PROCEDURE

Large bowel resection

Large bowel resection is surgery to remove part or all of the colon.

PURPOSE
Remove diseased bowel and restore or redirect bowel flow

PROCEDURE TYPE
Therapeutic surgery, performed minimally invasively or through open surgery

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General

HOW LONG IT TAKES
About two to four hours; complex surgery may take longer

PREPARATION
Fasting; bowel preparation and medicine changes when instructed

RECOVERY
Several hospital days; no driving until safe and off opioids

MAIN RISKS
Bowel leak, infection, bleeding, blood clots

RESULTS
Operative findings immediately; pathology commonly within one to two weeks

Overview

A large bowel resection is surgery to remove part or all of the colon. The colon is the main part of the large bowel. It absorbs water and turns digested food into stool.

Removing part of the colon is called a partial colectomy. Removing all of it is called a total colectomy. The exact name may describe the area removed, such as a right or left colectomy.

After removing the affected section, the surgeon may join the healthy ends together. This join is called an anastomosis. If joining the bowel is not safe, the surgeon may bring an end of bowel through an opening in the abdomen. This is a stoma. Stool then passes into a bag worn outside the body.

A stoma may be temporary or permanent. Your surgeon should explain the likelihood of needing one before planned surgery, although unexpected findings can sometimes change the

plan.

The operation may be performed through several small cuts using laparoscopic or robotic instruments. This is called minimally invasive surgery. Open surgery uses one longer abdominal cut. The choice reflects the condition being treated, previous operations, your general health and what the surgeon finds.

Why the procedure is performed

Large bowel resection may be recommended when removing the affected bowel offers better control than medicines, endoscopy or other treatments.

Reasons include:

Some operations are planned. Others are urgent because the bowel is blocked, leaking or severely damaged.

- Colon cancer or a polyp that cannot be safely removed during colonoscopy
- Complications of diverticular disease, such as narrowing, a fistula or repeated inflammation
- Crohn's disease or ulcerative colitis that is not controlled by other treatment
- A blocked, twisted, perforated or badly injured colon
- Loss of blood supply to part of the colon
- Severe bleeding that cannot be controlled another way
- Certain inherited conditions that create a high risk of colon cancer

Who should and should not have it

You may be offered this operation when the expected benefit of removing the affected bowel is greater than the risks of surgery. The decision should consider your diagnosis, test results, symptoms, overall health and personal priorities.

It is not the right first treatment for every bowel condition. Surgery may be avoided when medicines, colonoscopy, drainage or careful monitoring can provide effective treatment with less risk.

A planned operation may be delayed if you have a serious uncontrolled medical problem, significant dehydration, poor nutrition or an infection that should be treated first. Blood-thinning medicines may also need a specific management plan. These issues do not

always prevent surgery, but they can affect its timing and safety.

If you have major heart, lung or other health problems, the anaesthesia and surgical teams will assess whether you can safely undergo the operation. During an emergency, delaying surgery may carry more risk than proceeding.

Before consenting, ask how much bowel is expected to be removed, whether a stoma might be needed and whether the planned approach is minimally invasive or open.

How to prepare

Your treating facility's own instructions take priority because preparation differs between operations and hospitals.

You will usually need to stop eating before surgery. You may be allowed clear liquids until a stated time. Follow the exact fasting times you receive; eating or drinking outside them can delay the operation.

Some people are asked to empty the bowel using laxative drinks. This is called bowel preparation. Oral antibiotics may also be prescribed. Not every large bowel operation requires these steps.

Give the surgical team a complete list of your medicines, supplements and allergies. Ask specifically about blood thinners like warfarin or apixaban , diabetes medicines and anti-inflammatory pain medicines. Do not stop a prescribed medicine unless your team tells you to.

You may have blood tests, heart or lung checks and imaging before surgery. If a stoma is possible, a specialist stoma nurse may mark a suitable position on your abdomen and explain how a stoma works.

Arrange help at home and transport after discharge. Bring practical clothing that does not press on your incision.

What happens during the procedure

You will receive a general anaesthetic, so you will be unconscious and will not feel the operation. Monitoring equipment tracks your breathing, heart rate and blood pressure.

The surgeon reaches the bowel through small incisions or an open abdominal incision. They identify the affected section, separate it from nearby tissues and seal the blood vessels supplying it. The diseased bowel is then removed.

If possible, the remaining bowel ends are joined. The surgeon may instead create a temporary stoma to protect the join while it heals. A permanent stoma may be required if the ends cannot be safely joined or if too much lower bowel has been removed.

Removed tissue is usually sent to a laboratory. A pathologist examines it under a microscope, including checking for cancer when relevant.

The incisions are closed with stitches, staples or surgical glue. You are then taken to a recovery area as the anaesthetic wears off.

Recovery and what to expect afterward

Pain and tenderness around the incisions are expected. You will receive pain relief, which may initially be given through a vein, an epidural catheter or a patient-controlled pump. Tell the hospital team if pain prevents you from breathing deeply, sleeping or moving.

Eating usually restarts gradually. You may begin with fluids and move toward solid food as your bowel starts working. Temporary bloating, reduced appetite and changes in stool frequency are common. If you have a stoma, a stoma nurse will help you learn to empty and change the bag.

Gentle movement begins soon after surgery. Walking and breathing exercises lower the risk of blood clots and chest problems. Avoid heavy lifting and strenuous activity until your surgeon says the abdominal wall has healed sufficiently.

Do not drive while taking opioid pain medicine or if pain limits your movement. You need to be able to wear a seat belt, turn comfortably and perform an emergency stop. Follow your insurer's requirements and your surgical team's advice.

Returning to work may take several weeks. Desk-based work is often possible sooner than heavy physical work. Recovery can take longer after open surgery, emergency surgery or complications.

Risks and possible complications

Large bowel resection is major surgery. Possible complications include:

Your personal risk is affected by why surgery is needed, whether it is urgent, the type of operation and your general health.

- Leakage from the bowel join, which may require antibiotics like amoxicillin or doxycycline , drainage or another operation

- Bleeding or infection in the abdomen, wound or urinary tract
- Blood clots in the legs or lungs
- Temporary slowing of the bowel, causing bloating, nausea or vomiting
- Injury to nearby organs, nerves, blood vessels or the ureter carrying urine
- Scar tissue that later causes bowel obstruction
- Incisional hernia, where tissue pushes through a weakened abdominal wall
- Stoma problems, such as skin irritation, narrowing or reduced blood supply
- Reactions or breathing problems related to anaesthesia

Results and follow up

The surgeon can usually explain what was removed and whether a stoma was created soon after the operation.

Laboratory examination of the removed bowel commonly takes several days to about two weeks. If cancer is found or was already known, the report may describe its type, depth, margins and whether nearby lymph nodes contain cancer cells. These findings help guide decisions about further treatment.

Routine follow-up checks your wound, eating, bowel function, pain control and recovery. Staples or non-dissolving stitches may need removal. If you have a stoma, follow-up also covers skin care, supplies and whether reversal may be possible.

Long-term bowel habits can differ from before surgery. They often settle with time, but persistent diarrhoea, constipation or urgency should be discussed at routine follow-up.

Alternatives

The alternatives depend on why surgery has been offered.

Some polyps and very early cancers can be removed during colonoscopy or through advanced endoscopic procedures. This avoids abdominal surgery but is suitable only when the abnormal tissue can be removed completely and safely.

Medicines may control inflammatory bowel disease or uncomplicated diverticular inflammation. They avoid surgical risks but may not correct a fixed narrowing, fistula, perforation or ongoing damage.

An abscess may sometimes be drained through the skin using imaging guidance. This can control infection without immediate bowel surgery, although a later resection may still be recommended.

A stent placed during colonoscopy can sometimes open a cancer-related blockage. It may provide temporary relief before surgery or help when surgery is not appropriate, but it does not remove the cancer.

For selected slow-growing or advanced cancers, monitoring, chemotherapy or comfort-focused treatment may be considered. These approaches avoid or postpone surgery but do not remove the affected bowel. Ask what each option is expected to achieve in your situation.

When to call your healthcare team

For routine questions about diet, bowel changes, wound care, stoma supplies or your return to work, contact the team during normal hours or discuss them at follow-up.

Seek urgent same-day advice for:

Call emergency services for severe trouble breathing, chest pain, fainting, uncontrolled bleeding or sudden severe abdominal pain. These symptoms should not wait for a routine appointment.

- Increasing abdominal pain or swelling
- Repeated vomiting or inability to keep fluids down
- Fever, chills or feeling increasingly unwell
- A wound that becomes red, hot, more painful or starts draining pus
- New bleeding from the rectum, wound or stoma
- No stoma output together with pain, swelling or vomiting
- Persistent watery diarrhoea or signs of dehydration

Common questions

Will I be asleep?

Yes. Large bowel resection is performed under general anaesthesia, so you will be unconscious during the operation.

How painful is it?

Pain is expected, especially when moving or coughing, but it should be treated. Minimally invasive surgery often causes less incision pain than open surgery. Tell your team if the planned pain relief is not working.

Can I drive home?

No. You will remain in hospital for several days and must arrange transport after discharge. Do not drive until you are off impairing pain medicine and can control the car safely.

Will I need a stoma bag?

Not everyone does. A stoma may be needed temporarily to protect a bowel join or permanently when a safe join is not possible. Ask your surgeon about your individual likelihood before surgery.

When will I know the results?

Your surgeon can discuss the operation soon afterward. The full laboratory report usually takes several days to about two weeks.

When will my bowel movements return to normal?

The bowel may take several days to restart. Frequency and consistency can remain different for weeks or longer, particularly when a large section was removed.

Sources

- MedlinePlus Medical Encyclopedia. Large bowel resection
- American College of Surgeons. Colectomy: Surgical Removal of the Colon , patient education
- Mayo Clinic. Colectomy , Tests and Procedures
- Gustafsson UO, Scott MJ, Hubner M, et al. Guidelines for Perioperative Care in Elective Colorectal Surgery: Enhanced Recovery After Surgery Society Recommendations: 2018 . World Journal of Surgery. 2019;43:659-695
- National Institute for Health and Care Excellence. Colorectal cancer . NICE guideline NG151
- Vogel JD, Felder SI, Bhama AR, et al. The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Management of Colon Cancer . Diseases of the Colon & Rectum. 2022;65(2):148-177