for patients

NHS
East Suffolk and North Essex
NHS Foundation Trust

Bowel surgery sigmoid colectomy

Robotic Colorectal Surgery
Colchester Hospital
Tel: 01206 742356



(DPS: 00212-25 LN: 813)

Introduction

This booklet gives you information about robotic-assisted sigmoid colectomy. It is important that you understand this information, as by law, we need your consent before the procedure. If you have any questions, please ask a senior staff member.

If possible, we will use robotic surgery, also called keyhole surgery. This is a type of minimally invasive surgery. However, if this is not technically possible, we can use the traditional method of open surgery.

No matter which method we use, your safety and wellbeing will always come first.

Robotic-assisted surgery is done while you are asleep under general anaesthetic.

Anaesthetics

There is a separate leaflet called 'Anaesthetics', which explains what anaesthesia is, the type used during your procedure, and the risks involved. Anaesthesia is medication that keeps you comfortable and pain-free during surgery.

If you have any concerns, speak with the doctor responsible for your anaesthesia (anaesthetist). If you have not received an information sheet about anaesthesia, please ask for one.

What is robotic surgery?

Robotic–assisted surgery is when the surgeon uses a surgical robotic system to operate on the bowel. This is similar to more traditional keyhole or laparoscopic surgery. It is important to understand that the robotic system does not perform your procedure. Your surgeon will be carrying out the operation

alongside their team and will be in control of your operation the whole time. The robotic system has four arms that hold a camera and the surgical tools. A surgeon controls the robotic system from the surgeon console, which is in the operating theatre. Their team helps with the operation.

After this type of surgery it is common to have some pain in your shoulder tip. This happens because the gas used during surgery can irritate the diaphragm, a large muscle that sits under your lungs and helps you breathe. The diaphragm and the shoulder tip share the same nerve supply, which is why you may feel shoulder pain after surgery. This pain gradually eases, particularly once you are up and moving about.

The length of time to recover can vary from patient to patient but usually takes about 2–4 weeks, but you may be tired for some weeks after that.

The benefits of robotic surgery

The robotic system allows the surgeon greater control of surgical instruments and improved images of the area inside your tummy where the operation takes place. Robotic and keyhole surgery has many advantages including

- reduced pain after your operation
- reduced complications compared to open surgery
- quicker return to normal activities.

The operation

Surgery is the main treatment for bowel cancer. Different types of surgery are used depending on where the cancer is. Your planned operation is called a sigmoid colectomy, which removes cancer from the sigmoid colon. Usually, the cancer and a length of normal bowel on either side of the cancer

(as well as nearby lymph nodes) are removed. The bowel is then joined together with stitches or staples (anastomosis or join). This surgery is also recommended for patients who have complicated diverticular disease affecting the sigmoid colon.

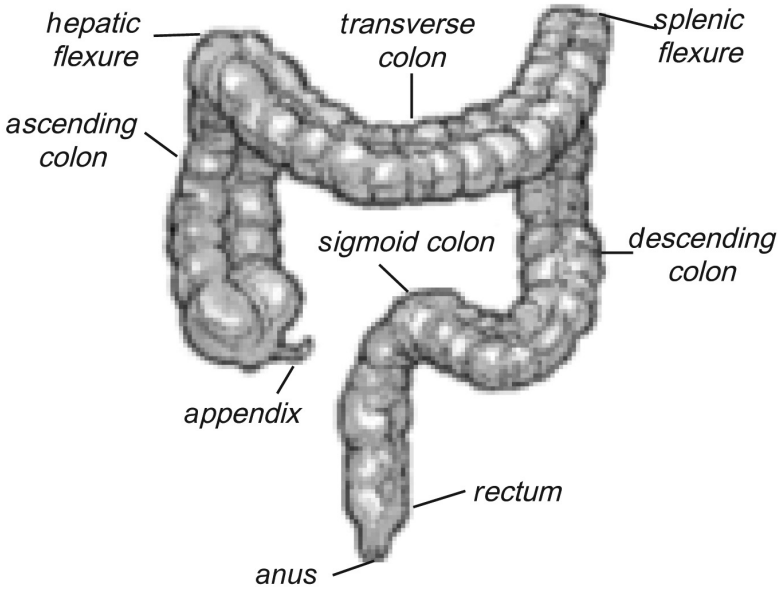


Diagram showing parts of the bowel

Will I need a stoma?

Most patients will not require a stoma when having a sigmoid colectomy. However, in some circumstances it is beneficial to allow the join to heal by diverting bowel contents.

If required, a section of your small bowel will be brought to your abdominal wall to create a stoma (ileostomy). Your poo will pass through the stoma into a bag, and you will receive support to help you manage it.

This is usually temporary and is reversed (to restore the continuity of the bowel) at about 6–12 weeks after you leave hospital. You will be seen in the Outpatient Clinic to assess the most appropriate time for this to happen. Occasionally a small leak from the join may be detected and this will delay the closure of your stoma.

In some cases, if it is not possible to safely join your bowel during surgery, you may need a different type of stoma (colostomy), but this is uncommon.

Your surgeon will discuss with you your individual risk of having a stoma formed. If your surgeon thinks it would be helpful before your operation, a stoma nurse may mark your abdomen (known as a siting) with a skin marker pen. This is to guide your surgeon to the best possible place to bring out the stoma, if it is necessary. Your stoma nurse will also discuss with you, in more detail, what having a stoma will involve and answer any questions you may have.

Preparation for surgery

You will be seen in the Pre-assessment Clinic before your operation and will need to undergo additional tests, such as blood tests and a tracing of your heart (ECG). If you have other health conditions and would benefit from further assessment from the anaesthetic team before your operation, then this will be arranged. All patients will get to speak to a member if the anaesthetic team before their operation, although this may take place on the day of your surgery.

Enhanced recovery

The hospital follows the principles of enhanced recovery after surgery, as this helps to reduce the risk of you developing complications and improves the outcomes from your surgery. You will be provided with additional information regarding this. It is important that you carefully follow any instructions regarding medications and dietary advice provided for you before your operation and try to follow the post-operation advice to the best of your ability.

Aim of treatment

The aim of this operation is to remove the diseased area of bowel and improve your symptoms. If your operation is because you have cancer, then the aim is to remove the tumour and provide information regarding the stage (the stage is a term used to describe the extent of the cancer in the body) of your cancer so that further treatment can be arranged if necessary. In most cases it is hoped that surgery will provide a cure for your cancer.

Results

It will take a minimum of 4 weeks for you to receive the outcome of the analysis from the bowel and tumour which have been removed. This is normal and takes this time because it is important to examine the bowel carefully. The results will shared with you after discussion by your specialist team.

Treatment alternatives

If your surgery is because of cancer, this treatment would have been recommended following review of your case in a meeting attended by surgeons, nurse specialists and radiologists (multidisciplinary meeting). Should you wish to avoid surgery, there is risk that your cancer will spread. The tumour in the bowel may also grow and lead to a blockage. Sometimes chemotherapy and radiotherapy may be recommended before surgery. Your surgeon will discuss your treatment options in each individual case. Most people will not experience any serious complications from their surgery.

However, risks do increase with age and for those who already have heart, chest, or other medical conditions such as diabetes or for those who are overweight or smoke. It is therefore beneficial to stop smoking and ensure you are taking any prescribed medication as you have been instructed.

Risks of not having the surgery

Symptoms including pain and bleeding may become worse and your bowel may completely block or burst. Without surgery, the disease may spread to other parts of your body.

Risks of surgery

Complication: Bleeding.

Explanation: The risk of bleeding is present with all surgery. It is usually dealt with during the operation but can occur later.

Treatment: Significant bleeding may require a blood transfusion or a further operation.

Complication: Infection.

Explanation: The risk of infection is present with all surgery. Your team will take precautions, including sterile equipment and operating team. You will receive antibiotics during your operation. Sometimes major surgery can cause serious infections.

Treatment: Urine infections are often treated with antibiotics. Wound infections may be treated with antibiotics or drainage through an opening in the wound. Chest infections are often treated with antibiotics. Infections or collections within the tummy may be treated with antibiotics or may require placement of a drainage tube to drain away fluid which has collected.

Complication: Risks from general anaesthetic.

Explanation: This will be discussed in detail by the anaesthetic team. Risks can include allergic reactions and very rarely a risk to your life.

Treatment: The anaesthetic team are trained to deal with these complications.

Complication: Blood clots.

Explanation: During surgery you are at risk of blood clots developing in the legs (DVT). These can travel to the lungs (PE) which can be serious. You will be given DVT prevention socks to wear before, during and after surgery.

Treatment: You will be provided with daily injections to reduce your risk of clots and will be encouraged to walk around each day during recovery. Blood thinning medication may be required to treat a clot if it forms.

Complication: Injury to ureter.

Explanation: These are small tubes which drain fluid from your kidneys. They lay close to the bowel. The surgeon takes great care to identify and protect them during the operation but they can be injured accidentally.

Treatment: This may require further surgery to repair, either at the time of your operation or later.

Complication: Injury to other structures including other organs, bowel and bladder, vessels and nerves.

Explanation: There is small risk that other structures may be injured during the operation. The surgeon will take great care to avoid this if possible. Injury is usually recognised and repaired during your operation.

Treatment: Rarely, injury to other structures may not be detected at the time of surgery but you will be monitored for any problems during your recovery. Some injuries may require further surgery to repair.

Complication: Anastomotic leak.

Explanation: Leak of fluid from the join made between the two ends of bowel. This is a serious complication of surgery and can make you very unwell. Should it happen, it will usually be evident during your recovery but can be delayed. Your team will monitor you for this complication whilst in hospital.

Treatment: This may require further surgery and the formation of stoma. Small leaks may be managed with a drainage tube and antibiotics, especially if a stoma was formed at the time of your surgery.



Complication: Ileus.

Explanation: Sometimes the bowel is slow to start working after surgery. This causes vomiting and delays you from eating and drinking normally. This complication normally resolves without treatment.

Treatment: If this happens, the bowel may need to be rested and a drip (a tube into a vein in your arm) is used to give you fluids (instead of drinking). In addition, you may also need a nasogastric tube (small tube in your nose which passes into your stomach) so that fluid collecting in your stomach can be drawn off. This will help to prevent nausea and vomiting and will remain in place until the bowel recovers.

Complication: Change to bowel function.

Explanation: Usually there is a temporary change to the bowel function after this type of surgery and people may find they need to go to the toilet to pass poo more frequently or more quickly than before the operation. This usually settles to a manageable frequency after a few weeks. Occasionally people may also have temporary constipation.

Treatment: If you have ongoing worries after a few weeks, then please speak to your surgeon or nurse specialist team so they can help you manage this. Your surgical team will also ask you about this whilst you are in hospital.

Complication: Stoma-related complications.

Explanation: It is unlikely that you will need a stoma. However, sometimes it is not possible to join the bowel back together and a stoma is formed. The stoma can develop some problems such as poor blood supply, hernia, high output, retraction (sink in), prolapse and stenosis (narrowing) and skin irritation.

Treatment: Some problems can be managed with medication and dietary changes or adjustments of appliances. However, some complications may require further surgery to resolve. You will be seen by a stoma nurse specialist to support you during your admission.

Complication: Compartment syndrome/peripheral nerve damage.

Explanation: These are very rare complications of surgery. Compartment syndrome is where pressure can build up in a muscle during the operation. The surgical team take great care to protect your arms and legs from this complication, but it can sometimes be unavoidable.

Treatment: Surgery is required to release pressure from the area affected if you develop compartment syndrome. Peripheral nerve damage often improves over time but if you have ongoing symptoms, you will be supported with this.

Complication: Heart attack.

Explanation: With any major surgery there is a small risk of a heart attack during the surgery or recovery. The anaesthetic team and surgical team will assess the risk of these serious but rare complications.

Treatment: You will be seen by a specialist team should this happen.

Complication: Scarring/adhesions.

Explanation: Sometimes scar tissue builds up on the inside of your tummy following surgery. These are called adhesions. Adhesions can sometimes interfere with the function of the bowel by wrapping around it. This may happen soon after your operation or many years after.

Treatment: Often this scar tissue causes no problems but sometimes it can block the bowel and require further surgery to remove it later.

Complication: Incisional/port site hernia.

Explanation: When the surgeon makes cuts on the tummy wall to perform the operation it weakens the underlying layers of tissue. A hernia (bulge) may form in this area. The surgeon uses strong stitches to close the deeper layers of your tummy to prevent this. You should not lift anything heavy for four weeks until these deeper layers have healed.

Treatment: This may require surgery later if it is problematic.

Complication: Risk to life.

Explanation: Surgery to remove part of the bowel is classified as major surgery.

Treatment: Your surgeon and anaesthetic team will discuss this risk with you, so that you can make an informed decision about having your operation.

Complication: Subcutaneous emphysema.

Explanation: Gas that is used to inflate the abdominal cavity can accumulate in subcutaneous tissues (under the skin), such as the tummy or chest. It can cause swelling, tenderness, and a crackling sensation when touched. It can spread to other areas.

Treatment: The gas used is rapidly absorbed and therefore usually does not need treatment. If the area is extensive or around the upper chest/neck, you may require additional monitoring by the anaesthetic team.

Recovering from your operation

After the operation the nursing staff will watch you closely until you have recovered from the anaesthetic. You may even be cared for in the Intensive Care Unit immediately following your surgery.

The recovery period after bowel surgery varies. It usually involves a stay in the hospital from 2–5 days in uncomplicated cases. Immediately after your operation the following are usually in place for your care and wellbeing:

- intravenous fluids via a cannula (fine plastic tube) in your neck or arm to keep you hydrated until you are able to drink enough. You may also be given medication via this tube
- you may have a pain relief drip connected to a button for you to press to control your own levels of pain relief medication
- a catheter (plastic tube) draining urine from your bladder into a collection bag so we can accurately measure the amount.

These tubes are removed as soon as possible after your operation depending on your condition and rate of recovery. You will be discouraged from spending long periods of time in bed and given the assistance you require to carry out your daily hygiene, dietary and exercise routines until you gradually become stronger and more independent.

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Diet

During the first few days of recovery, you will be able to eat but will probably have a reduced appetite. It is important to choose small amounts at more frequent intervals at first.

Meals can be supplemented with nourishing soups and snacks and with high energy drinks. Your body will need a lot of energy to heal and recover.

The bowel may take a little while to recover and work normally.

Everyone recovers at a different pace, but you'll know your bowel is starting to work when you pass wind or are able to go to the toilet for a poo. It is normal for your bowels to be unpredictable after this type of surgery.

If you have a stoma

The stoma drains waste from the bowel into the collection bag. Most stoma waste is softer and more liquid than your usual passed bowel waste.

The thickness of the bowel waste depends on where the stoma is. If you have an ileostomy, your stoma will have been formed using the small bowel and the waste will be more liquid. If you have a colostomy, your stoma will have been formed using the large bowel and the waste will be more solid.

There is a wide variety of appliances (bags) available to suit your requirements. These stick to the skin around the stoma and are very discreet. Most people easily adapt to taking care of their stoma themselves. You will be given full information and support to enable you to manage your stoma both in the hospital and after you leave.

Your lungs and blood supply

After surgery it is likely you will wear elastic (anti-embolism) stockings. These are tight-fitting stockings that are used to reduce the risk of blood clots forming in your legs.

Following surgery it is very important that you start moving as soon as possible. This helps to prevent blood clots forming in your legs and possibly going to your lungs.

To reduce the risk of a blood clot after your surgery, you may be given a small injection to self-administer the night before your surgery. You may need to continue this for up to 28 days after surgery.

You also need to do your deep breathing exercises. Take ten deep breaths every hour to prevent secretions collecting in the lungs. If this happens, you may develop a chest infection. At all costs, avoid smoking after surgery as this increases your risk of chest infection.

Expect to feel tired for some time after surgery. You need to take things easy and gradually return to normal activities and work, as you feel able. The time taken to recover from your operation varies and depends on you as an individual and the type of operation you have had. In most cases this should take no longer than 2–6 months.

Driving

Check with your insurance company about whether there are any exclusions to you driving. This includes being under the influence of some pain relief medication. Ensure you can do an emergency stop and wear a safety belt.



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Lifting after surgery

The best advice is ‘if it hurts don’t do it’. Lifting heavy weights is not advisable until at least four weeks after your surgery.

Identification wristbands

Wristbands are used to identify hospital inpatients. When you are in hospital it is essential that you are given and wear your wristband, which carries your name, date of birth, NHS number and hospital number. This ensures that staff can identify you correctly and give you the right care.

Your photographic records

As part of your treatment, a photographic record may be made, such as X-ray(s), clinical photographs or digital images, which will be kept confidentially in your health records and seen only by people involved in your care or quality checking. They are also extremely important for teaching or medical research, so we may ask for your written consent to use your images, in which case your personal details will be removed so you cannot be identified.

Further information

You can discuss any further questions with your consultant, nurse specialist or pre-assessment team.

Comments, compliments or complaints about your care

Please raise any concerns in the ward or department you are in. Ask to speak with the ward sister, matron or department manager. If your concerns cannot be resolved or you wish to make a formal complaint, please call PALS (Patient Advice & Liaison Service) on **0800 783 7328**, pick up a PALS leaflet or visit **www.esneft.nhs.uk** and search for 'PALS'.



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Your experience matters

We value your feedback. Please help us improve our services by answering a simple question, in our online survey – "Overall, how was your experience of our services?"

This survey is known as "The Friends and Family Test".

You can either scan this QR code with a smart phone camera:



Or type the following web address into your browser: www.esneft.nhs.uk/get-involved/your-views-matter/friends-and-family-test/

Thank you very much.

Colchester Hospital

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https://www.esneft.nhs.uk/your-visit/getting-here/how-to-get-to-colchester-hospital/

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