

# Laparoscopic Surgery in Gastrointestinal Disease

## (1) What is laparoscopic (key-hole surgery)?

Laparoscopic surgery (key-hole Surgery) is a "minimally invasive" procedures commonly used to treat diseases of the gastrointestinal tract.

Unlike traditional surgery on the colon or other parts of the intestines where a long incision down the center of the abdomen is required, laparoscopic surgery requires only small "keyhole" incisions in the abdomen.

## (2) How it is performed?

During laparoscopy, an incision will be made below your belly button. A small tube called a cannula will then be inserted. The cannula is used to inflate your abdomen with carbon dioxide gas. This gas allows your doctor to see your abdominal organs more clearly, as this elevates the abdominal wall above the internal organs to create a working and viewing space once the abdomen is inflated, the laparoscope will be inserted through the incision. The camera attached to the laparoscope will display the images on a screen, allowing your doctor to see your organs in real time.

## (3) What are advantages over Conventional open surgery?

- Reduced hemorrhaging**, which reduces the chance of needing a blood transfusion.
- Smaller incision**, which reduces pain and **shortens recovery time**, as well as resulting in **less post-operative scarring**.
- Less pain**, leading to less pain medication needed.
- Although procedure times are usually slightly longer, **hospital stay is less**, and often with a same day discharge which leads to a **faster return to everyday living**.
- Reduced exposure of internal organs to possible external contaminants thereby **reduced risk of acquiring infections**.

Conceptually, the laparoscopic approach is intended to **minimize post-operative pain** and **speed up recovery** times, while maintaining an **enhanced visual field for surgeons**. Due to improved patient outcomes, in the last two decades, laparoscopic surgery has been adopted by various surgical sub-specialties including gastrointestinal

surgery (including bariatric procedures for morbid obesity), gynecologic surgery and urology.

Based on numerous prospective randomized controlled trials, the approach has proven to be beneficial in reducing post-operative morbidities such as **wound infections** and **Incisional hernias** (especially in morbidly obese patients), and is now deemed safe when applied to surgery for cancers such as cancer of colon, Cancer of Liver and Pancreas.

#### **(4) What are risks of surgery?**

Risk remains same as in open conventional surgery, a part from trocar injury during insufflation of gas.

#### **(5) What are the surgeries which are feasible for this technique?**

Almost now all surgeries pertaining to Gastro-Intestinal tract including cancers of Gastro-Intestinal Tract are being done routinely by using Laparoscopic (Key hole) technique.

Listed among few are:

##### **Upper Gastro-Intestinal Tract:**

- Cancer and non cancer diseases of Esophagus (Food pipe)
- FundoPLICATION ( for Acid reflux disease)
- Cancer of Stomach
- Removal of Gall bladder for Gall stone and Gall bladder cancer
- Removal of Spleen (Splenectomy)
- Cancers / Cysts of LIVER (hepatectomy) and PANCREAS (Whipples procedure)
- Bariatric Surgery (weight losing surgeries)

##### **Mid and Lower Gastro-Intestinal Tract:**

- Cancer and Non cancer related problem of Small Intestine
- Cancers of Large Intestine (colon) – Partial / Total Colectomy
- Removal of Appendix (Appendectomy)
- Laparoscopic surgery for Rectal prolapse

**Miscellaneous:** Surgeries for Hernias – Incisional (post operative), Inguinal (groin) hernias, Diagnostic laparoscopy.

## **(6) How Long Does It Take to Recover from Laparoscopy?**

When the surgery is over, patients needed observation for several hours before they released from the hospital.

Vitals signs, such as breathing and heart rate, will be monitored closely.

The timing of discharge will vary. It depends on:

- Patient's overall physical condition
- The type of anesthesia used
- Patient's body's reaction to the surgery

In some cases, patient may have to remain in the hospital overnight.

A family member or friend will need to drive the patient home if one has received general anesthesia. The effects of general anesthesia usually take several hours to wear off, so it can be unsafe to drive after the procedure.

It's also common to have shoulder pain after this procedure. The pain is usually a result of the carbon dioxide gas. The gas can irritate your diaphragm, which shares nerves with shoulder. It may also cause some bloating. The discomfort should go away within a couple of days.

Patient can usually resume all normal activities within a week.

Patient need to attend a follow-up appointment with his doctor about one weeks after laparoscopic surgery.

## **(7) What is Day care Surgery?**

These are types of surgeries which are performed by laparoscopy mean and patient get discharged on same day of surgery.

## **(8) Presently what surgeries can be done as day care surgeries?**

Day care surgeries are listed as follows:

- Laparoscopic removal of Gall stone

- Laparoscopic removal of Appendix
- Laparoscopic anti reflux surgery for Acid reflux (GERD)
- Laparoscopic repair of Hernias – Abdominal / Inguinal (groin)
- Diagnostic Laparoscopic – for biopsy / removal of small cysts (Liver/Bowel etc.)



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