PROCEDURE

Total proctocolectomy with ileostomy

Surgery that removes the colon and rectum and creates a permanent ileostomy.

PURPOSE
Remove diseased bowel and divert waste through a permanent stoma

PROCEDURE TYPE
Therapeutic surgery, open or minimally invasive

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General

HOW LONG IT TAKES
About 3-6 hours

PREPARATION
Fasting, medication review, possible bowel preparation, stoma marking

RECOVERY
Several hospital days; no driving while using opioid pain medicine

MAIN RISKS
Bleeding, infection, bowel obstruction, dehydration

RESULTS
Surgical findings immediately; tissue pathology within several days

Overview

A total proctocolectomy with ileostomy is major surgery to remove the entire colon, also called the large intestine, and the rectum. The end of the small intestine, called the ileum, is brought through an opening in your abdomen. This opening is an ileostomy, or stoma.

Bowel waste leaves through the stoma and collects in a pouch worn on your abdomen. The stoma has no muscle to control when waste or gas comes out. An ileostomy created with this operation is usually permanent.

Depending on the disease and the planned operation, the anal canal may also be removed and the opening between the buttocks closed. Ask your surgeon exactly which structures will be removed.

Why the procedure is performed

The purpose is to remove bowel that is severely diseased, has a high cancer risk, or contains cancer that cannot be treated adequately with a smaller operation.

Reasons may include:

The operation removes the colon and rectum, so ulcerative colitis cannot return in those organs. It does not cure Crohn's disease, which can affect other parts of the digestive tract.

- Ulcerative colitis that does not respond to medicine or causes serious complications
- Crohn's disease affecting much of the colon and rectum
- Colon or rectal cancer requiring extensive bowel removal
- Familial adenomatous polyposis or another inherited condition causing many precancerous polyps
- Severe bleeding, perforation, or inflammation requiring urgent surgery

Who should and should not have it

This surgery may be appropriate when removing the colon and rectum offers better control of disease or cancer than medicine or a smaller operation. Your general health, previous surgery, treatment goals, continence, and ability to manage an ileostomy all matter.

It may be avoided or delayed when:

Some people may instead qualify for an internal ileal pouch, often called a J-pouch. This is not suitable for everyone, particularly some people with Crohn's disease, poor anal sphincter function, or certain cancers.

In an emergency, there may not be time to correct every health problem before surgery. The team will balance the immediate danger against the risks of operating.

- A less extensive treatment can reasonably meet your goals
- Severe malnutrition, dehydration, or infection should be treated first
- Heart, lung, or other medical problems make elective surgery unusually unsafe
- Cancer testing shows that a different treatment plan should come first
- You have not had enough information or support to consent to a permanent stoma

How to prepare

Your treating facility's own instructions take priority because preparation differs by surgical plan and medical history.

You will usually have blood tests and may have imaging, heart testing, or an anaesthesia assessment. Tell the team about all prescription medicines, non-prescription medicines, supplements, allergies, and previous reactions to anaesthesia.

Blood thinners and diabetes medicines often need special planning. Do not stop or change them unless the surgical team tells you exactly what to do.

You may be asked to drink a bowel-cleansing solution and take antibiotics like amoxicillin or doxycycline before surgery. Some operations do not require full bowel preparation. Follow the instructions you receive about eating, drinking, and fasting.

A stoma nurse will usually mark the best position for the ileostomy while you are sitting, standing, and lying down. The position should avoid scars, skin folds, and your belt line when possible. The nurse can also show you pouches and explain everyday stoma care.

Arrange help at home and transport after discharge. If you smoke, stopping before surgery can support wound and lung healing.

What happens during the procedure

You receive general anaesthesia, so you are unconscious and do not feel the operation.

The surgeon may use one long abdominal incision or several smaller incisions with laparoscopic or robotic instruments. Sometimes minimally invasive surgery must be changed to an open operation for safety.

The surgeon separates and removes the colon and rectum. Tissue may also be removed around a cancer. The anal canal may be removed, and the opening between the buttocks may be closed with stitches.

The surgeon brings the end of the ileum through the marked opening in your abdomen. It is turned back on itself and stitched to the skin to form a moist, pink or red stoma. A pouch is placed over it.

You may temporarily have a urinary catheter, intravenous lines, a drain, or a tube through your nose. Removed tissue is sent to a laboratory for examination.

Recovery and what to expect afterward

Pain: Abdominal and pelvic soreness is expected. If the anus is removed, sitting may be uncomfortable while the wound heals. Pain relief may include tablets, intravenous medicine, or regional anaesthesia. Pain should gradually improve.

Eating: You will usually begin with fluids and progress to food as your bowel starts working. Ileostomy output is often liquid at first and may thicken over time. You will need guidance about fluids, salt, chewing food well, and introducing foods gradually.

Activity: Early walking lowers the risk of blood clots and chest problems. Avoid heavy lifting until your surgeon confirms that your abdominal wall has healed. A stoma nurse will teach you to empty and change the pouch and protect the surrounding skin.

Driving: Do not drive while taking opioid pain medicine or if pain limits your ability to turn, brake firmly, or react quickly. Follow your surgeon's and insurer's requirements.

Work: Returning to work may take several weeks and can take longer after open surgery, cancer treatment, complications, or physically demanding work. Your team can help plan a gradual return.

Hospital recovery usually lasts several days. Full recovery takes longer. Fatigue, changing appetite, and adjustment to the stoma are common during the early weeks.

Risks and possible complications

Possible early complications include bleeding, infection, blood clots, chest problems, injury to nearby organs, and reactions to anaesthesia.

The bowel may be slow to restart, called an ileus. Scar tissue can later cause a bowel obstruction. Warning signs include cramping, vomiting, abdominal swelling, and little or no stoma output.

Ileostomy-related problems include skin irritation, leakage, narrowing, retraction below skin level, or prolapse, when extra bowel projects outward. A hernia can develop around the stoma.

Because ileostomy output contains water and salts, high output can cause dehydration or changes in body salts. Kidney problems can follow if fluid losses are not replaced.

Pelvic surgery can affect bladder or sexual function if nearby nerves are disturbed. It may also reduce fertility. If future pregnancy or fertility preservation matters to you, discuss this before elective surgery.

The wound where the anus was removed can be slow to heal. Some people also feel pressure or the urge to pass stool from the removed rectum. This is sometimes called phantom rectum sensation.

Results and follow up

Your surgeon can explain what was found and how the operation went soon afterward. Laboratory examination of the removed tissue usually takes several days. Cancer results may include the tumor type, surgical margins, and whether lymph nodes contain cancer cells.

Follow-up normally includes appointments with your surgeon and stoma nurse. They will check wound healing, hydration, nutrition, stoma function, and pouch fit.

Further care is based on why you had surgery. Cancer may require oncology review. Crohn's disease may still require monitoring or medicine because it can affect the remaining digestive tract. People with inherited polyposis conditions may need screening of other organs.

Routine questions about pouching, diet, work, exercise, travel, or body image can be discussed at planned appointments or with your stoma nurse.

Alternatives

The realistic alternatives depend on the condition being treated.

Medical treatment for ulcerative colitis or Crohn's disease can avoid or delay surgery. It preserves the bowel but requires ongoing monitoring, can cause side effects, and may not control severe disease or remove cancer risk.

A subtotal colectomy removes the colon but leaves the rectum. It may be quicker in an emergency or used as the first stage of treatment. However, the remaining rectum can continue to cause symptoms, require cancer surveillance, or need later removal.

An ileal pouch-anal anastomosis, or J-pouch, uses small bowel to create an internal pouch joined to the anus. It avoids a permanent external pouch but often requires more than one operation. Bowel movements remain frequent, and pouch inflammation, leakage, reduced fertility, or later pouch failure can occur.

A segmental bowel resection removes only the affected section. It preserves more bowel but is not suitable when disease or polyps involve most of the colon and rectum.

For some cancers, chemotherapy, radiation therapy, local removal, or a smaller resection may be options. These approaches may preserve more bowel but may not provide adequate treatment for extensive or advanced disease.

A continent ileostomy creates an internal reservoir emptied with a catheter. It avoids an external pouch but is performed at relatively few centres and can require revision surgery.

When to call your healthcare team

Contact your surgical or stoma team promptly for:

Seek emergency help for severe breathing difficulty, chest pain, fainting, confusion, uncontrolled bleeding, or signs of a serious allergic reaction.

- Increasing abdominal or pelvic pain rather than gradual improvement
- Repeated vomiting, abdominal swelling, or little or no stoma output
- Very watery or unusually high output, especially with thirst or reduced urination
- Fever, spreading redness, pus, or an opening surgical wound
- Persistent bleeding from the stoma or wound
- A stoma that becomes dark, very pale, cold, or suddenly much more swollen
- Ongoing pouch leakage or painful, badly damaged skin
- New difficulty passing urine

Common questions

Will I be asleep?

Yes. The operation is performed under general anaesthesia, so you will be unconscious.

Can I drive home?

No. You will stay in hospital for several days and need someone else to take you home. Do not resume driving until you can move and brake safely and are no longer using opioid pain medicine.

How painful is it?

You should expect abdominal soreness and, if the anus is removed, discomfort around the wound between the buttocks. Pain relief is provided and should make movement and breathing exercises manageable.

When will I know the results?

Your surgeon can discuss the operation soon afterward. Detailed laboratory results from the removed bowel generally take several days.

Will the ileostomy be permanent?

Usually, yes. Total removal of the colon and rectum leaves no route for reconnecting the small bowel to the rectum. Confirm the intended plan before surgery.

Can I eat normally afterward?

Most people gradually return to a broad diet. Early guidance usually focuses on chewing well, introducing foods slowly, and replacing the extra fluid and salt lost through an ileostomy.

Sources

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