PROCEDURE

Small bowel resection

Small bowel resection is surgery to remove part of the small intestine and restore the path for food and fluid.

PURPOSE
Remove diseased bowel and restore intestinal flow

PROCEDURE TYPE
Therapeutic surgery, open or minimally invasive

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General anaesthesia

HOW LONG IT TAKES
About one to four hours

PREPARATION
Fasting, medication review, sometimes bowel preparation

RECOVERY
Several hospital days; no driving until safely mobile and opioid-free

MAIN RISKS
Anastomotic leak, bleeding, infection, bowel blockage

RESULTS
Surgical findings immediately; tissue results within days to weeks

Overview

A small bowel resection is an operation to remove a damaged or diseased section of the small intestine. The small intestine is the long part of the digestive system between the stomach and large intestine. It absorbs nutrients and much of the fluid from food.

After removing the affected section, the surgeon usually joins the two healthy ends together. This join is called an anastomosis .

Sometimes it is not safe or possible to make a join. The surgeon may bring an end of the intestine through an opening in the abdomen. This creates a stoma , where bowel contents empty into a bag. A stoma may be temporary or permanent.

The operation may be performed through several small cuts using a camera. This is called

laparoscopic or robotic surgery. Open surgery uses one larger cut. The safest approach is based on the reason for surgery, previous operations, your general health, and what the surgeon finds.

Why the procedure is performed

Small bowel resection may be needed when part of the intestine is severely narrowed, blocked, injured, bleeding, or no longer healthy.

Reasons include:

Some operations are planned. Others are performed urgently when waiting could cause further harm.

- A bowel blockage that does not improve with non-surgical treatment
- Crohn's disease causing a severe narrowing, fistula, abscess, or perforation
- A non-cancerous growth or cancer
- Loss of blood supply to part of the bowel, called intestinal ischemia
- An injury to the abdomen
- A hole in the bowel, called a perforation
- Uncontrolled bleeding
- Bowel tissue trapped in a hernia or twisted around itself

Who should and should not have it

You may be offered a small bowel resection if removing the affected section is likely to relieve a blockage, control disease, remove a growth, or prevent damaged bowel from causing serious complications.

It is not the best option for every bowel problem. Surgery may be avoided when symptoms can be managed safely with medicines, nutrition treatment, endoscopic procedures, or careful observation.

Planned surgery may be delayed when possible if you have dehydration, severe malnutrition, uncontrolled blood sugar, anemia, or a heart or lung problem that needs treatment first. Blood-thinning medicines may also require a specific plan. These issues do not always prevent surgery, but improving them may make recovery safer.

Removing a large amount of small intestine can reduce your ability to absorb nutrients and fluids. Your surgeon will consider how much healthy bowel would remain. When extensive removal is expected, other surgical approaches may be discussed.

In an emergency, the risk of delaying surgery may be greater than the risks linked to these health concerns.

How to prepare

Your treating facility's own instructions take priority over general information in this article.

You will usually be told when to stop eating and drinking before surgery. Follow the stated times closely. Taking food or drink outside those instructions can make general anaesthesia less safe and may delay the operation.

Give the surgical team an up-to-date list of medicines, vitamins, and supplements. Ask specifically about blood thinners like warfarin or apixaban , diabetes medicines, and medicines used for weight loss. Do not stop a prescribed medicine unless your team tells you to.

A full bowel preparation is not required for every small bowel resection. You may be given laxatives or antibiotics like amoxicillin or doxycycline if the planned operation also involves the large intestine or if your surgeon considers them necessary.

Before surgery, you may have blood tests, imaging, an electrocardiogram, or an anaesthesia assessment. You may also be asked to shower with a particular cleanser.

Arrange practical help for after discharge. You will not be able to drive yourself home. If a stoma may be needed, a specialist stoma nurse may explain how it works and mark a suitable position on your abdomen.

What happens during the procedure

You will receive general anaesthesia, so you will be unconscious and will not feel the operation. A breathing tube is used while you are asleep.

The surgeon examines the small intestine and identifies the affected area. That section is separated from nearby tissue and removed. The healthy ends are usually joined with stitches or surgical staples.

If a safe join cannot be made, the surgeon may create a stoma. The possibility of a stoma should be discussed before planned surgery, although an unexpected finding can sometimes change the surgical plan.

With minimally invasive surgery, instruments and a camera are placed through several small cuts. One cut may be enlarged to remove the bowel. The surgeon may switch to an open operation if there is extensive scar tissue, severe inflammation, bleeding, or another safety concern.

Removed tissue is often sent to a laboratory for examination under a microscope.

Recovery and what to expect afterward

Pain and soreness around the incisions are expected. You will receive pain relief, and the team may adjust it if you remain uncomfortable. Tell them if pain suddenly becomes worse rather than gradually improving.

Eating usually restarts in stages. You may begin with sips of fluid and move toward solid food as your bowel begins working. Temporary nausea, bloating, and reduced appetite can occur. A dietitian may advise you if a long section was removed or you have ongoing diarrhea.

Early, gentle movement helps recovery and lowers the risk of blood clots and chest infections. Staff will help you sit up and walk. At home, increase activity gradually and follow instructions about lifting, exercise, bathing, and wound care.

Do not drive home. Resume driving only when you are no longer taking medicine that impairs alertness, can move comfortably, and can perform an emergency stop without hesitation. Your insurer may have additional rules.

Time away from work is based on the type of surgery, complications, and how physical your job is. Minimally invasive surgery may allow an earlier return than open surgery. Your team can provide a plan based on your operation.

Risks and possible complications

Every abdominal operation has risks. Your individual risk is affected by why surgery is needed, whether it is an emergency, the amount of bowel removed, and your general health.

Possible complications include:

An anastomotic leak can cause abdominal infection and may require antibiotics, drainage, or another operation.

Removing a large amount of intestine can cause short bowel syndrome , meaning too little bowel remains to absorb enough fluid and nutrients. Treatment may include dietary changes, supplements, medicines, or nutrition given through a vein.

- Bleeding or infection
- A leak from the bowel join
- A temporary slowing of the bowel, called ileus
- A later blockage caused by internal scar tissue
- Injury to nearby organs or blood vessels
- Blood clots in the legs or lungs
- Lung, heart, or anaesthesia complications
- Wound separation or an incisional hernia
- Diarrhea, dehydration, or difficulty absorbing nutrients
- Problems with a stoma, if one is created

Results and follow up

The surgeon can usually explain what was found and what was removed soon after the operation. You may not remember a conversation held shortly after anaesthesia, so the information may be repeated later.

If tissue was sent to a laboratory, the final result commonly takes several days to two weeks. Complex testing may take longer. The result can confirm the type of inflammation, growth, or other bowel damage and may affect further treatment.

Routine follow-up may include checking your incision, removing clips or staples when needed, reviewing laboratory results, and discussing eating and bowel function. If you have a stoma, follow-up includes help with the appliance, skin care, and plans for possible reversal.

Alternatives

The realistic alternatives depend on why resection has been proposed.

For some partial bowel blockages, bowel rest, intravenous fluids, and a tube through the nose into the stomach may allow the blockage to settle. This avoids immediate surgery but may fail or the blockage may return. It is not suitable for dead or perforated bowel.

Medicines and nutrition therapy can treat inflammation from Crohn's disease. They preserve the bowel but cannot reliably reverse fixed scar tissue, remove cancer, or repair a perforation.

Endoscopic balloon dilation may open certain short, reachable narrowings. It avoids removing

bowel but can cause bleeding or perforation, may need repeating, and is not suitable for every narrowing.

A strictureplasty widens a narrowed area without removing it. This preserves bowel length, which can be important after previous resections. It may not be appropriate when cancer, severe infection, or a perforation is suspected.

A bypass or stoma can divert bowel contents around a problem area. These approaches may avoid a large resection but can leave the diseased section in place or require a stoma bag.

Choosing no operation may be reasonable in some situations, including when the burdens of surgery outweigh the expected benefit. It may mean accepting ongoing symptoms or the risk that the bowel problem worsens. Palliative treatment can focus on comfort when cure or major surgery is not wanted.

When to call your healthcare team

Contact your surgical team promptly for increasing wound redness, drainage, worsening pain, repeated vomiting, persistent diarrhea, inability to keep fluids down, fever, or a swollen abdomen. Also call if your wound opens, you stop passing gas or stool after bowel function had returned, or your stoma stops working.

Seek emergency help for severe or rapidly worsening abdominal pain, heavy bleeding, fainting, new chest pain, difficulty breathing, confusion, or a stoma that becomes black or dark purple. These are different from routine recovery concerns and should not wait for a scheduled appointment.

Common questions

Will I be asleep?

Yes. Small bowel resection is performed under general anaesthesia. You will be unconscious and monitored throughout the operation.

Can I drive home?

No. Arrange for someone to take you home. Do not drive while taking opioid pain medicine or until you can move freely and react safely.

How painful is it?

Pain is expected, especially when coughing, standing, or moving. It should generally become more manageable as recovery continues. New or worsening pain needs medical review.

When will I know what the surgeon found?

The surgical findings are usually explained soon after the operation. Results from tissue examined in the laboratory often take several days to two weeks.

Will I need a stoma bag?

Many people do not. A stoma may be needed if joining the bowel is unsafe or if the join needs time to heal. Ask whether this is a realistic possibility for your operation.

Will my digestion be normal afterward?

Many people adapt well after a short section is removed. Stool may initially be looser or more frequent. Larger resections can cause longer-term problems absorbing fluids or nutrients.

Sources

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- NHS: Ileostomy , National Health Service