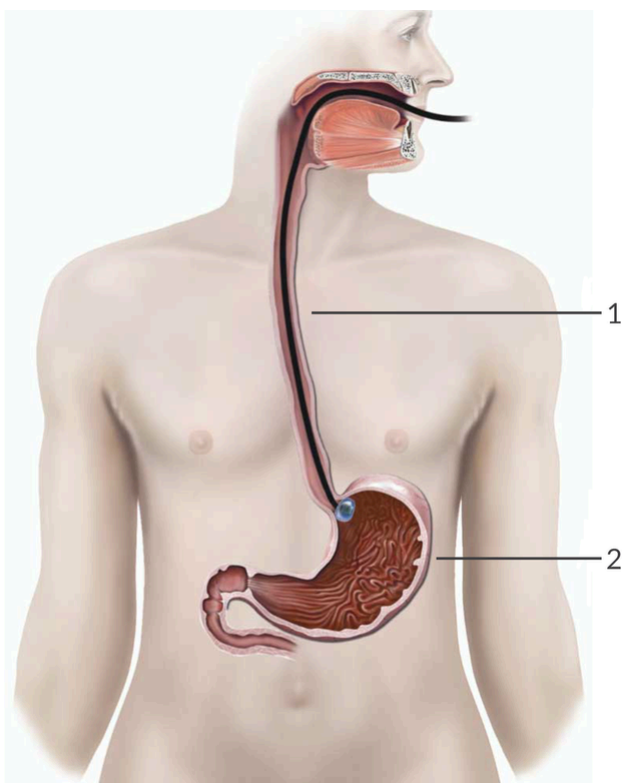
## What is an endoscopic ultrasound?

An endoscopic ultrasound (EUS) is a procedure that uses a flexible endoscope (camera) and an ultrasound (scan that uses high frequency sound waves to create pictures of the inside of your body). It can look at parts of your upper gastrointestinal (GI) tract including your:

- Oesophagus (gullet)
- Stomach and duodenum (beginning of your small bowel)
- Pancreas gland and/or bile ducts
- Lymph nodes (lymph glands)

The endoscope has a small ultrasound scanner attached to it. This allows the endoscopist (the person performing the procedure) to look at and scan areas of your body. They can also take tissue samples called biopsies, fine needle aspiration (FNA) or fluid to analyse.

### An endoscopic ultrasound



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1. Oesophagus
2. Stomach

## Shared decision making and informed consent

Your healthcare team have suggested an endoscopic ultrasound. 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?

An endoscopic ultrasound gives your healthcare team a detailed look at the upper parts of your intestines, pancreas and bile ducts. This will help them find out why you are experiencing certain symptoms and take samples if needed.

The results will help them decide what treatment you may need.

### Are there any alternatives?

A CT scan can give some information about a problem. However, a scan is not as detailed as an endoscopic ultrasound, and it is not possible to perform a biopsy. This means you may need an endoscopic ultrasound anyway.

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

Your healthcare team may not be able to confirm what is causing your symptoms, and they may get worse. If they do, speak to your healthcare team.

If you decide not to have an endoscopic ultrasound, 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, tell your healthcare team 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 12 hours before your appointment, and only drink 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?

An endoscopic ultrasound usually takes 15 to 20 minutes.

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 tell the healthcare team if you have glaucoma.

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 mask or 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 it pass easily into your oesophagus and down into your stomach. From here the endoscope will pass into your duodenum.

Using the camera on the end of the endoscope, your endoscopist will look at the areas in your upper GI tract to take pictures and look for problems. They may use the endoscope to perform biopsies or an FNA.

You may feel some discomfort during the procedure and your stomach may feel bloated because air is blown into it to help the endoscopist have a clear view.

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.

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.

## 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 the 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 and may even cause death. 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.

## Complications of an endoscopic ultrasound

- 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. Tell your healthcare team 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.
- Missed diagnosis. There is a small chance that significant findings or other problems may be missed during the procedure. The risk is higher if your stomach is not completely empty, or it cannot keep hold of the air that was blown into it.
- 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, tell the endoscopist straight away.
- Allergic reaction to the equipment, materials or medication. The healthcare team are trained to detect and treat any reactions that may happen. Tell the endoscopist if you have any known allergies or if you have reacted to any medication or tests in the past.
- Heavy bleeding from the site of an FNA or core biopsy, or from minor damage caused by the endoscope (risk: up to 4 in 100). This usually stops on its own.
- Infection, if you have an FNA or core biopsy (risk: fewer than 2 in 100). It is also possible to get an infection from the equipment used, or if bacteria enter your blood. The equipment is disinfected before the procedure, so the risk is low. Tell your healthcare team if you get a high temperature or feel unwell.
- Inflammation of your pancreas (pancreatitis), which causes pain in your belly (abdomen) and can make you feel sick (risk: 2 in 100). This is more common if your endoscopist performs an FNA or biopsy. Most cases of pancreatitis are mild and settle within a few days.
- Making a hole in your oesophagus, stomach or duodenum (risk: 4 in 1,000). The risk is higher if there is an abnormal narrowing (stricture) and higher still if this is stretched. You will need to be admitted to hospital for more treatment which may include surgery.
- Rarely, a heart attack (where part of the heart muscle dies) or stroke (loss of brain function resulting from an interruption of the blood supply to your brain) can happen if you have serious medical problems.
- Death. This is rare (risk: 4 in 100,000). This means 99,996 people will not die.

## What happens after the procedure?

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

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

Once you can swallow properly you will be given a drink. You may feel a bit uncomfortable for a few hours, but this will pass.

The healthcare team will tell you the results of the procedure and talk to you about any treatment or follow-up care you may need. Results from the FNA or biopsies will not be ready until a later date. The healthcare team will write to you, call you, or ask you to come back to the clinic to give you the results.

Before you leave, 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.

## Returning to normal activities

If you had sedation:

- a responsible adult should take you home in a car or taxi and stay with you for at least 24 hours
- you should be near a telephone in case of an emergency
- you must not drive, operate machinery or do any potentially dangerous activities (including cooking) for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination, and
- you must not sign legal documents or drink alcohol for at least 24 hours.

You should be able to return to work the next day unless you are told otherwise.

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.

## Summary

An endoscopic ultrasound is usually a safe and effective way of finding out more about a problem and take samples for testing if needed.

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.

## Reviewer

National Endoscopy Programme, Wales

## Illustrator

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