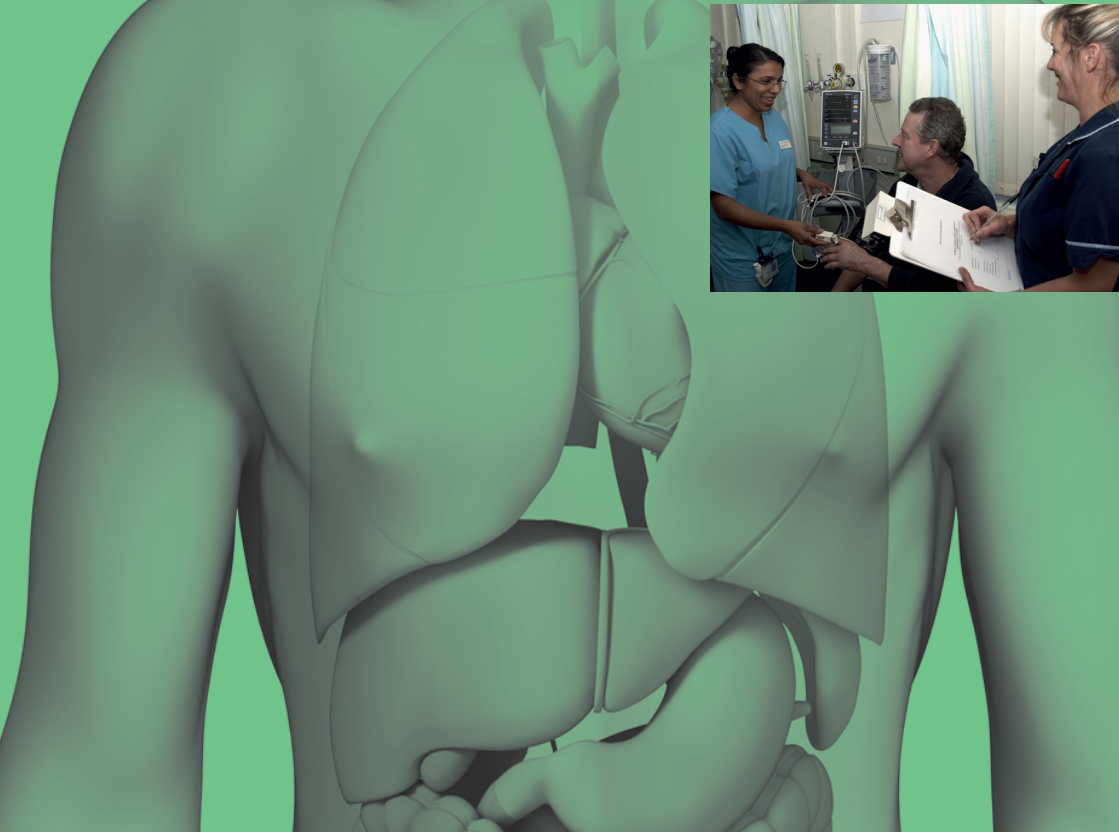


# Endoscopic Ultrasound (EUS)

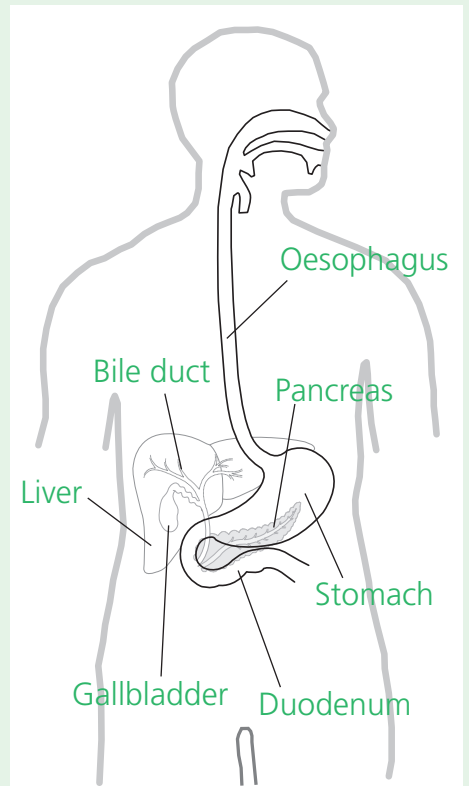
Endoscopy Unit patient information booklet



## What is EUS?

Reading this information leaflet will help you understand what happens when you have an Endoscopic Ultrasound (EUS). An EUS gives the doctors extra information, and is used to determine the treatment most suitable for you. It is a method of obtaining high quality pictures or images of the digestive tract. Sometimes it is used to obtain a tissue sample through a small needle (EUS-FNB).

It is carried out by passing a thin flexible tube with a camera and a small ultrasound probe at the tip (an endoscope), through the mouth, down the oesophagus (gullet) and into the stomach and duodenum.



## What are the benefits of having EUS?

EUS is necessary for further evaluation or treatment of your condition. It can be more accurate than x-ray films or CT scans (Computerised Tomography).

## Who will perform the EUS?

An Endoscopist (doctor) carries out the procedure. Other health care professionals wishing to learn more about EUS and digestive diseases may be present or assisting in the examination room. Please tell your nurse if you object to them being present. This will not affect your treatment in any way.

## Will I be awake during the EUS?

EUS is usually performed under conscious sedation. You will have a small tube (cannula) placed into a vein – usually in the back of your hand. Any medicines you need will be given through this to avoid you having more injections than necessary. At the start of the procedure, you will be given medication through the cannula which will make you feel relaxed and some people feel a bit drowsy during the procedure, but you will not be fully asleep. You will also be given a painkiller to minimise any discomfort during the test.

One of the side effects of sedation is that you may not remember having the procedure done. You may also forget things that are said to you for a few hours afterwards. This is normal and nothing to worry about. Having had sedation, your judgement and/or coordination may be impaired for the next 24 hours so there will be restrictions on driving and other activities, and you will need supervision for the next 24 hours. For more information on the restrictions after sedation, please see the “Going Home” section.

If there is no one who can stay with you overnight after the procedure, please contact appointment enquiries on **01274 273073** as we may need to arrange for you to stay overnight in the hospital and go home the following day.

## Is EUS painful?

EUS can be uncomfortable with some discomfort from trapped wind and bloating being quite common, but rarely severe. This should quickly settle afterwards. You may also have a sore throat, but this should settle within 24 to 48 hours.

## How do I prepare for EUS?

To help us get good views and avoid the risk of vomiting during the procedure, it is important that you do not have anything to eat or drink before the procedure. Therefore you must follow these instructions:

- If your EUS is in the morning: Do not eat anything after midnight. You can take your usual medication before 7.00am with a sip of water.
- If your EUS is in the afternoon: You may have a light breakfast (cereal or toast) and take your normal medication before 7am. Do not eat or drink anything after this time.

If you have diabetes, or are taking warfarin, clopidogrel or other blood thinning medications please telephone the Endoscopy Unit on **01274 364627** prior to your appointment for further advice (you may continue to take aspirin prior to the procedure).

Nail varnish (and artificial nails) should be removed from fingers and toes to allow us to use equipment that measures the oxygen in your blood and your pulse rate during the procedure.

## Do I need to bring anything with me?

- A list of the medication you are currently taking.
- Any medication you may need whilst you are with us eg inhalers.
- You may also want to bring something to read whilst you wait.
- Please do not bring any valuables into hospital with you.

# What happens when I arrive on the Unit?

You will be met at reception and then a nurse will ask you some questions that will help us to plan your care:

## Important – please tell the nurse or doctor if you:-

- Have had any allergies or bad reactions to drugs or other procedures.
- Have any medical conditions such as chest or heart conditions, epilepsy, diabetes etc.
- Are suffering from an acute illness eg cough, cold, sore throat.

When you are in hospital it is essential to wear a wristband at all times to make sure you are safe during your stay. The wristband will show accurate details about you on it including all the information that staff need to identify you correctly and give you the right care.

If you do not have a wristband whilst in hospital, then please ask a member of staff for one. If it comes off or is uncomfortable, ask a member of staff to replace it.

A doctor or specialist nurse will discuss the benefits and possible risks of the procedure with you and will then ask you to sign a consent form. Signing the consent form means that you are satisfied with the information you have been given, you understand what the procedure involves, the benefits, risks and alternatives and that you agree to the procedure. They will also answer any questions you may have. If you have any worries or queries at this stage, please ask; we will want you to be as relaxed as possible for the procedure and will be happy to answer any questions. The procedure will be performed on the Endoscopy Unit.

A small needle (cannula) will be placed into a vein usually in the back of your right hand and your medication (a sedative and painkiller) will be given through this. This will avoid you having any more injections than necessary. In some instances you will be given a dose of antibiotics through the cannula. These are given to reduce the risk of developing any infection during the procedure but are not needed in all cases.

Expect to be on the Endoscopy Unit for up to 4 hours to allow time for your admission, consent, the procedure itself and recovery afterwards.

## What happens during the EUS?

During the procedure you will be resting comfortably on a trolley on your left side in the procedure room, where a nurse will be with you throughout. If you are having throat spray, your throat will be sprayed with a local anaesthetic to numb the back of your throat. The painkiller and sedative will be injected through the small plastic tube (cannula) in a vein on the back of your hand, and you should start to feel relaxed almost immediately.

A probe will be placed on one of your fingers to measure the oxygen in your blood and your pulse rate. You will be given oxygen to breathe via a small tube placed in your nostrils. A mouth guard will be placed in your mouth between your teeth to protect your teeth and the endoscope (if you have dentures they will be removed first and kept in a denture pot).

The endoscope is then slipped to the back of your throat and you will be asked to take a swallow, the doctor will then guide the endoscope into your oesophagus and into the stomach and duodenum if required. The endoscope will be gently moved around to allow the doctor to carefully examine the surrounding organs using the ultrasound probe within the endoscope. Photographs and

video are routinely saved during the procedure for the purpose of diagnosis. These images may be used for teaching purposes, but if so your personal details will be removed.

If a sample is being taken, a needle will be guided through the wall of the oesophagus, stomach or duodenum into the area to be sampled and a tissue sample obtained. The needle is usually passed 3-4 times into the area to be sampled but this is either painless or felt as a pressure discomfort rather than a sharp pain. The procedure takes approximately 15-30 minutes.

## Is there a risk with EUS?

EUS is generally a safe procedure. Complications are rare occurring in less than 1 in 100 cases. Possible complications are:

- Perforation or tear through the stomach wall or gullet. If this does occur it may require an operation to repair it.
- Bleeding.
- Allergic reaction to the sedation or throat spray.
- Damage to loose teeth, crowned teeth or dental bridgework- although your mouth will be well protected with a mouth guard.
- Infection in the sampled area if a tissue sample is taken.
- Pancreatitis if a tissue sample is taken from the pancreas.
- Heart and breathing problems such as a chest infection or heart attack related to the sedation.
- Sometimes, in up to 15% of cases, if a sample is taken it does not identify the cause of the problem
- Very rarely, despite our best care a complication such as perforation, bleeding, pancreatitis, heart attack or allergic reaction, can be so serious that it is life threatening. However, death due to EUS is extremely rare and occurs in less than 1 in 12,000 cases.

- As with any procedure, there is always a risk of hospital acquired infections including COVID 19; however, please be reassured that we have a high number of additional safety measures in place to help reduce any such risks during the pandemic. This includes increased use of personal protective equipment for our staff, effective handwashing, regular testing of staff and robust infection control procedures.

If you are worried about any complications you can discuss these with the nurse or doctor when you come for the procedure.

## Are there any alternatives to EUS?

An EUS gives more detailed information than is available from other tests such as CT scan. This detailed information is required to plan the best treatment for you. If a tissue sample is being taken the area that is being sampled can usually only be reached with EUS.

## What happens after the EUS?

Once the endoscopist has seen everything they needs to, the endoscope will be removed and you will be taken to the recovery area to rest. When the effects of the sedation and / or local anaesthetic have worn off you will be offered something to eat and drink before you are discharged home.

## When do I get my results?

The medical team will discuss the results of the procedure with you and any further follow up required before you are discharged home. A full report of your procedure will be sent to the doctor who requested the procedure and they will arrange a further appointment if needed. Laboratory results from samples that are taken during the procedure will not be available to your Specialist for 1 to 2 weeks.



## Going home

You are usually discharged the same evening providing you have no problems. Having had sedation, your judgement and/or coordination may be impaired for the next 24 hours. There are a few simple precautions that you should follow for 24 hours after your EUS:

- Do not drive or operate machinery.
- Avoid alcohol and non-prescribed drugs.
- Avoid signing legal or important documents.
- You need a responsible person to take you home and stay with you overnight.
- Do not lock the toilet door, or make yourself inaccessible to the person looking after you.
- Do not undertake activities involving heights.
- Do not undertake sporting activities

**It is very important that you do not drive yourself home after the procedure but must arrange for someone to collect you at the time specified by the Endoscopy Unit. A friend or relative must accompany you even if you are travelling home by taxi. You must also ensure that you have somebody to stay in your home with you overnight, following this procedure.**

## When to get medical help or advice

If you develop any of the following symptoms after discharge, you should seek urgent medical advice from the Endoscopy Unit, NHS 111, your GP or Emergency Department:

- Fever or high temperature (38°C or more).
- Severe chest, neck or abdominal pain.
- Persistent vomiting.
- If bowel motions turn black.

# Useful telephone numbers

If you have any problems within 48 hours of discharge please ring the ward / department that you attended. If the ward/department is closed please contact Ward 5 at Bradford Royal Infirmary (BRI).

- Endoscopy Unit BRI – **01274 276393** (Mon to Fri 8.30am to 5.30pm)
- Ward 5 BRI – **01274 364413**(24 hours)
- If you are presently an inpatient on one of the wards at Bradford Royal Infirmary or St Luke’s Hospital and you have further questions about the proposed procedure please ask the ward staff to ring the Endoscopy Unit and they will make arrangements for a member of staff to speak to you
- Appointment enquiries – **01274 273073** (Mon to Fri 8am to 4.00pm)

## By Textphone

You can contact us using the Relay UK app. To contact us ring **18001 01274 273073** (Appointment enquiries).

## Interpreters

If you require an interpreter please arrange for someone to contact **Appointment enquiries on 01274 273073**. We use professional interpreters rather than family and friends.

## Smoking

Bradford Teaching Hospitals NHS Foundation Trust is a smoke-free organisation. You are not permitted to smoke or use e-cigarettes in any of the hospital buildings or grounds.

## Frequently Asked Questions?

- 1 Will it hurt? *See page 2*
2. Why can't I be put to sleep? To put you to sleep for a procedure involves giving a general anaesthetic. This is not available routinely and it increases the risk associated with the procedure. It is not required for the vast majority of patients because the procedure is usually well tolerated.
3. How long will it take? *See page 6*
4. When do I get my results? *See page 7*
5. Do I need somebody with me afterwards? *yes, see page 8.*

If you have any further questions or have any difficulty reading this information and would like to discuss the content, please ring the Endoscopy Unit on 01274 276393 or, write your questions down and ask them when you come for your procedure.

If you need this information in another format or language, please ask a member of staff to arrange this for you.



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**If you require a version of this booklet in large print please ring Appointment enquiries on 01274 273073 and arrangements will be made to send you one.**

Authors: Updated Sept 2023 by Dr Jowett, Consultant Gastroenterologist and Endoscopy Lead, with patient involvement, based on the 2018 version

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