



University Hospitals Birmingham
NHS Foundation Trust



Having an Endoscopic Ultrasound

Information for patients and carers

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Key facts

If you will be having sedation for your examination you will need a responsible adult to collect you from the endoscopy department after the procedure and stay with you overnight. If this is not possible please contact us as we may need to arrange admission.

If you are taking any medication to thin your blood **please carefully read** 'What about my medication?' on page 6.

If you have diabetes please contact us.

Please note the way we need you to prepare for your examination (see 'Preparing for an EUS').

Introduction to Endoscopic Ultrasound

Thank you for reading this information booklet. Please read this booklet carefully and also the consent form.

We need your written consent in order to proceed with the examination. This booklet explains the examination and what the risks are. If there is anything you do not understand, or if you wish to discuss the investigation further, one of the doctors in the endoscopy unit will be happy to answer your questions when you come for the procedure.

If you have questions about the procedure before coming to the appointment please contact us on 0121 371 2382 or 0121 627 2209.

What is an Endoscopic Ultrasound (EUS)?

Endoscopic Ultrasound (EUS) is a procedure used to help find the cause of your symptoms and make a diagnosis. It uses a special instrument called an endoscope. An endoscope is a thin, flexible tube which can be passed through your mouth via your gullet and stomach into the first part of the intestine. If you are having

a rectal EUS the endoscope is passed through your anus into the lower part of your bowel. This particular endoscope has an ultrasound probe at its tip which makes pictures. These pictures allow us to look at and through your gullet (oesophagus) or stomach in order to assess the gut wall or organs lying next to the gut such as the pancreas, gallbladder, bile ducts, liver and 'glands' etc. It is also possible to take samples of tissues using a fine needle passed through the endoscope.

What are the reasons you may be advised to have an EUS?

There are many medical problems that can be investigated by EUS. If you are uncertain why you have been referred for this test it is important that you contact your specialist to discuss before the test.

Some of the reasons that you may be advised to have an EUS include:

- To investigate the gall bladder and/or enlarged bile ducts (e.g. for stones)
- To investigate tumours or cysts in the pancreas
- To assess patients already diagnosed with cancer in the oesophagus, stomach or rectum
- To assess enlarged lymph nodes
- To clarify the nature of an abnormality noted at a previous endoscopy test

This is not a complete list and there are many other indications for which the EUS procedure can be helpful.

What are the benefits to the procedure?

This procedure allows the wall of the intestine and the surrounding tissues and organs to be examined to look for any problems. Biopsies, or tissue samples, may be taken of any problem areas. The results will be used to help plan any treatment you may need.

What are the side effects of the procedure?

You may have mild bloating and abdominal discomfort for a few hours. A sore throat is normal for 24-48 hours.

What are the alternatives to this procedure?

This test is usually used to clarify the findings of another investigation and allow tissue samples to be taken. CT scans and MRI scans are potential alternatives although are often less informative. EUS often gives a more detailed picture and importantly allows tissue samples to be taken.

Preparing for an EUS (except for rectal EUS)

To allow a clear view, the stomach must be empty, so follow these instructions:

- Do not have anything to eat for at least six hours before the procedure
- You may drink clear fluids (water, black tea or black coffee) up to two hours before the procedure. Please avoid milk during this time

What about my medication?

Take your routine medication at the usual time with a sip of water.

If you are diabetic or pregnant, please contact the unit as soon as possible as you may need some further information.

Please contact us on 0121 371 2382 or 0121 627 2209 if you are currently taking any of the following blood thinning tablets as they may need to be stopped before the procedure (you do not need to stop aspirin).

- Warfarin
- Clopidogrel (Plavix®)
- Dabigatran (Pradaxa®)
- Apixaban (Eliquis®)
- Rivaroxaban (Xarelto®)
- Prasugrel (Efient®)

Please bring any medication you are currently taking (including sprays and inhalers) with you to your appointment.

People with diabetes

Please contact us on 0121 371 2382 or 0121 627 2209 for advice at least 1 week before your appointment.

Bowel preparation (only for people having a rectal EUS)

In order to get good views of the bowel it needs to be clean and empty. One of the endoscopy department nurses will give you an enema to make you go to the toilet when you come to the endoscopy department. Please try to retain the fluid for as long as possible in order for it to be as effective as possible (for about 10 minutes).

When you arrive at the hospital

Follow the signs to 'Outpatient Endoscopy' on the ground floor and report to the reception desk. A receptionist will check your details and direct you to the waiting area. The appointment time you have been given is the time you should arrive at the unit.

Please inform us if you think you have a latex allergy or think that you may be pregnant.

- Please do not bring any valuables with you
- Please do not wear any nail varnish, lipstick or jewellery. Tongue studs must be removed

You will be brought from the public waiting area into the endoscopy unit and the initial consultation room. A nurse will ask you routine questions about medical problems, write down your medications and take your blood pressure.

A doctor from the team performing the procedure will then talk to you. The procedure will be explained to you including its benefits and possible risks. We want you to feel as relaxed as possible and will be pleased to answer any questions that you might have. You are welcome to bring a relative or friend into this consultation.

If you are happy to have the test you will need to sign a consent form confirming your understanding and acceptance of the procedure. You may take home a copy of your consent form. This form also asks for your consent to further procedures that may be necessary. Tissue may be used for research purposes but you can request that samples are not used for this purpose.

You may then need to wait in a small waiting room within the endoscopy unit before going into the examination room.

Sedation and throat spray

In order to make the procedure as comfortable as possible, sedatives and local anaesthetic spray to your throat are recommended for EUS (except for rectal EUS when no sedation is routinely required). Occasionally it may be possible to do the EUS procedure with throat spray alone but in our experience this is only suitable for a small minority of people (< 5%). If you feel that you want the test with throat spray alone please call us on 0121 371 2382 or 0121 627 2209 to discuss.

To make sure you stay safe after the sedation we need for you to arrange to be picked up from the endoscopy department after the test. You will also need someone to stay in the same home with you overnight.

The procedure

You will be taken to the procedure room which is either located within the endoscopy unit or else in the imaging department which is a short walk from the endoscopy unit. The doctor performing the test and the nurses will introduce himself or herself and you may ask any final questions. If you are having sedation a small plastic cannula (tube) will be placed into a vein in your hand or arm (this may already have been done).

Local anaesthetic throat spray is applied when you are sitting up (you will need to remove any dentures at this point). The spray has a banana smell, but a bitter taste and may feel hot on the back of the throat as you swallow it. The effect is rapid and you will notice loss of sensation to your tongue and throat.

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 and a blood pressure cuff on your arm. You will be given oxygen during the procedure through small plastic tubes which sit just inside your nostrils. Any teeth will be protected by a small plastic mouth guard, which will be inserted immediately before the procedure commences.

The sedative will be given at this time. The sedative effect varies from person to person. Most experience a relaxing effect, some doze off and for many the sedative means that much of the procedure is forgotten (it gives an amnesic effect).

Any saliva or secretions produced during the procedure will be removed using a small suction tube, like the one used at a dentist.

The doctor will place the endoscope into your mouth, over your tongue, down your oesophagus (gullet) and into your stomach and then into your duodenum. Your windpipe is deliberately avoided and your breathing will not be affected. During the procedure, samples may be taken from tissues next to the digestive tract or from the lining of your digestive tract for analysis in our laboratories. These will be retained. Any images taken will be recorded electronically.

The procedure usually takes approximately 15 to 20 minutes from the time the sedation is given.

You will then go to the recovery area within the endoscopy unit for the sedative effect to wear off. The throat spray wears off after one hour and at this point you will be given fluids to drink and a small snack (usually tea and biscuits).

Rectal EUS procedure

Similar to the standard EUS procedure you will be brought in to the procedure room after having the enema. You will lie on your left hand side and the doctor will place the endoscope into your rectum. This may be uncomfortable but is usually not painful. If painful, you may inhale gas to ease this pain. Because you do not routinely need sedation after rectal EUS you may go home shortly after the procedure.

What are the risks associated with this procedure?

This is a safe test but problems can arise. Your doctor feels that any risks of undergoing this test are outweighed by the benefits of finding any problems or in planning your treatment. The doctor doing the test will be happy to discuss any questions you may have about the risks before undergoing the test.

- Throat discomfort for 1 or 2 days is common
- Causing a tear ('perforation') in the wall of the gullet, stomach or small bowel is a rare complication occurring in 1 in 1,000 procedures. If perforation happens this usually results in a hospital stay, being very unwell and often requires an operation to repair the tear
- Inflammation of the pancreas (pancreatitis). This is uncommon and may occur after a biopsy of the pancreas has been taken
- Significant bleeding is rare and very rarely may need treatment or a blood transfusion
- Infection may result if a biopsy is taken of fluid-filled structures (e.g. pancreas cysts). We may give you antibiotics to take for a number of days afterwards as a precaution
- Sedation can occasionally cause problems with breathing, heart rate and blood pressure. If any of these problems occur, they are usually short-lived
- Ingestion of fluid into the chest causing a cough or chest infection
- Mechanical damage to teeth or bridgework
- Like any test, EUS is not perfect and abnormalities can be missed. In addition, biopsies taken by this technique may not always diagnose an abnormality, even if one is present

How long will I be in the endoscopy department?

This varies but you should expect to be in the department between 2 to 3 hours to include recovery time. We will endeavour to keep you informed of any expected delays.

Sometimes a person who has arrived after you may be taken through to a procedure room before you. This does not mean that they have been given priority over you but maybe be having a different procedure.

Going home after the procedure

You will be able to go home after you have recovered from the sedation. This usually takes one hour but may take longer.

If you had sedation you should rest for the remainder of the day. You must be accompanied home and someone should stay with you overnight. It is advisable to have the next day off work. During the first 24 hours following sedation you **must not**:

- Drink alcohol
- Drive any vehicles (including riding a motorcycle or bicycle)
- Take sleeping tablets
- Operate machinery or electrical items (including a cooker or kettle)
- Sign any legally binding or important documents
- Work at heights (including climbing ladders or onto chairs)

Please note that sedation can impair your reflexes and judgement for up to 24 hours even when you feel wide-awake.

If you do not have any sedation you will be able to go home almost straightaway if you have had no biopsies and after approximately 30 minutes if you have had biopsies. When home you can get back to normal.

When will I know the results?

Before discharge, you will be given an opportunity to talk to the doctor who can give a brief outline of the test results. If a biopsy has been done, the laboratory results will take longer; please allow 7-14 working days. If you were referred for the test from a doctor from the Queen Elizabeth Hospital you will get your results from them. If you have not heard anything after three weeks please contact your doctor's secretary via the hospital switchboard – 0121 627 2000. If you were referred from an external hospital your case will frequently have been discussed with one of the doctors in this hospital so you should still expect to hear from us unless the doctor states otherwise. If you have not heard anything within three weeks please contact the EUS team on 0121 371 2382 and we will help you.

General points to remember

- If you cannot keep your appointment please notify the department as soon as possible
- If you are having sedation, please arrange for a responsible adult to collect you and stay with you overnight
- It is our aim for you to be seen and investigated as soon as possible after your arrival. However, the department is sometimes very busy and your procedure may be delayed. Emergency patients will be given priority over less urgent cases
- The hospital cannot accept any responsibility for loss or damage to personal property when on these premises
- The unit is a mixed sex environment but there are separate recovery areas for men and women. Every effort will be made to ensure your privacy and dignity whilst you are in the department
- Following the procedure, if you have any problems with persistent abdominal pain or bleeding please contact your GP immediately, informing them that you have had an endoscopy

- If you are unable to contact or speak to your doctor, you must go immediately to the Accident and Emergency department

Reasons we have to cancel or defer a test on the day

The most common reasons we have to defer doing the test when you come are:

- You do not have a responsible adult to bring you home **and/or** to supervise you for the night if you are having sedation
- You are taking blood thinning medications and they have not been stopped
- You have not fasted as instructed
- You have not arrived on time. Please contact us on 0121 371 3841 (Endoscopy unit reception) or 0121 371 3832 (Endoscopy unit office) if you think you are going to be late
- Very occasionally we do not proceed as you are particularly frail. If you think this might apply to you please contact us on 0121 371 2382

To contact us by telephone before your appointment

EUS appointments

Monday-Friday 09:00-16:00

Telephone: 0121 371 2382

Endoscopy Unit Main Office

Monday-Friday 08:30-18.00

Telephone: 0121 371 3832

Saturday 08:30-16:00

Telephone: 0121 371 3832

Endoscopy Unit Reception Desk

Monday-Friday 08:30-16:00

Telephone: 0121 371 3841

Please keep this information safe in case you wish to refer to it in the future.



The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm

Contact telephone numbers:

Booking team **0121 627 2209**

Queen Elizabeth Hospital Birmingham
Mindelsohn Way, Edgbaston, Birmingham B15 2GW

Endoscopy unit 0121 371 3838
