

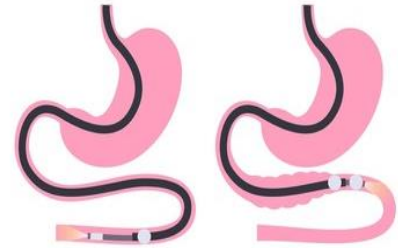


Procedure Information

Balloon-Assisted Enteroscopy

Introduction

Balloon Enteroscopy (single-balloon and double-balloon types) is an endoscope approximately 2 meters long, encased in an approximate 145 cm long plastic overtube, which is inserted through the mouth or anus. By inflating and deflating the balloons, alternating pushing and pulling maneuvers, allowing the 6 meters of the small intestine to be threaded into the overtube. This allows your doctor to have direct vision of the small intestine, checking for bleeding or lesions such as tumors, ulcers, or polyps. Your doctor can take biopsies for pathological examination and may perform polypectomy and therapeutic hemostasis when necessary.



Source:
<https://www.shutterstock.com/image-vector/double-balloon-enteroscopy-minimally-invasive-260nw-2355424519.jpg>

Why is Balloon Enteroscopy performed?

1. Gastrointestinal bleeding or narrowing.
2. Suspected Crohn's disease of the small intestine (one type of inflammatory bowel disease), small intestine ulcers, protein-losing enteropathy, small intestine tumors or polyps, etc.
3. Removal of foreign body that causes intestinal obstruction.

Expected Outcomes

The expected outcomes of this procedure are determined by the different indications. It allows the doctor to thoroughly examine the small intestine and collect biopsies for pathological examination when necessary.

Procedures

Antegrade approach - Inserted Endoscope from the mouth

1. The blood pressure, pulse rate and oxygen saturation are closely monitored during the procedure.
2. You have to lie on your left side and wear a small plastic mouthguard.
3. Throat is sprayed with a local anaesthetic agent to reduce discomfort. Intravenous sedation, monitored anaesthetic care or general anaesthesia may be administered if necessary.
4. The enteroscope is inserted through the mouth into the small intestine. It is normal if you feel mild abdominal distension and urging of the bowel during the procedure.
5. Biopsies may be taken for further examinations when necessary.
6. The procedure usually takes about 60 minutes.

Retrograde approach - Inserted Enteroscope from the anus

1. The blood pressure, pulse rate and oxygen saturation are closely monitored during the procedure.
2. You have to lie on your left side with both knees bending towards your chest.
3. Doctor may prescribe sedation or anaesthetic medication according to your condition. Intravenous sedation, monitored anaesthetic care or general anaesthesia may be administered if necessary.
4. The enteroscope is inserted through the anus into the colon and small intestine. It is normal if you feel mild abdominal distension and urging of the bowel during the procedure.
5. Air is injected through the enteroscope to expand the intestine, making it easier into the small intestine. It allows the doctor to observe the intestinal walls. It is normal for the patient to feel bloated or to have the urge to defecate.
6. Biopsies may be taken for further examinations when necessary.
7. The procedure usually takes about 60 minutes.

Possible Risks and Complications

Before examination

- Laxative for bowel preparation may cause nausea, vomiting, abdominal pain or distension, etc.

During examination

1. Soreness of throat / Bloating due to air in the stomach.
2. Respiratory complication: e.g. aspiration pneumonia.
3. Haemorrhage (less than 1:1000), perforation (0.3% - 1.5%) and pancreatitis (1:333).
If therapeutic procedures are required (e.g. polypectomy, endoscopic haemostasis etc.), the risks are in general slightly higher.
4. Injection of sedation may cause hypotension or respiratory difficulties. For severe cases, anaphylaxis and anaphylactic shock may be developed. The probability of developing such symptoms is higher for the elderly.

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all procedures are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or leakage, further operations may be required.

After examination

- May experience abdominal pain or distension, etc. It will improve about several hours after examination.
- Bleeding may occur after polypectomy, which is generally mild and temporary, and will stop on its own.

Pre-procedure Preparations

1. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the procedure.
2. Please inform the doctor if you are or might be pregnant.
3. Please inform the doctor and nurse all your past medical history, previous surgical operations and any complication with drug or anaesthesia.
4. Please inform the doctor if you currently take any drugs or medications particularly for diabetes or that could affect blood clotting, for example:
 - Antiplatelet drugs, e.g. Aspirin, Plavix, Persantin, Pletaal
 - Blood thinners, e.g. Warfarin (anticoagulants), direct oral Anticoagulants, e.g. Pradaxa
 - Insulin
 - Diabetic drugs/medications
 - Iron supplements
 - Any Chinese medicines or herbal remedies
5. Presence of stool inside the bowel will affect the view of the bowel wall. Therefore, the bowel must be cleaned thoroughly before the procedure. Bowel preparation can be carried out at home or in the hospital. Please take the laxative as prescribed by your doctor.
6. **Diet arrangement:**
 - i) Two days before enteroscopy
You can only consume low residue diet (avoid food which is rich in fibre, e.g. vegetables, fruit, cereal etc.).
 - ii) The day before enteroscopy
Only a fluid diet is allowed, such as clear meat soup and thin congee. Please do not consume too much dairy products.
 - iii) On the day of enteroscopy
No food or drink six hours before the enteroscopy.
7. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
8. Please empty your bowel and bladder before the procedure.

Post-procedure Instructions

1. After the enteroscopy, you should stay in bed until the sedative effect of the drug has completely worn off. It usually takes 3 – 4 hours.
2. May experience abdominal pain or distension, etc. It will improve about several hours after examination
3. As the doctor will pump air into the colon to enhance the visualization, it is normal to pass gases after the enteroscopy.

Diet

A normal diet may be resumed as instructed after recovery from anaesthesia.

Advice on Discharge

1. If you are discharged on the same day of the procedure, be reminded not to drive, operate machinery or sign legal documents for the rest of the day.
2. Adequate rest should be taken in the first 24 – 48 hours.
3. If there is severe abdominal pain or bleeding occurs, medical personnel must be consulted immediately.
4. Any follow-up consultations should be attended as scheduled.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification

