Being overweight or obese and carrying a lot of weight around your waist can increase your risk of bowel cancer. Measuring your BMI (Body Mass Index) is a simple way of finding out if you're a healthy weight for your height. Your practice nurse, GP or dietitian can help you or you can check your BMI on the NHS website nhs.uk.

So, as well as being physically active, here are a few tips to reduce your calorie intake if you need to lose weight.

- Be aware of portion sizes and don’t overload your plate. If you are still hungry, have some fruit after your meal.
- Be wary of ‘large’ or ‘value-sized’ offers. They often give you more food than you need, leading to weight gain.
- Replace fruit juices and fizzy drinks with water and herbal teas.
- Alcohol is high in calories so limit the amount you drink.
- Snack on fruit and vegetables instead of biscuits and crisps.

Know your healthcare team

Your operation
Bowel cancer surgery
Introduction

For the majority of patients who are told they have bowel cancer, surgery will be an important part of their treatment plan and still provides the best possible chance of curing the disease.

Being diagnosed with bowel cancer comes as a terrible shock to most people. Many bowel cancer patients describe everything being “a bit of a blur” after they are told. Every instinct may be telling you to go ahead with any treatment that will help to remove or kill the cancer cells as soon as possible, but it is important to remember that bowel cancer grows fairly slowly.

Unless your diagnosis is discovered as the result of an emergency admission, you will safely be able to take a bit of time to consider all your options.

This booklet aims to take away the fear of the unknown by providing simple explanations about what will happen before, during and after your bowel cancer operation, as well as providing an overview of the different types of operation you may be offered.

Your hospital team

If you have noticed symptoms and been diagnosed as a result of referral to a specialist at the hospital, your case will be discussed at a multidisciplinary team meeting (MDT) and surgery may be decided on as the best option.

If your cancer is diagnosed following an emergency hospital admission, you may not know what your full diagnosis is, or be able to discuss your options in any detail before your operation. However, emergency patients will be discussed at a multidisciplinary team meeting after surgery.

Who else will look after me?

Unless advised otherwise, a colorectal nurse specialist (key worker) will be your main point of contact at the hospital. These specialist nurses usually work Monday – Friday, but have direct contact telephone numbers, so you can contact them easily or leave a message if you need them. If you are being considered for any kind of stoma (please see pages 12-13), you will be cared for by a stoma specialist nurse who will be able to offer you support and advice before and after your operation. Some hospitals may also have an enhanced recovery nurse who specialises in preparing you for surgery and helping your recovery.

Who will do my operation?

A surgeon who specialises in colorectal surgery should perform your operation. You will be referred to the nearest specialist surgeon and hospital where they have this expertise. You do also have the right to ask for a second opinion from another specialist if you want it. This should not delay the start of your treatment.
The principles of bowel cancer surgery have been established for many years. The section of the bowel that contains the cancer tumour is removed and the two open ends are joined up. The technical term for this method of joining up the two ends of the bowel is ‘anastomosis’. This technique, where the remaining ends of the bowel are fastened back together, uses special stitching techniques with dissolving stitches, or tiny staples. Sometimes, the join will need time to heal, and a stoma is formed, somewhere above it, to divert the flow of waste (poo). Your surgeon will usually remove all the lymph glands in the area at the same time, to check whether or not any of the cancer cells have spread out of the bowel.

**Treatment before surgery**

Some patients will need to have some treatment before their operation (called neo-adjuvant treatment). The aim of this treatment is to reduce the size of your tumour so that it can be removed as completely as possible. This is much more common in the case of rectal cancer, where the neo-adjuvant treatment will be in the form of radiotherapy and/or chemotherapy.

**Understanding bowel cancer**

**Planning your surgery**

**Deciding on the best operation for you**

Surgery still offers the best chance of a cure for bowel cancer. Even if you know that the cancer has been diagnosed at a later stage, try to think of your operation as a positive step on the way to treating your cancer. If your operation is planned, your surgeon will have time to discuss with you the best type of surgery for you. This depends on many factors, including where the tumour is located and any signs that it may have spread. The results of the tests you will have had (for example CT scan, colonoscopy, barium enema, ultrasound, MRI scan) will be discussed at the multidisciplinary team meeting where all the specialists involved in your care can tailor your treatment plan for the maximum chance of a cure. Treatment options will then be discussed with you.

Whether you are having keyhole or open surgery (see pages 14-15), ask your surgeon to explain all the options. There may well be more options in the case of rectal cancer.

**Informed consent**

Before having any surgery, the surgeon who is going to do the operation should explain to you why you need the operation. As part of the consent process they will also explain:

- what type of operation is being recommended for you
- what will be removed during the operation
- what the alternative options might be
- what the side effects and risks of the surgery might be
- what kind of wound you will have
- what to expect when you come back from the operating theatre
- how your pain and other needs will be managed
- what happens if you don’t want any treatment

It may be helpful to have someone with you who can help you to ask questions and take notes about what is being said. Once you are sure that you understand all this information and are happy that this is the right treatment for you, you will be asked to sign a consent form.
Enhanced recovery programme

Your hospital should be following an ‘enhanced recovery programme’ for colorectal patients who have laparoscopic (keyhole) surgery. This is also known as rapid, accelerated recovery or fast track surgery. Many elements of the programme are now also used as best practice for open surgery patients.

The aim of the enhanced recovery programme is to get you back to full health as quickly as possible after your operation. Research has shown that the earlier you get out of bed after surgery and start moving, eating and drinking, the quicker your recovery and the less likely that complications will develop.

Some of the benefits include:

- bowel function returns more quickly
- reduced chest infections
- a quicker return to usual mobility
- decreased fatigue
- reduced risk of developing blood clots after surgery

There may be cases where the programme is not suitable for you and, if so, the alternatives will be discussed with you.

The enhanced recovery programme depends on good communication between you and the hospital team and your cooperation to get yourself in the best possible health before your operation.

The surgeon will see you in outpatients to explain your operation. You will then be sent a date to attend the pre-operative assessment clinic and have some tests to ensure you are fit and prepared for surgery.

If you are on the enhanced recovery programme, a pre-assessment nurse or a specialist enhanced recovery nurse will see you when you attend the clinic and explain the programme to you and your family. You may also be referred to the anaesthetist, who will be responsible for the type of pain relief that you will be given immediately after surgery. The nurse will discuss your arrangements at home and if necessary make a plan for any help you may need after your operation.

Your nurse will also discuss diet and exercise with you, and may refer you to a dietician if you have lost a lot of weight. You may be given samples of nourishing supplement drinks to take before and during your hospital stay. This nutrition will help you to be in the best shape for your operation and can help with wound healing to reduce the risk of infection and aid your overall recovery.

You will be given advice on keeping active before your hospital stay and if you smoke, now is a good time to stop.

Remember

At your pre-assessment appointment you will have a chance to meet your colorectal nurse specialist and/or stoma nurse specialist, so if you have any questions or concerns, this is a good time to ask them.
These are items that members of our online forum have recommended to pack in your case:

### Toiletries
- body wash
- deodorant
- toothbrush and toothpaste
- moisturising cream
- lip balm
- tissues
- nail file and hand cream
- flannel

### Clothing
- nightie/pyjamas
- dressing gown
- slippers
- underwear
- socks

### Entertainment
- phone
- Kindle
- iPad and chargers
- double plug adaptor
- puzzle books
- notebook and pen
- books
- magazines

### Food and drink
- chewing gum and/or peppermint tea bags (to relieve wind and pain)
- snacks

### Sleep aids
- eye mask
- ear plugs with expanding foam

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**Going into hospital**

Depending on whether or not you are on an enhanced recovery programme, patients having planned bowel surgery may be admitted to hospital one or two days beforehand, or may come into hospital on the day of the surgery. Your specialist team will ensure you are given a pack with all the information you need, so you arrive on the correct day at the right time. They will also give you some information about what to take with you to make your stay more comfortable.

The nursing staff will show you around the ward and allow you to familiarise yourself with your surroundings. They will take you through the admissions process. They will also be able to answer any questions you might have about visiting times, and put your mind at rest over any other worries you might have.

**Before surgery**

You will be able to eat up to six hours before your operation. However, you may be required to take a preparation to clear your bowel before surgery. The bowel preparation will vary from hospital to hospital, depending on local policy and the type of surgery. You may be given medication to clear out the bowel or just a couple of laxative tablets the night before. Alternatively, you may be given an enema on the day of surgery. It is important to drink plenty of water or clear fluid to keep yourself hydrated. You may be given special 'pre-op' carbohydrate drinks the night before and on the morning of your operation.

To prevent blood clots, you will be given support stockings (known as TEDS), which gently compress your legs. You will also be given a daily injection to thin your blood.
The aim of surgery is to remove the bowel cancer along with normal tissue around it (called a margin), making sure that the remaining bowel still has a good blood supply. Sometimes, quite a large section of bowel needs to be removed in order to achieve this.

The most common types of surgery are:

1. **Right hemi-colectomy** where the right half of the bowel is removed.
2. **Left hemi-colectomy** where the left half of the bowel is removed.
3. **Abdomino-perineal resection** where the rectum and the anus (including the sphincter muscles) are removed and a new kind of permanent bowel opening is made on the lower left-hand side of the surface of the abdomen called a stoma (colostomy) (see page 12).
4. **Anterior resection** where cancer in the rectum or sigmoid colon is removed. Depending on the position of the tumour in your rectum, you may need a high anterior resection A or a low anterior resection B. Doing a total mesorectal excision at the same time is the gold standard and has been shown to reduce the risk of a recurrence. It involves removing all the visible cancer and surrounding fatty tissue in the pelvis around the rectum, to check the lymph nodes for signs of spread.
   - Patients who have an anterior resection often need to have a temporary stoma (ileostomy) for a few weeks or months to allow the join in the rectum to heal. The opening onto the abdomen for this is usually on the right-hand side (see page 12).
5. **Hartmann’s procedure** where the sigmoid colon and upper rectum are removed, and an end colostomy formed.
6. **Sub-total colectomy** where the entire colon is removed, leaving behind the rectum. This will result in either a permanent ileostomy or your small bowel will be joined to your rectum.
7. **Pan proctocolectomy** where the colon, rectum and anus are removed, and results in a permanent ileostomy.

Other, less common types of surgery you might be offered are:

- **Transanal surgery** can be suitable for small, very early cancers (T1 and T2 tumours) in the rectum and is a minimally invasive technique. The procedure is carried out through the anus using a sigmoidoscopy (type of telescope) connected to a light source and high-resolution monitor. The tumour is removed using specialist forceps and diathermy (to seal the blood vessels). This technique is not available in every hospital, but you can request to be referred to a specialist centre if your multidisciplinary team feels that you might be a suitable candidate.
About ileostomy

An ileostomy is a stoma formed by bringing the end or a loop of the small bowel (ileum) out on to the surface of your abdomen. Waste (often referred to as ‘output’) passes out of the ileostomy and is collected in an external pouch (generally known as an ileostomy bag). Ileostomies are often formed to allow the area to rest and heal after surgery. The waste produced is usually liquid rather than solid.

About colostomy

A colostomy is a stoma formed by bringing part of your colon (large bowel) out on to the surface of your abdomen. The waste from a colostomy is usually more formed than from an ileostomy, as it has had some of the water removed on its way around the bowel. The waste passes out of the colostomy and is collected in an external pouch (generally known as a colostomy bag).

Stoma support

Your surgeon or specialist nurse will explain why you need a stoma, what type of stoma you might have and how long you might need it for. Before your surgery, you will meet your stoma care nurse. They will tell you how to look after your stoma and answer any questions you may have. It’s not always possible to know 100% if you will need a stoma before your operation, as the decision can sometimes only be made during the surgery. You can contact your stoma care nurse for support at any time before or after your surgery.

Stoma reversal

Your stoma may either be permanent (if there is no longer enough bowel left to make a continuous pathway from the healthy bowel to the anus) or temporary. If you have a temporary stoma, you will usually have another operation to reverse it. Your healthcare team will tell you when this is likely to happen. Some people have their stomas reversed after a few months, while others have their stomas for several years before they have a reversal. It can take a while for your bowel function to return to normal after your stoma is reversed.

Remember

An ileostomy or colostomy should not prevent you leading a full and normal life. You will be supported by a stoma team, before and immediately after surgery, and in the longer term in your home or a follow-up clinic.

I had a stoma fitted and at first I was all ‘fingers and thumbs’ but the stoma team made sure I was able to measure and fit a new stoma pouch before leaving hospital. I went home twelve days after my surgery having had all the care and support that I could have wished for.

Jackie
Keyhole surgery

Some patients may now be given the option to have their operation done using keyhole (laparoscopic) surgery. This specialised surgery is done with a number of smaller cuts on the abdominal wall (tummy) and the tumour is removed using a telescope with precision equipment viewed on video screens. Some specialised centres can also do Single Incision Laparoscopic Surgery (SILS).

New techniques such as Transanal Total Mesorectal Excision allow more complex operations to be done, even for very low rectal cancers. This technique minimises damage to the anal sphincter, or the need to remove the anus completely, which would result in a permanent colostomy.

Advantages:
- Patients can usually eat and drink more quickly after surgery
- Fewer problems getting up and mobile again
- Tend to recover more quickly after the operation
- Usually go home within three – five days if there are no other complications
- Full recovery within three – six weeks, depending on individual circumstances

Disadvantages:
- Not all hospitals/surgeons offer this type of surgery
- Not all patients are suitable for keyhole surgery, especially if the tumour is too large or difficult to access and remove
- Unexpected complications during surgery can mean an open operation is needed to complete the removal of all the visible cancer safely and effectively

Open surgery

Open surgery (laparotomy)

Open surgery will be offered if your hospital does not have laparoscopic surgeons, if you are admitted for emergency bowel surgery, or if the tumour is too large or difficult to access. If you are obese you are more likely to have open surgery.

Advantages:
- Well-established techniques
- Widely available across the UK
- Surgeon can see whole abdomen

Disadvantages:
- Larger wound, longer healing time
- Hospital stay can be six – nine days
- Slower recovery time

I had keyhole surgery within a few weeks of my diagnosis. I’ve now made a good recovery, I’m under regular surveillance and cancer free. The follow-up visits with the colonoscopy nurses are very supportive and caring.

David

Did you know?

The length and direction of the cut on your tummy will depend on where your tumour is.
After surgery

After your surgery, you may well remain in the recovery area for several hours to ensure you are stable. You may then spend a few hours in a high-dependency unit before being transferred back to your ward.

Post-operative routines have changed a lot in the past few years, mainly due to the research which has led to the enhanced recovery programme. Getting patients moving and eating normally as soon as possible after their operation reduces complications and helps them to recover more quickly. Whether you are on an enhanced recovery programme or not, you will receive similar care.

On return to the ward you will have a drip in your arm to replace fluids and you may have a tube into your bladder (catheter) for a day or two. This is important as it allows monitoring of your urine output. These will be removed as soon as you are able to eat and drink.

You will be encouraged to eat and drink soon after your return to the ward. Most people find that small meals and bland, low-fibre foods are easier to digest initially.

You may be given some more supplement drinks. Recent studies have shown that chewing gum can help your bowel to return to its normal function. It can also help relieve trapped wind and the colicky pains that you might experience after bowel surgery.

If you have an ileostomy or colostomy, you will be visited on a regular basis by the stoma nurse specialist who will help you to learn how to care for your stoma and give you more specific dietary advice. If you did not need a stoma, you may find your bowel can take a few days to start to work properly. This is to be expected at this stage. Initially your bowel movements may vary in consistency, frequency and urgency. Your medical team may prescribe you some medication that can help with this. Things will settle down in most cases, as you return to your normal activities of daily living.

Pain relief is very important. It will help you to get up and move around comfortably and speed up your recovery. It is important to let the team know if you feel your pain is not controlled. You will be encouraged to sit out of bed soon after your operation, and to walk around the ward several times a day as soon as you are able.

To prevent blood clots you will be given compression stockings and daily blood thinning injections. You should also do frequent leg exercises (rotating the feet and pushing the feet up and down) while sitting in a chair or lying in bed.

The nurse or physiotherapist will show you how to do deep breathing exercises until you are up and about. These exercises will help clear secretions from your lungs and help prevent a chest infection. Patients are sometimes worried about coughing, but this is a good way of clearing your chest. It is best to gently support your abdomen with a towel or pillow so it is more comfortable to cough.

Once you are eating and drinking, walking around the ward (and able to go upstairs if you need to do this at home), your wound is healing well and you are managing your stoma if applicable, your consultant will be happy for you to go home.
Recovering at home

Going home is a milestone in your recovery but it will still take some time for your energy levels to improve, your appetite to come back and bowel control to become more regular again. It is often said that it will take at least six weeks or so to start feeling back to normal. Once home, your first point of contact for any concerns you may have is still your colorectal nurse specialist. If they are not available for any reason, you should contact your GP.

If you have a stoma, you will be given the contact details of the stoma nurse who may also see you at home after discharge or she may refer you to a community stoma nurse who can visit you at home. This is important as you adjust to caring for your stoma.

In the first few days, you may find even simple tasks exhausting. It is common to feel very tired and to need to sleep and rest much more frequently. This can be due to a combination of things, including side effects of the anaesthetic, lack of sleep while you were in hospital, the side effects of your pain killers or discomfort from the surgery itself.

It is also common to feel low at times, not only because of the physical effects on your body, but also because you are coming to terms with a diagnosis of bowel cancer. It is often not until you come home from the hospital that you have time and space to think about everything that has gone on in the last few weeks. Talking to friends and family about how you are feeling can help, but if things don’t improve, you should have a chat with your nurse.

Exercises you have been given by your physiotherapist will help you to gain strength. Do get out of bed each day and get dressed, it is good for your morale and encourages a sense of getting better. Try some gentle exercise such as walking to the shops for a newspaper, but don’t attempt a big supermarket run. Heavy domestic chores such as gardening, hoovering and strenuous physical exercise should be avoided for at least six – 10 weeks.

Start with light meals and eat them slowly. A large plate of food can be off-putting, so try small, nutritious meals and then build up to normal portions. Drink plenty of fluids and eat nutritious snacks throughout the day to increase your calorie intake, giving your body the extra energy it needs to heal.

If your bowels really aren’t settling into a new routine or you are experiencing ongoing weight loss, do talk to your surgeon or nurse. They may recommend referring you to a dietician or prescribe medication to control the symptoms.

If you experience any of these symptoms, which may be the result of an infection:

- A high temperature
- Unable to eat or drink for any reason
- Persistent diarrhoea, nausea or vomiting
- Constipation for three days or more
- Pain, swelling, redness or unexpected leakage around your wound or stoma

Remember

I’m still conscious of my operation and continue to monitor my health and lifestyle. I walk regularly and spend time in the garden, but don’t overexert myself. I now eat more fruit and vegetables and drink less alcohol. At the moment, I feel great and try to always maintain a positive outlook, aided in no small way by the fantastic support I’ve received from my family and close friends throughout this time.

Bruce
Your pathology report

The final report and cancer staging

It usually takes about 10-14 days after the operation for the final report to come from the pathologist, assessing all the tissue and tumours that were removed by the surgeon. This helps your specialist team advise you whether further treatment might be necessary. Treatment after surgery is called adjuvant treatment. This may be offered with the intention to reduce the risk of the cancer returning.

Further treatment

Early stage bowel cancer

Patients with stage 1 bowel cancer will not have additional treatment after surgery. Patients who have stage 2 bowel cancer – where there is no evidence that the cancer has broken through the bowel into the pelvis or lymph nodes – may not need to have any further treatment. However, in some circumstances, where the tumour is larger or invading deeper within the bowel wall, additional treatment may be offered to 'mop up' any cancer cells that may be left in the body, which the surgeon could not see.

If the cancer has spread

Patients with stage 3 bowel cancer are nearly always offered further treatment because the cancer has spread from the bowel into lymph nodes in the pelvis. There is good evidence that adjuvant treatment reduces the risk of recurrence by 23%.

Cancer that has spread to distant parts of the body is classified as stage 4. Bowel cancer can spread to organs such as the liver or lungs, as well as locally into the pelvis. You will usually be referred to an oncologist and offered further treatment such as chemotherapy to shrink the tumours. You should remain under the care of a specialist with experience of treating such cancers in that particular organ.

You may also be offered further surgery to remove these tumour(s) at a specialist centre, or as part of approved clinical trials.
Useful contacts

Colostomy UK

W colostomyuk.org
T 0800 328 4257

IA Support Group

W iasupport.org
T 0800 0184 724

Bladder & Bowel Community

W bladderandbowel.org
T 01926 357 220

RADAR

Specialist keys for secure public toilets, and regional lists of locations
W disabilityrightsuk.org
T 020 7250 3222

Further support

Online community
Our online community is a welcoming place for everyone affected by bowel cancer to ask questions, read about people’s experiences and support each other. Join us at bowelcanceruk.org.uk/community

Ask the Nurse
If you have any questions about bowel cancer, contact our nurses at bowelcanceruk.org.uk/nurse

Publications
We produce a range of expert information to support anyone affected by bowel cancer. Order or download our free publications at bowelcanceruk.org.uk/ourpublications

Website
Visit our website for a range of information about bowel cancer including symptoms, risk factors, screening, diagnosis, treatment and living with and beyond the disease. Visit bowelcanceruk.org.uk
Bowel Cancer UK is the UK’s leading bowel cancer charity. We’re determined to save lives and improve the quality of life of everyone affected by the disease.

We support and fund targeted research, provide expert information and support to patients and their families, educate the public and professionals about bowel cancer and campaign for early diagnosis and access to best treatment and care.

To donate or find out more visit bowelcanceruk.org.uk

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Please contact us if you have any comments about the information in this booklet: feedback@bowelcanceruk.org.uk