

Laparoscopy

Laparoscopy (or peritoneoscopy) is a medical procedure used to examine the interior of the abdominal or pelvic cavities for the diagnosis or treatment (or both) of a number of different diseases and conditions. The advantage of laparoscopy is that only a small incision is required; this is why laparoscopy is also known as 'keyhole surgery'.

Laparoscopy examines the interior of the abdominal or pelvic cavity using a slender tube (laparoscope) inserted through a small incision. The laparoscope contains fibre-optic camera heads or surgical heads (or both).

The laparoscope transmits images to a video screen in the operating room. Prior to the advent of laparoscopy, doctors had to make large openings and cut through layers of tissue in order to examine internal organs. Laparoscopy greatly reduces the patient's recovery time.

Problems diagnosed or treated by laparoscopy

Some of the many problems that may be diagnosed or treated by laparoscopy include:

- **Female infertility** – laparoscopy allows doctors to check for problems such as scar tissue, endometriosis and fibroid tumours, and to see if the uterus, fallopian tubes and ovaries are abnormal in any way.
- **Other problems of the female reproductive system** – including pelvic floor and vaginal prolapse. Some types of hysterectomy can also be performed using laparoscopic surgery.
- **Ectopic pregnancy** - the embryo lodges and grows within the fallopian tube. The developing embryo will eventually rupture the fallopian tube unless it is surgically removed.
- **Adhesions** – the presence of scar tissue within the pelvic cavity.
- **Diseases of the urinary system** – laparoscopy can be used to investigate or treat (or both) cancerous and non-cancerous conditions of the kidney, blockages of the ureter, bladder disease and incontinence.
- **Cancers of the internal organs** – cancers of the liver and pancreas can be diagnosed using laparoscopy and laparoscopic surgery can be performed for some colorectal cancers.
- **Ascites** – or fluid inside the abdominal cavity; laparoscopy can help determine the cause.
- **Other problems** – diseased organs (such as the gallbladder and appendix) can be removed with laparoscopy, and hernias can be repaired.

Medical issues to consider

Before the procedure, you need to discuss a range of issues with your doctor or surgeon including:

- The likely outcome of surgery
- The possible risks and complications of laparoscopy
- Medical history, including allergic reactions to any drugs or prior problems with anaesthesia.

Operation procedure

Laparoscopy can be performed under local or general anaesthetic, depending on the nature of the procedure. After the incision is made (usually next to the navel), the laparoscope is inserted into the abdominal cavity. Either carbon dioxide or nitrous oxide gas is then passed into the cavity to separate the abdominal wall from the underlying organs. This makes examination of the internal organs easier.

Anywhere between one and three more incisions are made to allow access to other surgical instruments, for example, a laser. Once a diagnosis is made or the problem is removed (or both), the instruments are taken out, the gas allowed to escape and the incisions sewn shut. The stitches may need to be removed by the doctor at a later stage or else they will dissolve by themselves.

Immediately after the laparoscopy

After the procedure, you can expect:

- Soreness around the incision site. You may need painkilling medication
- Shoulder pain, caused by the gas pumped into the abdominal cavity
- A sensation of abdominal bloating
- Nausea
- Abdominal cramps
- Constipation
- For pelvic procedures only, light bleeding or discharge from the vagina
- Patients are advised not to drive home following laparoscopy due to the medication given prior to the procedure – make sure you have a relative or friend to take you home from hospital or call a taxi
- Most symptoms of laparoscopic surgery resolve within one or two days – if not, see your doctor.

Possible complications of laparoscopy

All surgery carries some degree of risk. Some of the possible complications following laparoscopy include:

- Cardiac arrhythmias
- Puncture of internal organs or the body's main artery (aorta)
- Bleeding into the abdominal cavity
- Blood clots in the veins of the legs
- Allergic reactions to the anaesthetic
- Ascites – temporary fluid leakage from surgical wounds
- The necessity to switch from laparoscopic to open surgery in the case of unforeseen complications.

Taking care of yourself at home

Be guided by your doctor but general suggestions include:

- Most patients are able to resume normal activities within a few days to one week.
- Don't engage in any strenuous physical activity for about a week or so.
- Remove your bandages the following day. Keep wounds dry.
- Following a pelvic laparoscopy, use sanitary napkins instead of tampons to cope with any vaginal bleeding or discharge.
- If you experience high fever, chills, vomiting, difficulties urinating, increasing redness at the incision site or a worsening of pain, contact your doctor immediately.

Long-term outlook

The small incisions mean that recovery time is quite fast. Most patients can return to their normal activities within one week of surgery. Postoperative pain resolves within a few days and the scarring is minimal.

Laparotomy treatment

The surgical alternative to laparoscopy is open surgery (laparotomy). Instead of a few small incisions, the abdomen is opened with one large cut. The main disadvantages of laparotomy are the extended hospital stay (up to one week or so) and the long recovery time. A person who undergoes open surgery can expect at least six weeks of convalescence.

Compared to laparoscopy, laparotomy has increased risks of infection and adhesions. The resulting scars from open surgery are also much more extensive.

Where to get help

- Your doctor
- Your surgeon

Things to remember

- Laparoscopy is a medical procedure used to examine the interior of the abdominal or pelvic cavities for the diagnosis or treatment (or both) of a number of different diseases and conditions.
- Laparoscopy examines the interior of the abdominal or pelvic cavity using a slender tube (laparoscope) inserted through a small incision.
- The small incisions mean that recovery time is relatively rapid.

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