

Endoscopic Ultrasound (EUS)

Kathryn Thompson, MD

What is an EUS?

Endoscopic ultrasound (EUS) involves using an endoscope with ultrasound capabilities as a non-invasive method to diagnose or treat pancreas, gallbladder, bile duct, and/or digestive tract conditions. It is typically performed by an advanced endoscopist.

How do you prepare for an EUS?

- Ensure you do not eat or drink for after midnight the day of the procedure
- Talk to your doctor about the timing of taking your blood thinners before the procedure
- Prepare to possibly spend one or more nights in the hospital depending on the outcome of the procedure

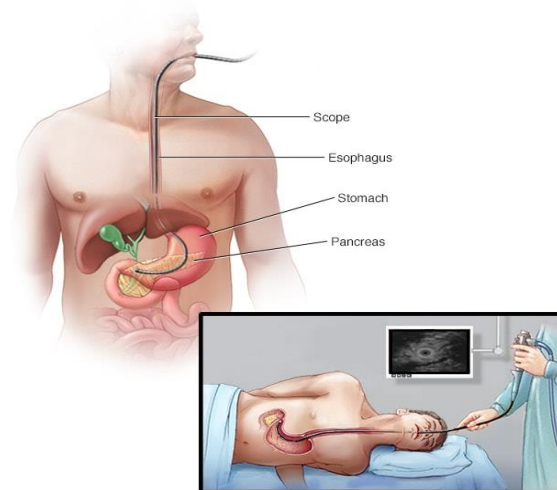


Figure 1. Image of a patient undergoing EUS

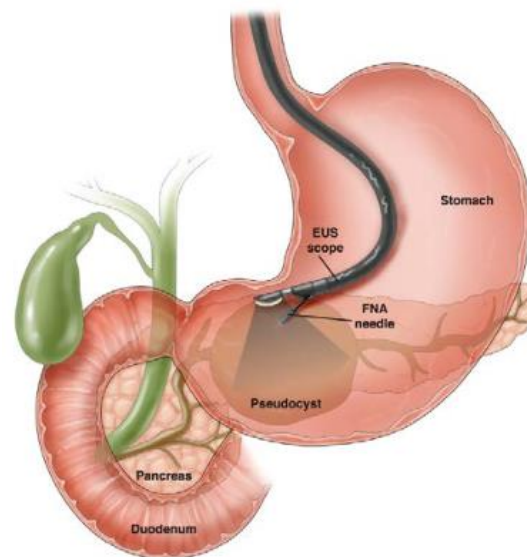


Figure 2. Enhanced view of EUS once the endoscope reaches the area of interest for the procedure

Why undergo EUS instead of other procedures?

- EUS can help **diagnose AND treat** conditions unlike traditional imaging modalities
- EUS is much **less invasive** than other procedures that may be required to diagnose and treat intra-abdominal conditions
- EUS **does not involve radiation**
- EUS **does not require going into a scanner** like traditional imaging modalities, which is helpful for patients that may have difficulty with claustrophobia

Indications for Endoscopic Ultrasound (EUS)

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Image
references:



Liver / Pancreas

- Assess and perform biopsies of liver or pancreatic masses that could be cancer
- Assess for inflammation of the pancreas, which is called pancreatitis
- Assess and drain fluid collections around the liver or pancreas

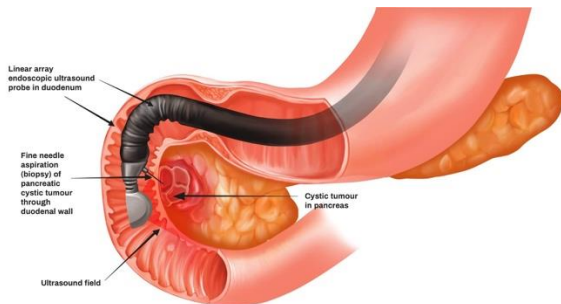


Figure 3. View of endoscope approaching the pancreas during EUS

Gallbladder / Bile duct

- Assess and perform biopsies of gallbladder/bile duct masses or narrowed areas that could be cancer
- Take pictures of bile ducts to determine if a blockage is present that requires stent placement to help bile drain
- Assess for gallstones to determine if a patient needs an additional procedure while under sedation to treat the gallstones, which is called an ERCP

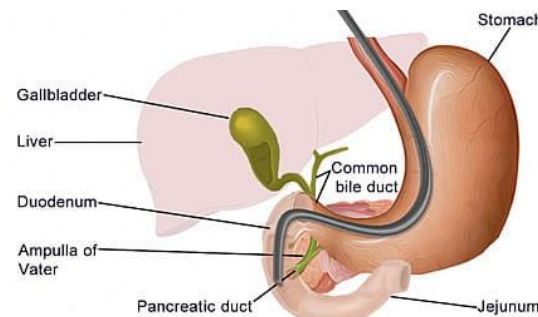


Figure 4. View of endoscope approaching the bile duct during EUS

Digestive Tract

- Assess and perform biopsies of masses in the digestive tract, such as the esophagus or stomach, that are both visible on the surface or underneath the surface of the digestive tract lining
- Assess and perform biopsies of lymph nodes along the digestive tract

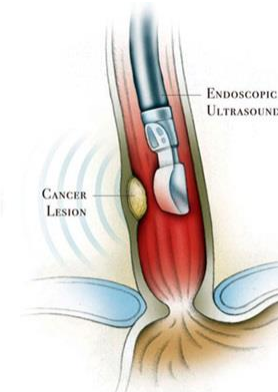


Figure 5. EUS-guided biopsy of esophageal tumor

Complications of EUS

- Infection
- Bleeding
- Rupture of biopsied or nearby organs, which is called perforation
- Inflammation of the pancreas, which is called pancreatitis
- Reaction to sedation or anesthesia