

# Colectomy - Right Hemicolectomy

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## **About Colectomy**

You have been recommended surgery to remove part of the colon (large intestine) – termed a colectomy.

This operation aims to remove a diseased portion of the bowel usually without the need for a stoma (bag).

Colectomy is recommended for certain bowel cancers, and for other diseases of the colon such as diverticular disease and inflammatory bowel disease (Crohn's or ulcerative colitis).

The main function of the colon is to absorb fluid to produce a formed stool. When part of the colon is removed most people do not experience a large change in their bowel habit. In general, the more that is removed, the more likely it is that the bowel habit would become more frequent and / or a little looser. However, this is not always predictable.

## You have been asked to have a Right hemicolectomy - What is it?

A Right Hemicolectomy is basically the removal of the right hand side of your large bowel (colon) including the lowest part of the small bowel. Occasionally, the transverse section (middle section of large bowel that lies across the abdomen) may also be removed. This is known as an Extended Right Hemicolectomy.

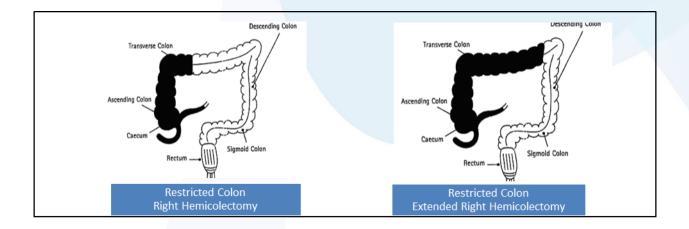
As indicated by the diagrams below the shaded area highlights the approximate area of bowel to be removed.

The operation will remove the diseased area of bowel as well as a length of normal bowel at either side of the disease

This appears a large area of bowel to be removed; however it is necessary to remove so much due to the blood supply that looks after the bowel rather than the disease itself.

In the majority of cases the two ends of healthy bowel are then re-joined together (anastomosed) by stitching or stapling the ends together.

The wound on the abdomen maybe closed with clips, stitches or 'skin glue.'



Shaded areas indicate approximate section of bowel to be removed

# Will I have a stoma? (colostomy, ileostomy, sometimes described as a 'bag')

It is highly unlikely that you will require a stoma following this operation.

However, in a minority of cases the surgeon may decide that the bowel needs time to heal before it can be reattached. In this case it is necessary for waste products to be removed from your body without the stools passing through your anus by using a stoma. Stomas formation involves the surgeon making a small hole in your tummy and a section of the bowel is brought to the abdominal surface (tummy) and stitched to your skin, the bowel waste comes out of the stoma and collects in a bag that covers it.

In most cases the stoma will be temporary and can be put back together at a later date, this involves a second operation when you and your bowel have healed and recovered from the effects of the initial surgery. The time of this is variable, whether a stoma is likely to be permanent or temporary or when a stoma will be reverses can be discussed with you by your surgeon, colorectal and/or stoma nurse.

Before you operation your consultant or colorectal nurse will explain the procedure involved although details will vary according to individual cases. It is important to note that sometimes during the operation the disease or operation is more complicated than first anticipated, the type of surgery may then have to be changed to achieve the desired result. This may mean removing more bowel, or part of nearby organs such as the bladder. The consent form will address this option which you will need to sign to confirm that you agree to have surgery.

#### Intended benefits

The aim of the surgery is to remove the disease process causing your symptoms – whether it is cancer, inflammation, pain or blockage. For most patients this will provide a cure or significant improvement of their bowel problems. For cancer operations, surgery gives the best chance of cure, and the treatment may need to be combined with chemotherapy and/or radiotherapy.

Even in cancer surgery, where certainty of cure is difficult to guarantee, the benefits should be long lasting.

# Who will perform my procedure?

Your surgery will be performed by surgeon with particular skills and training in bowel surgery.

This is usually a consultant colorectal surgeon or senior specialist registrar, often under consultant supervision.

# Before your admission

You will need to attend a pre-admission clinic, which is usually run by one of the specialist nurses. At this clinic, we will ask for your details of your medical history and carry out any necessary clinical examinations and investigations. Please ask us any questions about the procedure, and feel free to discuss any concerns you may have.

We will ask if you take any tablets or use any other types of medication either prescribed by a doctor or bought over the counter in a pharmacy. Please bring any relevant packaging with you.

You may have a blood test and an ECG performed, as well as swabs taken for MRSA.

Your operation will require a general anaesthetic. We explain about the different types of anaesthesia or sedation we may use at the end of this leaflet. You will see an anaesthetist before your procedure.

You will also be asked to attend bowel school where you will be given information regarding your recovery. You will meet member of the team who are vital in your recovery.

You may also be given carbohydrate drinks to optimise your health state whilst in theatre.

Most people who have this type of procedure will need to stay in hospital for two to six days after the operation. Sometimes you will need to stay in for longer than usual. Your doctor will discuss this with you before you decide to have the procedure.

Those with medical problems or special needs may need to stay in hospital longer.

## Day of surgery admission

Most patients are admitted on the day of surgery. If you need to have a completely empty bowel you should take a 'bowel prep' (given to you at bowel school) at home the previous day.

You may also be asked to have an enema to clear the back passage prior to surgery. These preparations are not always necessary.

## Hair removal before an operation

For most operations, you do not need to have the hair around the site of the operation removed.

However, sometimes the healthcare team need to see or reach your skin and if this is necessary they will use an electric hair clipper with a single-use disposable head, on the day of surgery. Please do not shave the hair yourself or use a razor to remove hair, as this can increase the risk of infection. Your healthcare team will be happy to discuss this with you.

It may be necessary during the procedure to shave other areas of your body if appropriate to allow equipment/machines, for example diathermy machines (used to seal blood vessels), to stick to your skin to achieve the best and safest performance.

# **During the procedure**

Before your procedure, we will give you the necessary anaesthetic – see below for more details.

Your anaesthetist will also discuss post-operative pain relief with. You will need to have a catheter inserted once you are asleep so we can measure urine output. This will be removed within the first few days after the operation.

Colonectomy can be performed by a standard 'open' operation with an incision in the abdomen or by laparoscopic 'keyhole' surgery. Keyhole surgery still requires an incision through which the tumour is removed. The choice of method depends on a number of factors including the part of the bowel to be removed, the reasons for your surgery, your build and coexisting medical conditions, any previous operations on your abdomen, and surgeon preference.

Please feel free to discuss this with your surgeon if you need clarification. With keyhole surgery it is sometimes not possible to complete the procedure using this technique; there would be a need to convert to an open operation in this case.

The first part of the procedure is to assess the abdominal contents. We can usually see the exact nature of the disease in your colon and also check other parts of the abdomen – for example the liver, stomach, small intestine or ovaries.

The colon is then mobilised (freed up from its surrounding attachments) so that it can be safely removed, along with some of the mesentery (a flat fatty sheet that carries the blood vessels and lymph drainage from the bowel). In most cases the remaining bowel ends can be joined up again either using special stapling instruments or sutures.

If a stoma (where the bowel is brought out to the skin) is needed then this will have been discussed in advance. At the end of the operation the abdominal wall is stitched together and then the skin is closed, often with absorbable sutures (so there is no need for stitches to be removed after the procedure).

## After the procedure

Once your surgery is complete, you will usually be transferred to the recovery ward where you will be looked after by specially trained nurses, under the direction of your anaesthetist. The nurses will monitor you closely until the effects of any general anaesthetic have adequately worn off and you are conscious. They will monitor your heart rate, blood pressure and oxygen levels. You may be given oxygen via a facemask, fluids via a drip and appropriate pain relief until you are comfortable enough to return to your ward. You will also have a tube (catheter) in your bladder to drain away urine – this enables careful measurement and avoids the need for you to get out of bed to urinate.

After certain major operations you may be transferred to the intensive care unit (ICU/ITU), high dependency unit (HDU). These are areas where you will be monitored much more closely because of the nature of your operation or because of certain pre-existing health problems that you may have. If your surgeon or anaesthetist believes you should go to one of these areas after your operation, they will tell you and explain to you what you should expect.

Sometimes, people feel sick after an operation, especially after a general anaesthetic, and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.

If there is not a bed in the necessary unit on the day of your operation, your operation may be postponed as it is important that you have the correct level of care after major surgery.

# **Enhanced recovery**

Where possible we make use of 'enhanced recovery' principles to minimise the impact of surgery on the body and enable a rapid return to normal activity.

There are many aspects to this process which includes preoperative (before), intraoperative and postoperative procedures.

We aim to minimise pain; perform careful surgery; avoid unnecessary drips, tubes and drains; enable you to eat and drink straight after your operation; encourage early mobilisation to stimulate recovery and allow you to go home soon and safely.

We want you to be involved with this and need your help to improve your recovery.



**Eating and drinking.** It is safe drink and even eat after surgery providing you feel the desire to do so. You should not eat or drink if it makes you feel sick or bloated.



**Getting about after the procedure.** We will help you to become mobile as soon as possible after the procedure. This helps improve your recovery and reduces the risk of certain complications. You will have daily injections which reduce your chance of blood clotting in your legs (DVT). Typically, you will be helped into a chair the following day. If you have any mobility problems, we can arrange nursing or physiotherapy help.



**Leaving hospital.** Most people who have this type of procedure will need to stay in hospital for two to five days. Sometimes complications arise and these will delay discharge. When you go home we would expect you to be mobile, comfortable and able to eat safely. The actual time that you stay in hospital will depend on your general health, how quickly you recover from the procedure and your doctors opinion.



Resuming normal activities including work. Most people who have had this procedure can get back to normal activities within six weeks. Initially you will feel more tired than usual but this should not stop you from doing anything, because activity is beneficial. For driving you need to feel safe and to be able to brake in an emergency – this often takes two to four weeks. When going back to work see if you can start half days or work a bit from home until your energy levels are improved.



**Special measures after the procedure.** Sometimes people feel sick after an operation, especially after a general anaesthetic, and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.



**Pain control.** This is usually with either a spinal injection or patient-controlled analgesia (see below for details).

**Check-up and results.** Before you leave hospital, we will give you details of when you need to return to see us, for example outpatient clinics or for the results of your surgery. At this time, we can check your progress and discuss with you any further treatment we recommend.

# Significant, unavoidable or frequently occurring risks of this procedure

Surgery to remove part of the bowel is a major operation and there are certain risks known to be associated with it. These include the risks of surgery in general, the risks particularly associated with bowel surgery and the risks of anaesthetic described in more detail over the page. The general risks of surgery include problems with the wound (for example, infection), breathing (for example, chest infection), heart (for example, abnormal rhythm or occasionally a heart attack), blood clots (for example, in the legs or occasionally in the lung) or kidney function (for example, kidney failure).

Those specifically related to colectomy include problems with the seal where the bowel has been joined (for example, 'anastomotic leak'), a transient blockage of the bowel, bleeding or infection in the abdominal cavity.

Rarely, further surgery is required to put right such complications.

If there is a leak from the bowel join (anastomotic leak) surgery is often required and this usually requires a stoma to be created; this is a serious complication but the risk is low, or the order of 5-7%.

Sometimes during the operation it becomes apparent that the disease is more complicated than was anticipated; the type of surgery may need to be altered to take this into account. This may mean removing more bowel or part of a nearby organ (for example small intestine, bladder or ovary). The consent form you sign will include this possibility.

If there is any part of you which you specifically do **not** wish to be removed then this must be written clearly on the consent form before signing.

When a colectomy is performed it is almost always possible to join the two ends of the remaining bowel together afterwards. Very rarely, due to unforeseen circumstances this may not be possible and the bowel may need to be brought out to the skin as a stoma (for example colostomy or ileostomy).

If there is a significant possibility of this, your surgeon will let you know and you will be counselled by a stoma nurse prior to the operation.

Most people will not experience any serious complications from their surgery. The risks increase for the elderly or overweight and for those who already have heart, chest or other medical conditions such as diabetes or kidney failure. There is a tiny risk of death. You will be cared for by a skilled team of doctors, nurses and other health care workers who are involved in this type of surgery on a daily basis. Any problems that arise can be rapidly assessed and appropriate action taken.

# Alternative procedures that are available

For most of the conditions where colectomy is advised the only alternative to surgery is medical treatment with drugs.

Where there is cancer of the bowel, drug treatment alone will not cure the disease. If you were to decide against surgery then your cancer would progress, though usually quite slowly over months. This could result in bleeding, the development of a blockage of the bowel and eventually the spread of cancer to other parts of the body.

For inflammatory conditions surgery is usually recommended when medical treatment has failed to control the symptoms. Where there is a narrowing of the bowel it is sometimes possible to stretch this from within using a special balloon, though often surgery is the better option.

#### **Anaesthesia**

Anaesthesia means 'loss of sensation'. There are three types of anaesthesia: general, regional and local. The type of anaesthesia chosen by your anaesthetist depends on the nature of your surgery as well as your health and fitness. Sometimes different types of anaesthesia are used together.

## **Before your operation**

Before your operation you will meet an anaesthetist who will discuss with you the most appropriate type of anaesthetic for your operation, and pain relief after your surgery. To inform this decision, he/she will need to know about:

- Your general health' including previous and current health problems
- Whether you or anyone in your family has had problems with anaesthetics
- Any medicines or drugs you use
- Whether you smoke
- Whether you have had any abnormal reactions to any drugs or have any other allergies
- Your teeth, whether you wear dentures, or have caps or crowns
- Your anaesthetist may need to listen to your heart and lungs, ask you to open your mouth and move your neck and will review your results.

## Moving to the operating room or theatre

Before starting your anaesthesia, the medical team will perform a check of your name, personal details and confirm the operation you are expecting.

You will change into a gown before your operation and we will take you to the operating suite.

When you arrive in the theatre or anaesthetic room monitoring devices may be attached to you, such as blood pressure cuff, heart monitor (ECG) and a monitor to check your oxygen levels (a pulse oximeter).

An intravenous line (drip) may be inserted and you may be asked to breathe oxygen through a face mask.

#### General anaesthesia

During general anaesthesia you are put into a state of unconsciousness and you will be unaware of anything during the time of the operation. Your anaesthetist achieves this by giving you a combination of drugs.

While you are unconscious and unaware your anaesthetist remains with you at all times. He or she monitors your condition and administers the right amount of anaesthetic drugs to maintain the correct level of unconsciousness for the period of the surgery. Your anaesthetist will be monitoring such factors as heart rate, blood pressure, heart rhythm, body temperature and breathing. He or she will also constantly watch your need for fluid or blood replacement.

# Regional anaesthesia

Regional anaesthesia includes epidurals, spinals, caudals or local anaesthetic blocks of the nerves to the limbs or other areas of the body. Local anaesthetic is injected near to nerves, numbing the relevant area and possibly making the affected part of the body difficult or impossible to move for a period of time. Regional anaesthesia may be performed as the sole anaesthetic for your operation, with or without sedation, or with a general anaesthetic. Regional anaesthesia may also be used to provide pain relief after your surgery for hours or even days.

Your anaesthetist will discuss the procedure, benefits and risks with you and, if you are to have a general anaesthetic as well, whether the regional anaesthesia will be performed before you are given the general anaesthetic.

#### Local anaesthesia

In local anaesthesia drug is injected into the skin and tissues at the site of the operation. This area of numbness will be restricted and some sensation of pressure may be present, but there should be no pain. Local anaesthesia is used for minor operations such as stitching a cut, but may also be injected around the surgical site to help with pain relief. Usually a local anaesthesia will be given by the doctor doing the operation.

#### **Sedation**

Sedation is the use of small amounts of anaesthetic or similar drugs to produce a 'sleepy-like' state. Sedation may be used as well as a local or regional anaesthetic. The anaesthesia prevents you from feeling pain and the sedation makes you drowsy. Sedation also makes you physically and mentally relaxed during an investigation or procedure which may be unpleasant or painful (such as an endoscopy) but where your co-operation is needed. You may remember a little about what happened but often you will remember nothing. Sedation may be used by other professionals as well as anaesthetists.

#### What will I feel like afterwards?

How you will feel depends on the type of anaesthetic and operation you have had, how much pain relieving medicine you will need and your general health.

Most people will feel fine after their operation. Some people may feel dizzy, sick or have general aches and pains. Others may experience some blurred vision, drowsiness, a sore throat, headache or breathing difficulties.

You may have fewer of these effects after local or regional anaesthesia. When the effects of the anaesthesia wear off you may need pain relieving medicines.

#### What are the risks of anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years.

The risk to you as an individual will depend on whether you have any other illness, personal factor (such as smoking or being overweight) or surgery which is complicated, long or performed in an emergency.

#### Very common (1 in 10 people) and common side effects (1 in 100 people)

- Feeling sick and vomiting after surgery
- Sore throat
- Dizziness, blurred vision
- Headache
- Bladder problems
- Damage to lips or tongue (usually minor)
- Itching
- Aches,
- pains and backache
- Pain during injection of drugs
- Bruising and soreness
- Confusion or memory loss

#### **Uncommon side effects and complications (1 in 1000 people)**

- Chest infection
- Muscle pain
- Slow breathing (depressed respiration)
- Damage to teeth
- An existing medical condition getting worse
- Awareness (becoming conscious during your operation)

### Rare (1 in 10,000 people) and very rare (1 in 100,000 people complications

- Damage to the eyes
- Heart attack or stoke
- Serious allergy to drugs
- Nerve damage
- Death
- Equipment failure

Deaths caused by anaesthesia are very rare. There are probably about five deaths for every million anaesthetics in the UK.

For more information about anaesthesia, please visit the Royal College of Anaesthetists' website: www.rcoa.ac.uk.

#### Pain relief

Pain relief (analgesia) after major bowel surgery may be provided by regional analgesia, caudal or spinal injection (depending upon your particular operation), or by strong pain killers such as morphine, usually administered into the vein by a patient controlled analgesia system.

The latter is a system whereby you control the administration of pain killer into your intravenous drip by pressing a button.

Local anaesthetic injections around nerves which supply the abdominal wall may also be used e.g. TAP blocks.

Your anaesthetist will discuss pain relief with you prior to surgery, along with the risks and benefits of the techniques.

The risks of the epidural and spinal pain relief are similar to the risks of regional anaesthesia, as listed above.

Other analgesics may also be administered as injections, tablets or suppositories (if appropriate), particularly after a day or two, when the pain will be decreased and the epidural or patient controlled analgesia are stopped.

This hospital has an 'Acute pain team', who are a team of a nurse and anaesthetists who specialise in pain relief after surgery.

One of the team may visit you after your surgery to help and advise the ward team with the management of any pain you may have.

# **Information and Support**

We might give you some additional patient information before or after the procedure, for example, leaflets that explain what to do after the procedure and what problems to look out for.

If you have any questions or anxieties, please feel free to ask a member of staff including the doctor or ward staff.

## Important things you need to know

Patient choice is an important part of your care.

You have the right to change your mind at any time, even after you have given consent and the procedure has started (as long as it is safe and practical to do so).

If you are having an anaesthetic you will have the opportunity to discuss this with the anaesthetist, unless the urgency of your treatment prevents this.

We will also only carry out the procedure on your consent form unless, in the opinion of the responsible health professional, a further procedure is needed in order to save your life or prevent serious harm to your health.

However, there may be procedures you do not wish us to carry out and these can be recorded on the consent form.

We are unable to guarantee that a particular person will perform the procedure.

However the person undertaking the procedure will have the relevant experience.

All information we hold about you is stored according to the Data Protection Act 1998.

# **Privacy and Dignity**

Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high-tech equipment and /or specialist one to one care is required.

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