

# Endoscopic Ultrasound – Guided Cystgastrostomy/Cystenterostomy

## What is Endoscopic Ultrasound (EUS) - Guided Cystgastrostomy/ Cystenterostomy?

It is an extension of a specialised procedure using an endoscope (flexible scope with a light source and camera) with an internal ultrasound scanner called Endoscopic Ultrasound (EUS). The endoscope is passed through the mouth to the upper digestive tract, e.g. stomach or small bowel, to visualise the collection located outside the digestive tract. Under ultrasound guidance, the collection can then be connected with the stomach or small bowel to allow it to drain into the stomach (cystgastrostomy) or small intestine (cystenterostomy).



The procedure takes about 60 minutes on average, but may be longer if complicated. Sedation or general anaesthesia may be necessary for this procedure to ensure your comfort and safety.

## Why do I need this procedure/surgery?

EUS-guided drainage is usually performed for a large pancreatic collection that is causing significant symptoms to you. Such symptoms might be abdominal pain, fever, infection or bloating.



If the collection compresses the bile ducts (pipes carrying bile from the liver), it can lead to yellowing of your eyes and skin (jaundice). If the collection is pressing on your stomach, it can lead to gastric outlet obstruction with recurrent vomiting and difficulty eating/drinking.



## What are the preparations?

- You should not eat (or drink anything EXCEPT for plain water) for at least 6 hours before the procedure.
- You are allowed to drink plain water or take your usual medications (unless otherwise instructed) until 2 hours before the procedure. Your doctor may advise you to fast longer if you have certain medical conditions or for certain procedures.
- During fasting, you will be advised on withholding or modifying the dosage of your diabetic medications. To reduce the risk of bleeding, your doctor may advise you to stop consuming any blood thinners (sometimes up to two weeks) prior to the procedure/surgery.



- Your doctor may also advise replacing it with an alternative temporary treatment. Please continue to take all your other usual medications, unless otherwise instructed by your doctor.



You may be given antibiotics by your medical team to reduce risk of infection.

## **How is the procedure/surgery performed?**

It is usually carried out in the Endoscopy Centre or the operating theatre. Sedation or general anaesthesia may be necessary for this procedure to ensure your comfort and safety.



- **Procedural sedation (moderate sedation):**

You will be given a numbing throat spray and placed under moderate sedation. Moderate sedation, a drug-induced state of reduced consciousness, is used before and/or during the procedure to help ease discomfort, pain and anxiety. You will be given medicine through an intravenous line. Your heart rate, breathing and blood pressure will be closely watched throughout the procedure. While most will fall asleep during sedation, some people may be drowsy but have periods of awareness during the procedure. You should feel little or no pain. You may not remember the procedure at all or have a vague memory of it.

- **General Anaesthesia (GA):**

If the operation is performed under general anaesthesia, you will be provided with a general anaesthesia procedure information sheet prior to your surgery – please refer to it for further information.

When you feel comfortable, your doctor will pass the endoscope into the upper digestive tract (stomach or upper small bowel) to locate the collection. The collection is then drained internally into the stomach or upper small bowel using a stent (either a plastic or metal tube). X-rays may be needed to facilitate this procedure.

More than one session may be required to examine the cyst/collection and ensure the infected material completely drains away. This is usually performed over a longer period (several days to weeks) and the need for this depends on your overall clinical condition.



## **What are the risks and complications of the procedure/surgery?**

As with all surgical procedures, complications may arise during or after the surgery.

Some of the possible complications include, but are not limited to:

- Pain, redness or bruising at the cannula injection site (usually in the arm).
- Sore throat for the initial few hours, which usually improve over the next few days.

Less common but significant risks and complications:

- Perforation (tear or hole in the wall of the food pipe (oesophagus)/ stomach/ gut (intestines): up to 4%.
- Bleeding: 1% to 10%.
- Infection: 6% (antibiotics may be given to reduce this risk).
- Collection recurrence: 12%.
- Inability to complete the procedure: 10%.
- Stent-related complications: incorrect positioning of stent, migration, blockage.
- Heart attack, chest infection or stroke (admission and emergency treatment may be necessary).
- Complications related to sedation/ GA given at the time of the procedure.

Moderate sedation is generally safe. The risks are rare and some possible side effects are: decreased rate of breathing, changes in heart rate and blood pressure, headache, nausea and vomiting, and inhalation of stomach contents into the lungs.

If significant complications occur, you may require a prolonged hospital stay, and/or additional procedures/surgery. In rare cases, long-term disability or even death can result from these complications.

## **What would I expect after the procedure/ surgery?**

After the procedure, you will be admitted to the ambulatory ward (outpatient) or transferred back to the inpatient ward. You may experience some cramps or bloating because of air entering the bowel during the procedure. Medications may be given to treat these symptoms. Your medical team will inform you when you can resume eating and drinking, and also the examination findings and the need for further sessions or treatment once the results are available.

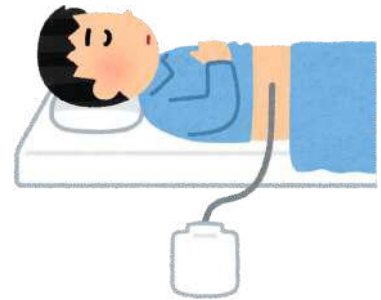


## What are the alternative options?

Other than the endoscopic route, pancreatic collections can be drained by surgical or radiological methods. The radiological method is usually considered in the earlier phase of this condition (< 4 weeks) and involves placing a drain through the skin with the assistance of ultrasound or computed tomography (CT).



Surgical drainage is usually considered only when your condition has stabilised after several weeks, and is more invasive compared to the other methods. Please discuss these with your doctors if you wish to find out more.



## What will happen if I do not undergo the procedure/ surgery?

Your underlying condition may worsen without proper treatment. This may affect your health and quality of life, or even lead to life-threatening situations. You may experience persistent vomiting, weight loss, jaundice, worsening abdominal pain, fever, infection and bleeding if this condition worsens.



**DISCLAIMER:** This information sheet provides common risks of surgery/ procedure. This list is NOT meant to be and CANNOT be exhaustive.

Contributed by Medicine & Nursing

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