

Endoscopic Ultrasound (EUS)



Endoscopy Department
Shrewsbury and Telford Hospital NHS Trust

What is an Endoscopic Ultrasound (EUS)?

Endoscopic Ultrasound plays a role in evaluating disorders of the oesophagus, stomach and surrounding organs, including the pancreas and bile ducts; it also measures the thickness and spread of abnormalities in the oesophagus and stomach, or to assess a cancer that has already been found. EUS is an examination that combines endoscopy and ultrasound in order to obtain images and information about the digestive tract and the surrounding tissue and organs using a flexible endoscope. An endoscope is a long flexible tube about the size of your little finger, with a bright light at the end. It also has a small ultrasound transducer at the end that can send out sound waves allowing the doctor to examine and take pictures of your digestive system.

In certain conditions EUS is also used to guide a special injection as treatment for severe pain, this is called a Coeliac Plexus Neurolysis (CPN)

- Biopsy: during the procedure tissue (biopsy) samples may be taken. This is sometimes referred to as “fine needle aspiration” FNA .This means that a very small needle will be inserted through the flexible tube to sample cells in the unusual area of the oesophagus (food pipe), stomach, bowel or pancreas noticed in previous tests or x-ray. This is normally a painless procedure but it may cause some slight discomfort. Sometimes EUS can be used to take fluid samples.

About your appointment

Please be aware that on occasions there can be a slight delay between your nurse admission and the time you have your procedure. The Endoscopy unit often has to deal with emergency cases which may cause delays to your appointment time. The length of time you will be here will vary but may be anything from two to four hours. The person accompanying you is welcome to stay in our waiting area or alternatively we can telephone them when you are ready to be collected. Please note car parking charges are in force. Ask your admitting nurse if you require any further information during your admission check.

Property

Please do not bring valuables to the hospital. We cannot accept any responsibility for the loss or damage to personal property during your time in the unit.

Risks, benefits and alternatives

What are the benefits?

EUS allows a more detailed assessment of the tissue and surrounding organs. The ultrasound component allows us to obtain valuable information about these organs, which cannot be given by other tests.

The purpose of the FNA / biopsy is to get tissue samples in order to make a specific diagnosis to plan further investigation and management

- Dependent on the results of this test, which could be normal or abnormal, further tests or treatment maybe recommended.

Are there any risks?

As with every medical procedure, there are some risks involved. Please be reassured that your doctor would only have recommended EUS if the benefit to you from the procedure clearly outweighs these small risks. Any complications could mean you need to stay in hospital for treatment.

- Diagnostic EUS carries a very small risk (1 in about 1,000 cases) of haemorrhage (bleeding) or perforation (tear) of the gut following which surgery may be necessary.
- The use of guided needle sampling slightly raises the risk of haemorrhage but the risk remains very slight. The risk of perforation is about 1 in 1,000 when using an endoscope to take samples with EUS.
- If FNA is performed on the pancreas, pancreatitis (inflammation of the pancreas) may occur. It is severe in about 1 in 100 procedures and you may require hospitalisation.
- Reaction to any sedation or painkillers used. This can be resolved by the use of other drugs.
- Damages: to dental bridgework, loose or crowned teeth.

Severe complications are rare, but may require emergency surgery, blood transfusion or, in extremely rare circumstances, result in death.

If you have a Coeliac Plexus Neurolysis (CPN) we will observe your blood pressure for a while after the procedure. CPN may temporarily lower your blood pressure, but this is very unusual. Some patients may have diarrhoea for a few days after the procedure. A very small number may experience a temporary increase in pain. A very rare complication that may occur is an abnormal heart beat (arrhythmia) which could potentially be serious. During the procedure we will monitor your heart for signs of this.

Are there any alternatives to an Endoscopic Ultrasound?

You may or may not have had radiological scans; however they are not as detailed as this examination.

Preparation for the procedure

What preparation is required?

Diabetic

If you are taking medication or insulin please follow the advice that is attached to your appointment letter.

Medication to thin your blood

If you are taking any medication to thin your blood please follow the advice that is attached to your appointment letter.

Current medication

Please bring a list of any current medication; you may resume your regular diet and medication after the procedure.

Nil by mouth

To allow a clear view during the procedure the stomach must be empty. It is important that you do not have anything to eat for at least 6 hours prior to your appointment time. You may have **sips of water only** for up to 2 hours prior to your appointment.

Photographs

We will take photographs during the procedure; these will be kept in your medical records.

Training

The training of doctors and other health professionals is essential to the continuation of the NHS, and improving the quality of care. Shrewsbury and Telford Hospital's Endoscopy Units are both training units and sometimes deliver national training courses. All trainees are experienced doctors or nurses and the procedure is performed under the direct supervision of an expert consultant or nurse trainer. The trainer is there to ensure your safety and comfort.

You can however, decline to be involved in the formal training of medical and other students; please inform the nursing staff on admission, this will not affect your care and treatment.

Pregnant

Please inform the unit prior to your appointment if you are pregnant.

What happens when you arrive at hospital?

On admission

After admission by reception staff a member of the nursing team will prepare you for your procedure. She will ask you some questions, including your medical history. The nurse is very aware that you may be worried and anxious so do not be afraid to ask any questions.

Consent

The nurse will explain the procedure to you and discuss any potential risks related to the procedure. You will have the opportunity to ask any further questions. You will be asked to sign the consent form by the Endoscopist confirming that you understand and agree to go ahead with the procedure. You can change your mind about having the procedure at any time.

The procedure

What should I expect during the procedure?

- You will be collected and taken into the procedure room where the Endoscopist and the nurses will introduce themselves. You will have the opportunity to ask any questions.
- You may have your throat sprayed with a local anaesthetic before the procedure begins.
- While you are lying comfortably on your left side the Endoscopist / nurse will place a needle into a vein.

- Sedation will be given through this needle to help you relax, but you will not be completely asleep (this is not a general anaesthetic) for this procedure. The needle will be removed prior to discharge.
- If you have any dentures, you will need to remove them at this point, any remaining teeth will be protected by a small plastic mouth guard which will be inserted immediately before the examination commences.
- You will be given oxygen through small tubes into your nostril.
- In order to monitor your heart rate and breathing the nurse looking after you will clip a probe onto one of your fingers.
- The Endoscopist will introduce the gastroscope gently into your mouth, down your gullet into your stomach. You may gag slightly; this is quite normal and will not interfere with your breathing or swallowing.
- Your stomach will be gently inflated with air to expand it so that the lining can be seen clearly, which will make you burp and belch a little. Most of the air is taken out as the endoscope is removed.
- Any saliva produced will be removed with a small suction tube similar to that used at the dentist.
- A nurse will be with you throughout your procedure giving you guidance and support. You may also choose to hold the hand of the nurse.
- The procedure can take from 30-90 minutes.

After the procedure

What happens afterwards?

Once completed, the nurse caring for you during your procedure will take you to the recovery area where you will rest until fully recovered.

Maintaining the privacy and dignity of our patients is important to us. The recovery area is divided into separate areas for male and female patients.

If you have had sedation you will be monitored until you are discharged home. You will be allowed to rest for as long as necessary.

Discharge arrangements

What happens when I am ready for discharge?

The nursing staff looking after you will speak with you prior to discharge. A report of the examination will be given to yourself and a copy sent to your GP. If you have had sedation this can sometimes make you forgetful so please have someone with you at this discussion. An aftercare sheet will be given to you prior to leaving the unit which will contain all relevant information. Biopsy results may take a number of weeks to be available. The numbing effect of

the throat spray may last for one hour. After this period of time and when the numbness has worn off, you will be able to eat and drink normally.

Please remember: Sedation may affect your judgment and reflexes for the rest of the day; therefore it is important that you have a responsible adult to take you home following the procedure and remain with you for the next 12 hours. You must not drive a vehicle, drink alcohol, operate any machinery, and sign any important or legal documents for 24 hours following your procedure.

Contact details for more information

If you are worried or have any questions please do not hesitate to contact the hospital where you have been offered your appointment. Endoscopy Units

- Princess Royal Hospital, Telford Tel: 01952 565700 / 565701
- Royal Shrewsbury Hospital Tel: 01743 261064 / 492395

Further information is available from;

- **Patient Advise and Liaison Service (PALS)**
PALS will act on your behalf when handling patient and family concerns; they can also help you get support from other local or national agencies. PALS are a confidential service.

Royal Shrewsbury Hospital Tel: 01743 261000 Ext 1691
Princess Royal Hospital, Telford Tel: 01952 641222 Ext 4382

Useful website

- **CORE - Digestive Disorders foundation**
Provides information leaflets on a wide range of digestive disorders. For patient information leaflets, send a stamped addressed envelope stating any information you require to the following address:

Address: CORE, 3 St Andrews Place
LONDON, NW1 4LB
Telephone: 020 7486 0341 (this is not a helpline)
Website: www.corecharity.org.uk

- **Patient UK**
Provides leaflets on health and disease translated into 11 other languages as well as links to national support/self help groups and a directory of UK health websites.

Website: www.patient.co.uk

Disclaimer

- This leaflet is provided for your information only. It must not be used as a substitute for professional medical care by a qualified doctor or other health care professional. Always check with your doctor if you have any concerns about your condition or treatment. This leaflet aims to direct you to quality websites: these are correct and active at the time of production. The Shrewsbury and Telford Hospital NHS Trust is not responsible or liable, directly or indirectly, for ANY form of damages whatsoever resulting from the use (or misuse) of information contained in this leaflet or found on web pages linked to by this leaflet.

Website: www.sath.nhs.uk

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