

Endoscopic ultrasound (EUS) explained: Performed at the Royal Berkshire Hospital

Information and consent form

Please bring this booklet with you

Introduction

- You have been advised by your GP or hospital doctor to have a procedure known as an endoscopy ultrasound scan (EUS).
- This is an examination of your oesophagus (gullet), stomach and the first part of the small bowel, called the duodenum. It will be performed using a flexible endoscope using a local anaesthetic throat spray and you will be sedated. The procedure will be carried out by an appropriately trained doctor.
- This booklet aims to help you to make an informed decision about the procedure.
- The consent form at the end of this booklet is an important legal document; therefore, please read it carefully. Once you have read and understood all the information, including the possibility of complications, and you agree to undergo the procedure, please sign and date the consent form.
- If, however, there is anything you do not understand or wish to discuss further but still wish to attend, do not sign the form, but bring it with you and you can sign it after you have spoken to a health care professional.
- If you are unable to keep your appointment, please contact us on 0118 322 7459. This will allow the staff to give your appointment to someone else and they will be able to arrange another date and time for you.
- Any patients failing to attend for their appointment will not routinely be offered another appointment.
- Please note that there is no access to the Endoscopy Unit through the main hospital; the entrance is in Craven Road. The Unit is situated at the top of Craven Road, past the main entrance and maternity block.
- There is limited free drop off / collection parking and two disabled spaces outside the Endoscopy Unit. Public parking can be found in the main multi-storey car park on levels 0, 1, 2 and 3. Payment is 'on exit' with pay point machines on level 0 and 2.
- Please arrive at the time stated on your appointment letter so you can be assessed by the nurse.
- Please note your appointment time is your arrival time on the Unit, not the time of your test. Your test will happen sometime later and although there may be other patients in

the unit who will arrive after you, but are taken in for their test before you, this is for medical reasons or because they are seeing a different endoscopist.

For our information: collection details

Please write your relative's or friend's name and telephone number below:

Name: _____

Telephone number: _____

Why do I need to have an EUS?

You have been advised to undergo this procedure to obtain more information about your upper digestive tract and the structures adjacent to it. The doctors or specialist nurse looking after you will be happy to explain your individual need for this procedure, so please ask. The procedure may be similar to previous endoscopies you may have had.

What is an EUS?

An EUS is an endoscopic procedure that uses ultrasound (sound waves at a higher frequency than can be heard by the human ear) to visualise the gut wall and the structures surrounding it. This gives the team information about the relationship of these structures (such as the blood vessels) to each other.

Within the endoscope is a channel which enables light to be directed onto the linings of the oesophagus, stomach and duodenum, and another which displays the images on a television screen. Also on the end of the 'scope' is an ultrasonic transducer that helps to produce the ultrasonic pictures.

Photographs and a video recording may be kept for your records and for documentation purposes.

If an abnormal area is identified within the internal organs, a very fine needle can be passed through the wall of the stomach or duodenum into the surrounding structure to take a sample. This is called an FNA (fine needle aspiration). If you need an FNA you may need to stay in hospital overnight for observation. Whether or not you may return home will be decided following the procedure so it is advisable to bring an overnight bag with you just in case.

Preparation for the procedure

Eating and drinking

- It is necessary to have clear views and for this the stomach must be empty. Therefore, **do not have anything to eat for at least 6 hours before the procedure.**
- If your appointment is in the morning have nothing to eat after midnight. If your appointment is in the afternoon you may have a light breakfast no later than 8 am
- Small amounts of water are safe up to two hours before the test.

What about my medication?

Your routine medication should be taken.

Diabetics

If you have diabetes, please follow the specific advice at the end of the booklet.

Anticoagulants and Antiplatelet (drugs that affect the blood)

Please telephone the Endoscopy Unit on 0118 322 7458/5249 if you are taking anticoagulants such as Warfarin, Clopidogrel, Dabigatran, Rivaroxaban, Apixaban, Edoxaban, Prasugrel and Ticagrelor, Dipyridamole.

How long will I be in the Endoscopy Unit?

This largely depends upon how busy the department is. You should expect to be in the Unit for approximately 2-4 hours. The unit also looks after emergencies and these can take priority over outpatient lists. If you require an overnight stay following an FNA, you will be transferred from the unit to a ward.

What happens when I arrive?

- On arrival please report to the main desk where the receptionist will check your personal details.
- When you arrive in the department you will be met by a nurse who will ask you a few questions, including your arrangements for returning home. You will also be able to ask questions about the procedure.
- As you will be receiving intravenous sedation and a painkiller you are not permitted to drive, take alcohol, operate heavy machinery or sign any legally binding documents for 24 hours. Following the procedure you **must** have someone to accompany you home and stay with you for up to 8 hours. You are not allowed home alone in a taxi. If you are having sedation and you do not have anyone to accompany you home, then your procedure will be cancelled.
- The nurse will need to be given their telephone number so that she/he can contact them when you are ready for discharge.
- The nurse will ensure you understand the procedure and discuss any outstanding concerns or question you may have.
- You will have a brief medical assessment with an endoscopy nurse who will ask you some questions regarding your medical condition and any past surgery or illness you have had to check that you are sufficiently fit to undergo the procedure.
- Your blood pressure and heart rate will be recorded and if you are diabetic, your blood glucose level will also be recorded. Should you suffer from breathing problems a recording of your oxygen levels will be taken.
- If you are on anticoagulants and antiplatelet drugs you will have a blood test to check your clotting level.

- If you have not already done so, and you are happy to proceed, you will be asked to sign the consent form at this point.

Intravenous sedation and pain relief

- The sedation and painkiller will be administered into a vein in your hand or arm which will make you lightly drowsy and relaxed but not unconscious. You will be in a state called co-operative sedation: this means that, although drowsy, you will hear what is said to you and therefore will be able to follow simple instructions during the procedure. Sedation makes it unlikely that you will remember anything about the procedure.
- Whilst you are sedated we will continually check your breathing and heart rate so any changes will be noted and dealt with accordingly. You will be connected by a finger probe to a pulse oximeter, which measures your oxygen levels and heart rate during the procedure. You will be able to breathe normally throughout. Your blood pressure may also be recorded.

The endoscopic ultrasound procedure

- You will be escorted into the procedure room where the endoscopist and the nurses will introduce themselves and you will have the opportunity to ask any final questions.
- If you have any dentures you will be asked to remove them. Your teeth will be protected by a small plastic mouth guard which will be inserted immediately before the examination commences.
- Local anaesthetic throat spray will be administered while you are sitting up; it works very rapidly. The nurse looking after you will ask you to lie on your left side and will then place the oxygen monitoring probe on your finger. The sedative drug and painkiller will be administered into a cannula (tube) in a vein and you will quickly become sleepy.
- Any saliva or other secretions produced during the procedure will be removed using a small suction tube, rather like the one used at the dentist.
- The endoscopist will introduce the endoscope into your mouth, down your oesophagus into your stomach and then into your duodenum. Your windpipe is deliberately avoided and your breathing will be unhindered.
- The procedure takes approximately 30 minutes to one hour, after which you will be returned to the recovery area and your condition monitored.

After the procedure

- Unless specifically instructed otherwise, you will be allowed to rest for as long as is necessary. Your blood pressure and heart rate will be recorded and if you are diabetic, your blood glucose will be monitored. Should you have underlying difficulties or if your oxygen levels were low during the procedure, we will continue to monitor your breathing and can administer additional oxygen.

- Once you have recovered from the initial effects of any sedation (which normally takes 30 to 60 minutes) it will be necessary to check that there are no immediate complications. This may involve you having a chest x-ray and being asked to swallow some water.
- Depending upon your individual case you may be admitted to hospital, but you may be allowed home. Before you leave the department, the nurse or doctor will explain the findings, any medication or further procedures required and will also inform you if you require further appointments.
- Since sedation can make you forgetful, it is a good idea to have a member of your family or a friend with you when you are given the results of the procedure, although there will be a short written report given to you.
- Although you may feel fully alert following the procedure, the sedative drug remains in your blood system for about 24 hours and you can intermittently feel drowsy with lapses of memory. If you live alone, you MUST have someone to take you home and have made arrangements to be supervised for 8 hours once home.

Risks of the procedure

Endoscopic ultrasound is classified as an invasive procedure and has possible associated complications. These occur very infrequently but we would wish to draw your attention to them.

Potential problems

There is a slight risk of mechanical damage to crowned teeth or dental bridgework. You should tell the doctor or nurse if you have any of these.

Sedation

Sedation can occasionally cause problems with breathing, heart rate and blood pressure. If they occur, they usually only last a short time. You will be carefully monitored by an endoscopy nurse to ensure any problems are identified and rapidly treated.

Older patients and those who have significant health problems (such as people with breathing difficulties) will be assessed by the doctor before being treated.

The endoscopic procedure

The procedure itself can be associated with complications, such as damage to the lining of the gullet and stomach, perforation and bleeding. These complications tend to be found in severely ill inpatients and are very rare among outpatients.

If an FNA is done there is a small risk of bleeding or infection but these can be treated if they arise.

The results of the procedure will be discussed at the relevant multidisciplinary team meeting, these team meetings usually meet once per week.

General points to remember

- If you are unable to keep your appointment please notify the Endoscopy Unit as soon as possible on 0118 322 7459.
- It is our aim for you to be seen and investigated as soon as possible after your arrival. However, the unit is very busy and your procedure may be delayed. If emergencies occur, these patients will obviously be given priority over less urgent cases.
- The hospital cannot accept any responsibility for the loss or damage to personal property during your time on these premises.
- If you have any problems with a persistent sore throat, worsening chest or abdominal pain, please contact your GP immediately, informing them that you have had an endoscopy.
- If you are unable to contact or speak to your own doctor, contact the Endoscopy Unit during office hours (9.00am to 6.00pm) on telephone number 0118 322 7458.
- You can also ring your GP's out of hour's number or ring NHS 111; they can advise if you need to seek immediate medical care or not.
- Alternatively, for out of office hours and weekends, ring Sidmouth Ward on 0118 322 7469, as per the advice leaflet you were given upon discharge.

Checklist

Things to remember before your procedure

- Q Read the booklet carefully.
- Q If you would like any of this information translated into another language or in large print format or you need an interpreter at your appointment, please let us know.
- Q Note the date of the appointment in your diary.
- Q Wear loose fitting clothing.
- Q Nothing to eat for 6 hours and you may have sips of water up to 2 hours before your test.
- Q If you are having sedation, you **MUST** have someone to take you home and have made arrangements to be supervised for 8 hours once home, or your procedure will be cancelled.
- Q Bring your medications with you.
- Q Please telephone the Endoscopy Unit, at least 7 days before your procedure, on 0118 322 7458/5249 if you are taking Anticoagulants and Antiplatelet (Drugs that affect the blood) such as Warfarin, Clopidogrel, Dabigatran, Rivaroxaban, Apixaban, Edoxaban, Prasugrel, Ticagrelor and Dipyridamole
- Q Bring this booklet and consent form with you to the Endoscopy Unit.

Advice for people with diabetes undergoing an upper endoscopy (gastrointestinal procedures)

Before your upper endoscopy

You will be asked to have nothing to eat for at least six hours before the test. However, you are allowed small sips of water up to two hours before the test.

Do not take your diabetes tablets on the day of the test. Take your next dose of tablets when you are allowed to eat again.

If your diabetes is treated with a combination of insulin and tablets such as Metformin follow advice for tablets as before and insulin in following paragraph on insulin.

If your diabetes is treated with injections of either Exenatide (Byetta), Liraglutide (Victoza), Lixisenatide (Lyxumia) or Bydureon: **do not take the injection 24 hours prior to the examination.** Resume once you are eating normally again.

If your diabetes is treated with insulin:

For once daily insulin only e.g. Lantus (Glargine), Levermir (Determir), Tresiba (Degludec), Toujeo (New insulin glargine), Insuman Basal, or Insulatard and Humulin I: if your insulin is due on the morning of the test **take two-thirds of your insulin dose**. Take the normal dose the following morning after your test and once you are eating.

For twice daily long acting or intermediate acting insulin such as Lantus (Glargine), Levermir, Insulatard, Humulin I or Insuman Basal: **take two-thirds of your normal dose in the morning**. Take the normal dose after the test when it is next due once you resume your normal diet.

For twice daily mixture insulin e.g. Humulin M3, Humalog mix 25, Humalog Mix 50, Novomix 30, Insuman Comb 15, Insuman Comb 25, Insuman Comb 50: **take one-third of the normal dose in the morning**. Resume your regular dose in the evening once you are eating normally.

For four or more injections a day: **omit the quick acting insulin** (Novorapid, Humalog, Apidra, Humalog 200(new), Humulin S, Actrapid or Hypurine neutral, Insuman Rapid) **while you are on clear fluids only**. **Take two-thirds of the long acting insulin in the morning** if it is due and resume the normal evening dose as soon you are able to have a meal after your procedure.

For people with Type 1 diabetes who normally take long acting insulin at night: **take 20% less of the regular dose the night before the examination.**

For people with Type 1 diabetes on Insulin Pump therapy (Continuous Subcutaneous Insulin): This can be discussed with a member of the Diabetes Specialist Team but as a general rule **use a temporary basal rate reduction of 10% from 06.00 on the morning of the test.**

Remember to **monitor blood glucose levels four hourly if you are on insulin.** If your blood glucose level falls below 4mmol/L take 4-5 glucose tablets or 150mls of a glucose drink. Remember to inform a member of staff in the Endoscopy Unit.

This booklet has been reproduced from information from the British Society of Gastroenterology.

This document can be made available in other languages and formats upon request.

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Endoscopy Unit
Royal Berkshire NHS Foundation Trust, May 2019
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Gastroenterology Support Fund

The Gastroenterology Support Fund has been set up with the purpose of providing equipment to carry out gastrointestinal investigation and treatment which may not otherwise be available through NHS resources.

The Gastroenterology Department carries out many hundreds of complex diagnostic test procedures each year and is one of the most technically advanced departments in the UK. Nevertheless, much of the equipment and some of the staffing are funded through non-NHS money raised by donations and charitable resources. In Endoscopy this funding supports Specialist Nurse Training. In order to expand these facilities and to remain up to date with the technological advances that are continually occurring, further donations are greatly needed and appreciated.

How to donate

You can donate to the Gastroenterology Support Fund U200 in a number of ways (please ensure you quote the fund code U200 when making a donation):

- Cheques: Please make your cheques payable to the 'Royal Berks Charity Gastro Fund U200' and post to:

Royal Berks Charity
South Block Annexe
Royal Berkshire Hospital
London Road
Reading RG1 5AN

Please include your address details so we can acknowledge receipt of your donation and, if applicable, we can send you a Gift Aid form to further boost your donation if you are a UK taxpayer.

- Cash: If you wish to donate by cash, please bring your donation directly to the Charity Office or leave with Main Reception along with your contact details. The Charity Office is located upstairs in South Block Annexe.

For safety reasons, please do not send cash in the post.

- Credit and debit card: We accept donations through all major credit and debit cards. Please call us on 0118 322 8860 and quote Gastroenterology Support Fund U200.
- Online: To donate please visit www.royalberkshirecharity.co.uk and click on the 'Donate' button. In the message box please quote Gastroenterology Support Fund U200.

Patient details

Consent form

Patient agreement to endoscopic
procedure or treatment

Name of procedure(s) (include a brief explanation if the medical term is not clear)

Endoscopic Ultrasound.

Inspection of the upper gastrointestinal tract with a flexible endoscope with ultrasound (with or without biopsy and photography).

Biopsy samples will be retained.

Statement of patient

You have the right to change your mind at any time, including after you have signed this form.

I have read and understood the information in the attached booklet including the benefits and any risks.

I agree to the procedure described in this booklet and on the form.

I understand that you cannot give me a guarantee which particular person will perform the procedure. The person will, however, have the appropriate experience.

Where a trainee performs this examination, this will be undertaken under supervision by a fully qualified practitioner. **Signed** **Date**

Name (print in capitals)

If you would like to ask further questions please do not sign the form now. Bring it with you and you can sign it after you have talked to the healthcare professional

Confirmation of consent (to be completed by a health professional when the patient is admitted for the procedure).

I have confirmed that the patient/parent understands what the procedure involves including the benefits and any risks.

I have confirmed that the patient/parent has no further questions and wishes the procedure to go ahead.

Signed

Date

Name (print in capitals)

Job title

If your patient requires further information please complete last page.

Patient details

Consent form

Patient agreement to endoscopic
procedure or treatment

Statement of health professional *(to be filled in by a health professional with the appropriate knowledge of the proposed procedure, as specified in the consent policy)*

In response to a request for further information I have explained the procedure to the patient. In particular, I have explained:

The intended benefits

1. To diagnose and treat a possible cause of your symptoms.
2. To review the findings of any previous endoscopy.

Serious or frequently occurring risks

Endoscopy risks: Perforation, bleeding, damage to teeth.

Sedation or throat spray risks: Adverse reaction to any of these agents.

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment), any extra procedures which may become necessary and any particular concerns of those involved.

Signed

Date

Name (print in capitals)

Job title

Statement of interpreter *(where appropriate)*

I have interpreted the information above to the patient/parent to the best of my ability and in a way in which I believe she/he/they can understand.

Signed

Date

Name (print in capitals)