

Endoscopic Ultrasonography

Endosonography (or endoscopic ultrasound – EUS) is a procedure performed under sedation using an endoscope (a thin, flexible telescope) specially equipped with miniature ultrasound probe at its tip. EUS is used to investigate or treat conditions of the oesophagus, stomach, duodenum, rectum, pancreas, and other organs near the gastrointestinal tract including the pancreas, liver, gallbladder and lungs. You should tell your doctor, and the nursing staff, if you are sensitive or allergic to any drugs, especially iodine, antibiotics, anaesthetic drug, and sticking plasters. If you take aspirin or other blood thinning treatments this should be discussed before the endoscopy, as sometimes these medications have to be stopped. Fish oil tablets should be stopped for 10 days before the EUS.

Upper GI Endosonography Indications

EUS provides your doctor with additional information and complements other imaging tests by providing detailed images of your digestive tract and nearby organs. Your doctor can use EUS to diagnose certain conditions that may cause abdominal pain or abnormal weight loss. EUS is also used to evaluate known abnormalities including lumps or lesions which were detected at a prior endoscopy or were seen on x-ray tests, such as computed tomography (CT) scans or MRI. EUS provides a detailed image of the lump or lesion which can help your doctor determine its origin and help treatment decisions. EUS can be used to diagnose diseases of the pancreas, bile duct, and gallbladder when other tests are inconclusive or conflicting, and allows biopsy sampling if needed.

Why is EUS used for patients with cancer?

EUS helps your doctor determine the extent of spread of certain cancers of the digestive and respiratory systems. EUS allows assessment of the cancer's depth of invasion and whether it has spread to adjacent lymph glands or nearby vital structures such as major blood vessels in a way that complements information from other staging tests, such as CT scans or PET-CT. EUS can be used to obtain needle biopsies of lesions to help diagnose cancer involvement and guide treatment.

Preparation for EUS

For EUS of the upper gastrointestinal tract, you should have nothing to eat or drink for 6 hours prior to the procedure. If you do have to take important medications during this fasting period, drink only small sips of water and have the medications as early as possible (5:30am for morning procedures). You will also have to read this information form and will be asked to discuss any questions about the test before confirming your consent to undergo this examination. For EUS of the rectum, your doctor will instruct you to either consume a colonic cleansing solution or to follow a clear liquid diet combined with laxatives or enemas prior to the examination. The procedure might have to be rescheduled if you do not follow the doctor's instructions carefully.

You should check with your doctor about medications you should stop (e.g. Blood thinning medications like fish oil, clopidogrel, warfarin, clexane, or other injectable blood thinners) and how to adjust your diabetic medications where necessary. If you have an allergy to latex, you need to inform your doctor ahead of time, but the endoscopy unit is latex free unit. If a cyst or fluid collection is to be drained or punctured, antibiotic therapy is indicated to prevent infection.

EUS procedure

You will have to remove any dentures, jewellery, glasses, or hearing aids. You will then be asked to lie on a bed and nursing staff will assist you into the correct position (lying on your left side). A mouth guard and nasal catheters delivering oxygen will be placed. After you are sedated, the echoendoscope is passed through your mouth into the stomach and duodenum. The whole procedure can take as little as 10 minutes or as long as an hour or more depending on how complicated the problem is.

A EUS examination of the lower gastrointestinal tract can often be procedure safely and comfortably with or without sedation if requested.

Post Procedure

Your condition will be monitored for several hours or even over night in the hospital depending on the estimated risk of any complications. Your throat may feel sore and dry and you may burp up any remaining air from your stomach. You may be drowsy or dizzy for a time after the test due to the sedation. After one hour or so you may be allowed to resume oral intake. If you plan to go home after the procedure, please arrange for someone to pick you up and take you home. Rest and ensure you drink plenty of fluids, contact your specialist, the endoscopy unit or the mater private emergency if you have any problems after you are discharged. You may not drive a motor vehicle or operate machinery for 24 hours after the sedation. Follow up will be arranged through your specialist or the referring doctor depending on the circumstances.

Risks

Endoscopy can result in complications. You may have a sore throat that lasts for up to 2 weeks, and there is a small chance of aspirating saliva during the procedure that may cause a chest infection in about 1% of patients. There is a small risk of oesophageal perforation and any chest pains or trouble breathing should be immediately reported. If you have a complicated problem it is not unusual to have a repeat EUS or imaging test. Other risk can include anaesthetic related problems, and very rarely, serious disability or even death due to heart, nerve, haemorrhage, or other organ damage. Perforation of the oesophagus, stomach or duodenum is a major complication and occurs very rarely. Unforeseen interventions such as surgery may be needed to treat some of these complications. If a needle biopsy is performed during the EUS examination, there is an increased possibility of pleading, pancreatitis, or infection. Overall this is a safe and common procedure and complications are quite rare.

If you have any questions about this information, discuss these with your specialist before you attend your procedure.

Contact Details

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For urgent enquiries during the weekend please call the Mater Switch on 07 3163 8111 and ask to speak with your specialist.