Sherwood Forest Hospitals
NHS Foundation Trust

E10 Endoscopic Ultrasound (EUS)

Expires end of May 2025

You can get information locally from the Trust's website at www.sfh-tr.nhs.uk

If you need this information in a different language or format, please contact the Trust's Patient Experience Team (PETs) on:

- King's Mill Hospital on 01623 672 222
- Newark Hospital on 01636 685 692
- Email on sfh-tr.pet@nhs.net

You can also contact:

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You can get more information from www.aboutmyhealth.org
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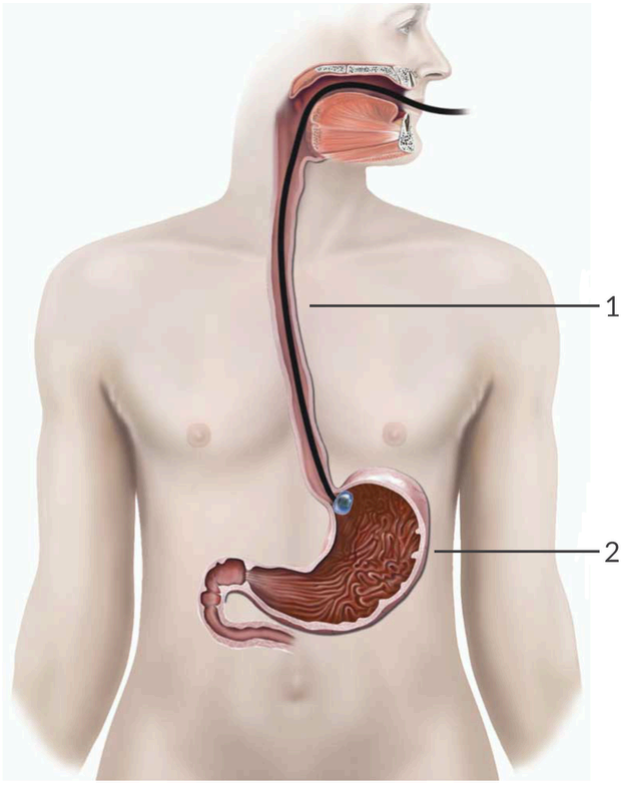
What is an endoscopic ultrasound?

An endoscopic ultrasound is a procedure to look at the wall of your oesophagus (gullet), stomach and duodenum using a flexible telescope.

Sometimes an endoscopic ultrasound is performed to check problems in your pancreas or to see if you have gallstones that have moved into your bile ducts.

An endoscopic ultrasound



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1. Oesophagus
2. Stomach

The telescope has an ultrasound scanner attached to it so the endoscopist (the person doing the endoscopic ultrasound) can scan structures beneath the lining of your intestines such as your bile ducts and pancreas.

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 all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked 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. You will be asked to confirm your consent on the day of the procedure.

What are the benefits?

You may already have had a test, such as an endoscopy or CT scan, that has shown that you have an abnormality. An endoscopic ultrasound can be used to get close-up scans to help your doctor to decide on the best treatment for you.

The endoscopist may need to perform a fine needle aspiration (FNA) to remove cells or a core biopsy to remove small pieces of tissue to help make the diagnosis.

Are there any alternatives?

A CT scan can give some information about an abnormality. However, a scan is not as accurate and it is not possible to perform a biopsy so you may still need an endoscopic ultrasound. An endoscopic ultrasound is the best way of finding out more about a problem beneath the lining of your upper digestive system.

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

Your doctor may not be able to recommend the best way to treat your problem. If you decide not to have an endoscopic ultrasound, you should discuss this carefully with your doctor.

Before the procedure

If you take warfarin, clopidogrel or other blood-thinning medication, let the endoscopist know at least 7 days before the procedure.

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Do not eat anything in the 6 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 of your stomach. It will also make the procedure more comfortable. You can continue to drink small sips of water up to 2 hours before the procedure. If you have diabetes, let the healthcare team know as soon as possible. You will need special advice depending on the treatment you receive for your diabetes.

The healthcare team will carry out a number of checks to make sure you have the procedure you came in for. You can help by confirming to the endoscopist and the healthcare team your name and the procedure you are having.

What does the procedure involve?

An endoscopic ultrasound usually takes 15 to 20 minutes.

The endoscopist may offer you a sedative or painkiller to help you to relax. They will give it to you through a small needle in your arm or the back of your hand. You will be able to ask and answer questions but you will feel relaxed. You may not be aware of or remember the procedure. The healthcare team can give you more information about this.

Once you have removed any false teeth or plates, they may spray your throat with some local anaesthetic and ask you to swallow it. This can taste unpleasant. The endoscopist will ask you to lie on your left side and will place a plastic mouthpiece in your mouth.

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

If you are awake during the procedure and at any time you want it to stop, let the endoscopist know. The endoscopist will end the procedure as soon as it is safe to do so.

The endoscopist will place a flexible telescope (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 and down into your stomach. From here the endoscope will pass into your duodenum.

The endoscopist will be able to look at the lining of these organs and, using the scanner, will be able to take ultrasound images of deeper tissue and other structures beneath the lining such as your bile ducts and pancreas. They may use the scanner to perform a fine needle aspiration or core biopsy.

The procedure does not cause pain but your stomach may feel bloated because air is blown into your stomach to improve the view.

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.

Some complications can be serious and may even cause death.

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

The possible complications of an endoscopic ultrasound are listed below.

- Sore throat. This gets better quickly.

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- Allergic reaction to the equipment, materials or medication. 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, tests or dressings in the past.
- 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.
- 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.
- Damage to teeth or bridgework. The endoscopist will place a plastic mouthpiece in your mouth to help protect your teeth. Let the endoscopist know if you have any loose teeth.
- Making a hole in your oesophagus, stomach or duodenum (risk: 1 in 250). The risk is higher if there is an abnormal narrowing (stricture) which is stretched (dilated). You will need to be admitted to hospital for further treatment which may include surgery.
- 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: less 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 so the risk is low but let the endoscopist know if you have a heart abnormality or a weak immune system. You may need treatment with antibiotics. Let your doctor know if you get a high temperature or feel unwell.
- Incomplete procedure caused by a technical difficulty, food or blockage in your upper digestive system, complications during the procedure, or discomfort. Your doctor may recommend another endoscopic ultrasound or a CT scan.
- Inflammation of your pancreas (pancreatitis), which causes abdominal pain and can make you feel sick (risk: 2 in 100). This is more common if your surgeon performs a fine needle aspiration or core biopsy. Most cases of pancreatitis are mild and settle within a few days.
- Death. This is rare (risk: 1 in 25,000).

What happens after the procedure?

If you were not given a sedative, you should be able to go home and return to normal activities straight away. Do not eat or drink for at least the first hour after the procedure.

If you were given a sedative, you will be transferred to the recovery area where you can rest. You will usually recover in about an hour but 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 bloated for a few hours but this will pass.

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.
- 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.

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

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 fine needle aspirations or core biopsies will not be available for a few days so the healthcare team may arrange for you to come back to the clinic for these results.

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Once at home, if you get chest or back pain, difficulty breathing, pain in your abdomen or a high temperature, or if you vomit, contact the endoscopy unit or your GP. In an emergency, call an ambulance or go immediately to your nearest emergency department.

Lifestyle changes

If you smoke, stopping smoking will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

Summary

An endoscopic ultrasound is usually a safe and effective way of finding out more about a problem in the wall of your upper digestive system and in structures beneath the wall. However, complications can happen. You need to know about them to help you make an informed decision about the procedure. Knowing about them will also help to detect and treat any problems early.

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 treatments options.

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

Reviewer

Simon Parsons (DM, FRCS)

Illustrator

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