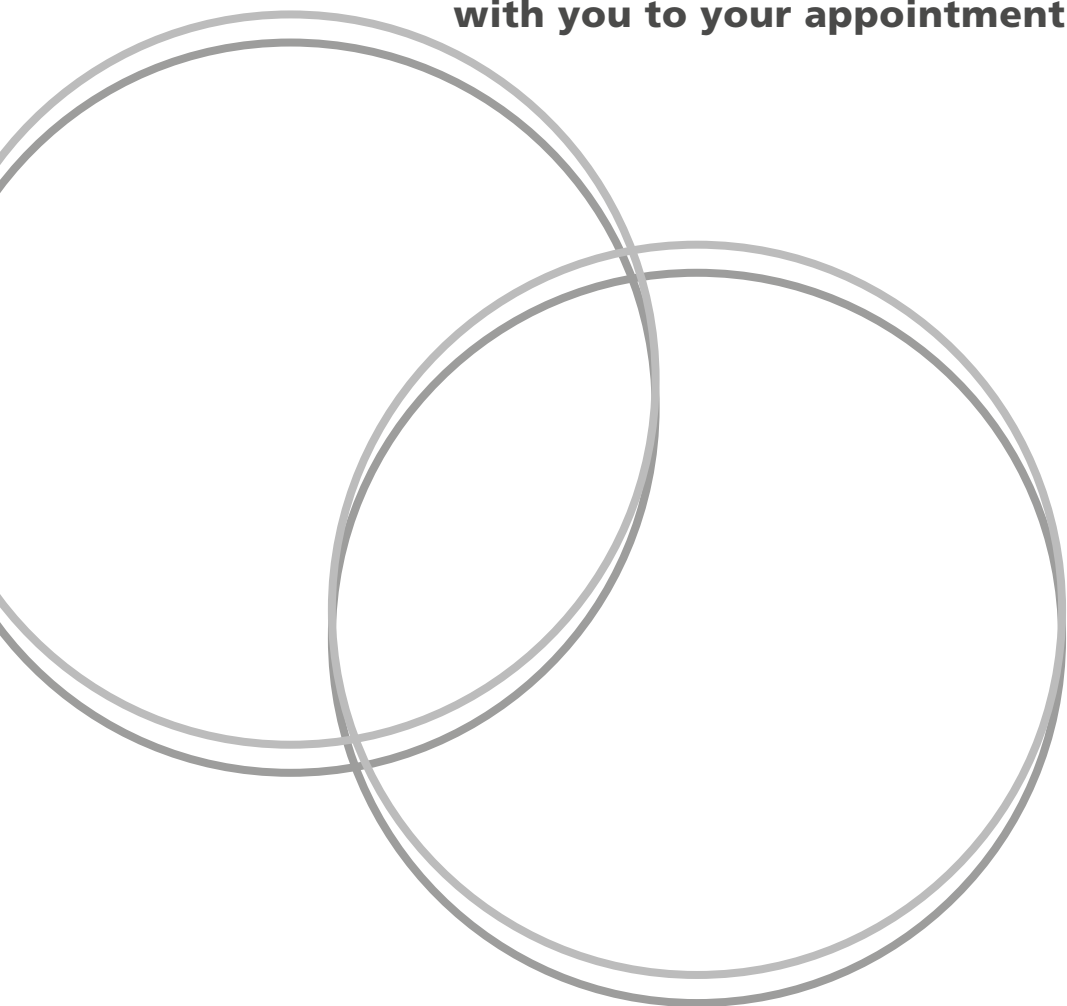


Endoscopic Ultrasound (EUS) or Endosonography

*This booklet contains details of your appointment,
information about the examination and the consent form*

**Please bring this booklet
with you to your appointment**



Your appointment

An appointment for your endoscopic ultrasound has been arranged at:

John Radcliffe Hospital, Endoscopy Unit

Telephone **01865 223 010**

(Monday to Friday, 8.00am to 4.00pm)

If we are unable to answer the phone, please leave a message and we will call you back within 24 hours.

Email: **endoscopy@ouh.nhs.uk**

Please contact the Endoscopy Unit if this appointment time is not convenient for you or if you are unable to keep your appointment. This will enable staff to arrange another date and time for you and to give your appointment to someone else.

If you need travel information please refer to the Trust website at **www.ouh.nhs.uk** or telephone the numbers above and we will send you an information sheet.

Introduction

You have been advised by your hospital doctor to have an endoscopic ultrasound examination. **We will need to have your formal consent before we can carry out this examination.**

This booklet explains how the examination is carried out and what the risks are. **This will help you to make an informed decision when agreeing to the examination and sedation. The consent form is at the front of the booklet.**

If there is anything you do not understand, or anything you wish to discuss further, but still wish to come for the appointment, do not sign the consent form. Instead, bring it with you and you can sign it after you have spoken to the endoscopist.

The consent form is a legal document – please read it carefully.

Once you have read and understood all the information, including the risk of complications, and you agree to undergo the examination, please sign and date the consent form. A copy of your consent form will be provided should you require it, so please do ask for a copy. **Please remember to bring the consent form with you to your appointment.**

What is an endoscopic ultrasound?

The examination you will be having is called an endoscopic ultrasound (EUS). This is a specialised technique used to examine the lining and walls of the upper gastrointestinal tract. It also gives excellent images of the organs that lie next to the gastrointestinal tract, such as the bile ducts, lymph nodes and pancreas.

A flexible tube called an endoscope, which has an ultrasound probe at the tip, is passed through your mouth and down your oesophagus (gullet) into your stomach and duodenum. The endoscope has a small light which is shone onto the lining of your gut. It also has a very small camera which sends a live image to a screen, where it is viewed by the endoscopist.

We will give you sedation before having the EUS. This can help you to relax and makes the procedure more comfortable.

Other procedures that may be done during the endoscopic ultrasound will be discussed with you by the endoscopist before the procedure is carried out. These include:

- biopsy (collection of a sample of tissue) or aspiration of fluids
- insertion of a stent (a plastic or metal drainage tube) to drain a fluid collection
- injection of medication for a nerve block in selected cases of pancreatic cancer or chronic pancreatitis.

The samples will be looked at under a microscope or analysed in our laboratories.

The tissue sample, images and video and associated clinical information will be kept and may be used for teaching purposes and for research aimed at improving diagnosis and treatment of gastrointestinal disorders. This may benefit other patients in the future. If you do not wish us to keep the tissue samples for this purpose or have any questions or concerns, please ask the endoscopist before signing the consent form. Images from the EUS will be kept in your health record.

Why do I need an endoscopic ultrasound?

You may have been advised to have an endoscopic ultrasound for the following reasons:

- to try and find the cause of your symptoms
- to evaluate a lesion that was seen during other examinations, to help us decide on the most appropriate treatment
- if you have dilated bile ducts
- if you have abnormalities of internal organs
- if you have pancreatic fluid collection that needs drainage
- if you have bile duct blockage that needs drainage via EUS

What are the alternatives?

Computed tomography (CT) and magnetic resonance imaging (MRI) scans can also be used to examine your internal organs and gastrointestinal wall. The disadvantages of these scans are that tissue or fluid samples cannot be collected and the pictures may not be very clear.

Sedation

The sedative is injected into a vein in your hand or arm and will make you lightly drowsy and relaxed but will not put you to sleep. You are likely to be aware of what is going on around you and will be able to follow simple instructions during the examination. We will monitor your breathing and heart rate during the examination.

After sedation you will not be allowed to drive home or travel alone on public transport. You must arrange for a family member or friend to collect you. The nurse will need to be given their telephone number so that we can contact them when you are ready to go home.

As the sedation can make you drowsy and unsteady on your feet, you should have someone responsible to stay with you overnight after the procedure.

However, if this is not possible, you may still be able to have sedation, depending on your general health. If you cannot have sedation for any reasons, please discuss this with your endoscopist in advance.

What are the risks of having an EUS?

Endoscopic ultrasound is a safe examination for most people and serious or life-threatening problems are extremely rare. However, you need to weigh up the benefits against the risks of having the procedure. These risks can be associated with having the procedure itself, as well as from the sedation.

The main risks are:

- A tear or perforation in the lining of the gullet, stomach, gut or bile ducts. This happens to approximately 1 in 1000 people. An operation may be required to repair a tear if it cannot be closed during the endoscopy.
- A risk of bleeding, mainly where we take a sample (biopsy) or place a drainage. This happens to approximately 1 in 100 people.
- A risk of infection when a biopsy is taken or a drain is inserted. This happens to approximately 1 in 20 people and may be treated with antibiotics.
- Pancreatitis (inflammation of the pancreas), which can sometimes develop after an EUS. This can cause abdominal pain that often extends into the back. Generally it will settle in a day or so but it can be more severe which may mean you need to stay in hospital for several days, sometimes longer. This happens to approximately 1 in 50 people.
- Short term problems with breathing, heart rate and blood pressure (related to sedation) 1 in 100. We will monitor you carefully so that if any problems do occur they can be treated quickly. Older people and those with significant health problems (for example, people with serious breathing difficulties), may be at higher risk.
- A sore throat after the examination is common and should get better after a few days.
- A risk of damage to crowned teeth or dental bridgework 1 in 2000.

- A risk that abnormalities may be missed, although this is unlikely and this happens 1 in 100.
- A reaction to the drugs used during the test. This may mean you need to stay in hospital so that we can treat and monitor you.
- Accidentally breathing in gastric (stomach) contents, which can cause pneumonia. This might require treatment with antibiotics.

For EUS guided drainage to remove fluid collections, there is also a small risk that the stent (drainage tube) cannot be placed or might move internally or fall out – but the risk of any serious consequence to this is rare.

Heart attack or stroke (related to sedation) – though this is very unlikely.

When therapeutic procedures are carried out, the risks are slightly higher and the endoscopist will discuss with you in more detail.

If you have any problems after the endoscopic ultrasound which you feel may be related to the test, please tell your doctor or a member of hospital staff at once. If you have any questions or concerns about these risks, please speak with the hospital staff before having the endoscopic ultrasound.

Preparation

Eating and drinking

You must not eat anything for 6 hours before your endoscopic ultrasound. This is because food can stop the endoscopist getting a clear view of the inside of your stomach. It also increases the risk that you inhale (breathe in) the contents of your stomach into your lungs, which can cause severe pneumonia. You can have a few sips of water up to 2 hours before your test. If you do eat something, your test will be cancelled for your own safety.

What about my medicines?

If you have diabetes controlled by insulin or tablets, please make sure that you tell us so that we can give you an appointment at the beginning of the morning or afternoon. If you have not already been advised about your diabetes medications, please telephone the Endoscopy Unit at least two days before your endoscopy appointment for advise.

If you take blood thinners, anti-coagulants (such as warfarin, rivaroxaban dabigatran, apixaban or edoxaban) or antiplatelets (such as clopidogrel, prasugrel or ticagrelor), please telephone the Endoscopy Unit at least two weeks before your appointment if you have not already been advised about these medicines.

You should continue to take your routine medicines like blood pressure tablets unless advised otherwise.

What happens when I arrive at the endoscopy unit

Soon after you arrive you will be reviewed by a nurse who will ask you a few questions about your medical condition and any past surgery or illness you have had. This is to confirm that you are fit enough to undergo the endoscopic ultrasound examination. The nurse will record your heart rate, blood pressure and oxygen levels. If you are diabetic, your blood glucose level will also be recorded.

The nurse will confirm that you understand the examination and you will be able to ask any further questions or raise any concerns you may have. The nurse will ask you for your signed consent form. If you have not already signed the consent form the endoscopist will be able to answer any questions you still have or talk to you about any concerns.

The nurse will also ask you about your arrangements for getting home after the endoscopic ultrasound. **As you will have a sedative, you must be accompanied home.** (Please see page 5.)

What will happen during the endoscopic ultrasound (EUS)?

You will be escorted in to the examination room where the endoscopist and the nurses will introduce themselves and you will have the opportunity to ask any final questions. The nurse looking after you will then ask you to lie on the trolley on your left hand side and will place a probe on your finger to monitor your oxygen levels. You will be given the sedative injection and will quickly become sleepy.

You will be asked to remove any dentures and a small plastic mouthguard will be placed in your mouth to protect your teeth and the scope.

The endoscope will be passed through your mouth and down your gullet. A small amount of air is blown into your gut to help the endoscopist to see clearly. Depending on your underlying condition, the oesophagus (gullet), stomach, pancreas or bile duct will be scanned. A small plastic suction tube, rather like the one used at the dentist will be used to remove any secretions from your mouth during the procedure.

The EUS procedure takes around 15-45 minutes to complete.

How long will I be in the endoscopy department?

This depends on how quickly you recover from your examination and also how busy the department is. You should expect to be in the department for most of the morning or afternoon. The department also deals with emergencies and these will take priority over outpatient appointments. However, we will try to keep any delays to a minimum.

What will happen after the EUS?

We will ask you to rest for up to an hour after the procedure. Your blood pressure, heart rate and breathing will be monitored. If you are diabetic, your blood glucose will be regularly checked. Once you have recovered from the initial effects of the sedation, you will be offered a drink and biscuit.

Before you leave the department, a nurse or the endoscopist will explain what was seen during the examination and whether you need any further appointments. The sedative can make you drowsy and forgetful for up to 24 hours, even though you may feel alert. It is a good idea to have a member of your family or a friend with you when you are given the results, just in case you don't remember everything we are telling you.

You must be collected and accompanied home, otherwise we may need to cancel the procedure.

If the person collecting you has left the unit while you are having your examination, they will be telephoned by a nurse to ask them to return when you are ready to go home.

If you live alone, we recommend that you try to arrange for someone to stay with you overnight.

For 24 hours after the sedation you must not:

- drive
- operate heavy machinery
- drink alcohol
- sign any legally binding documents.

The effects of the sedation usually wear off after 24 hours.

After you go home

If you have any problems with a persistent sore throat, worsening chest or abdominal pain, vomiting of blood, passing of blood or very dark stools, high temperature or difficulty in breathing, please contact Urgent Endoscopy Advise Help Line:

Tel: **01865 741 166** – ask to bleep **6825**

Research

The Oxford University Hospitals NHS Foundation Trust is one of the UK's Academic Health Science Centres. This means that we carry out ethically approved research, which aims to improve patient care.

Whilst you are in Endoscopy, research nurses may look at your notes to see if you fit the criteria for any of our studies. If you are suitable, you may be asked whether you would like to take part in a study. We will give you detailed information about the study and what it involves. You will be asked to sign a consent form to confirm you are happy to take part.

You do not have to take part in any research and your treatment will not be affected by your decision.

If you would like more information about the research currently being conducted in the Endoscopy department, please telephone the Gastroenterology Research Nurses, who are based in the Translational Gastroenterology Unit at the John Radcliffe Hospital.

Tel: **01865 231 461**

World class research is carried out at Oxford University Hospitals. We are also a Genomics Medicine Centre and you may be eligible to take part in the 100,000 Genomes project. During your visit you may be approached about clinical research studies and the Genomes project. If you would like further information, please ask your healthcare professional when you come for your appointment.

If you are unable to keep your appointment please help us by contacting the Endoscopy Unit as soon as possible. Your appointment slot can then be given to someone else, and you will be offered an alternative date and time.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information



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