Cancer of the colon: investigations, diagnosis and treatment

The Colorectal Nursing Service
Patient Information Leaflet
Contents

Your Colorectal Team 3
Introduction 4
What is cancer? 4
What is the large bowel? 5
Colorectal cancer 6
What are the symptoms of colon cancer? 6
How do we know that you have colon cancer? 7
  • Blood tests 7
  • Barium enema 7
  • Sigmoidoscopy 8
  • Colonoscopy 8
  • CT scan or CT cologram 9
What happens after I have had all my tests and investigations? 10
The role of the colorectal cancer multidisciplinary team 10
The colorectal multidisciplinary team 11
Staging the disease 12
What treatment options are there? 14
  • Surgery 14
  • Chemotherapy 14
  • What alternative treatments are there? 16
  • Complementary therapies 17
What treatment will I have if I have advanced colorectal cancer? 18
Money and financial support 18
Prescriptions 18
Follow up care 19
What other support is available to me? 19
Where can I get more information? 20
Glossary of terms 23
Colorectal clinical nurse specialists contact details 29
Your Colorectal Team

Consultant leading your care:

........................................................................................................

Your colorectal/stoma nurse/key worker leading your nursing care:

........................................................................................................

Other doctors that may be involved in your care:

........................................................................................................
Introduction
Your hospital doctor may have explained that you have a possible cancer of the colon that requires further investigations to stage the disease.

This booklet aims to provide information to help you understand more about cancer of the colon, investigations that you may need and any proposed forms of treatment. We hope you find it useful and that it will help you understand the care you will receive.

At the end of this booklet you will find a glossary of terms to help you and a list of useful organisations you may wish to contact to gain further information or support.

If you think that reading this booklet has helped you, you may want to pass it on to your family and/or friends who might find it useful. They too may want to be informed so that they can support you and help you cope with any problems you may have.

What is cancer?
The tissues and organs of the body are made up of tiny building blocks called cells. These cells repair and reproduce themselves continually as they age and become damaged.

Sometimes during this process normal cells become abnormal and as they continue to reproduce (divide) they develop into a tumour. Tumours can either be cancerous (malignant) or non-cancerous (benign).

In a benign tumour, the cells do not spread to other parts of the body. However if they continue to grow, they may cause a problem by putting pressure on the surrounding organs or causing a blockage, for example in the bowel.

A malignant tumour consists of cancer cells that have the ability to spread away from the original site. If the tumour is left untreated, it may invade and destroy the surrounding tissue. If cells break away from the original cancer (the primary one) they can spread to other organs of the body through the bloodstream. When these cells reach a new site, they may continue to grow and form a new tumour (a secondary cancer or metastasis).
**What is the large bowel?**

The large bowel is made up of the colon and rectum. It is the last part of the intestines and forms part of our digestive system (see Figure 1). The food we eat travels from the mouth to the stomach and then passes through the small bowel where essential nutrients are absorbed into the bloodstream. The digested food then enters the large bowel and the colon absorbs water from it.

The colon runs up the right side of the abdomen, across the abdomen and down the left side ending in a wider portion called the rectum (back passage). As the colon absorbs water from the faeces it becomes more solid and is eventually passed from the body through the anus as a bowel motion.

**Figure 1 – the digestive system from the oesophagus (food pipe) to the anus**
Colorectal cancer

Colorectal cancer is the third most common cancer in the UK after breast and lung cancer, with approximately 40,700 new cases diagnosed in 2010 in the UK (Cancer Research UK, 2013).

Occurrence of colorectal cancer is strongly related to age, with almost three-quarters of cases occurring in people aged 65 years or over. Colorectal cancer is the second most common cause of cancer death in the UK after lung cancer (Cancer Research UK, 2013).

People with a strong family history of colorectal cancer affecting people below 40 years of age have an increased risk of developing the disease.

People with some long standing inflammatory diseases of the bowel, such as Crohn’s disease or ulcerative colitis may also have an increased risk of developing colorectal cancer.

People who have a rare genetic condition known as Familial Adenomatous Polyposis (FAP) or Adenomatous Polyposis Coli, in which benign tumours called polyps are found in the lining of the colon, have an increased risk of developing bowel cancer.

There are many different kinds of cancer. Colorectal cancer is cancer of the colon (large bowel) and rectum (back passage). Cancer of the colon and the treatment of it will be outlined in this booklet.

What are the symptoms of colon cancer?

Colon cancer can cause many symptoms which may include any of the following:

A change in bowel habit – symptoms can include going to the toilet more often and looser motions, perhaps alternating with periods of constipation. You may see dark blood in the motion or pass mucus.

Bleeding – rectal bleeding that persists. The most common sign is blood in or on the stools.
Other symptoms – other signs are unexplained weight loss, tiredness or breathlessness without obvious reason (usually due to anaemia from loss of blood). Some people feel a lump in the tummy.

How do we know that you have colon cancer?
The following tests and investigations are all used to make a diagnosis of colon cancer. They will allow us to determine the extent of your problem and plan your treatment.

Although we are aiming to identify your colon cancer, it is important that we also look at all of your large bowel and other organs that might be affected by this cancer. This can be achieved or a variety of different ways. The tests will be selected depending on your individual circumstances.

Blood tests
Your consultant will request routine blood tests such as:

- Hb (haemoglobin) or a FBC (full blood count) to check for anaemia and any other problems
- U&E (urea and electrolytes) to check how well your kidneys are working
- CEA (carcinoembryonic antigen) which can give an indication of active bowel cancer and is used for diagnosis together with other diagnostic tests.

Barium enema
This is an examination using barium to outline the whole bowel which then shows up on X-rays. It will be done in the hospital X-ray department.

It is important that the bowel is empty for the test so that a clear picture can be seen, therefore you will be asked to take a preparation the day before your test to empty your bowel, and to drink plenty of fluids.

On the day of your barium enema you will not be able to eat anything until after the test has been completed. The X-ray department will send you an instruction sheet with more information about this.
For the test a small tube is placed in the anus and liquid barium and some air are put into your bowel through this tube. It is important to keep the mixture in the bowel until all the X-rays have been taken. The barium outlines the bowel and X-rays are taken to show up any abnormal areas.

For a couple of days after the test you may notice that your stools are white. This is the barium coming out of your body and is nothing to worry about.

**Sigmoidoscopy**
This test allows the doctor to look at the inside of the rectum and lower part of the large bowel. It is usually done in the hospital outpatients department or gastrointestinal unit (GI unit).

For the test you will be asked to lie curled up on your left side and then the doctor will gently pass a tube into your back passage. A small hand pump is attached to the tube so that air can be pumped into the bowel. With the assistance of a light on the inside of the tube, the doctor can see any abnormalities. If necessary, a small sample of tissue (called a biopsy) can be taken painlessly for examination under a microscope to check for cancer cells.

**Colonoscopy**
If your consultant wants to look inside the whole length of the large bowel you may have a colonoscopy. This will usually be done in the GI unit.

For this test the bowel has to be completely empty which means taking a preparation similar to that used for the barium enema. The hospital will provide you with this and also the instructions of how and when to take it.

Just before the test you will be given a mild sedative into a vein to help you relax. You will be asked to lie on your side and the doctor will gently pass a flexible tube into your back passage which can pass around the curves of the bowel. A light on the inside of the tube helps the doctor to see any abnormal areas and allows photographs and samples (biopsies) to be taken from inside the large bowel.
Most patients remember very little about the procedure afterwards. As you will be sedated for the procedure:

- You will need to arrange for a responsible adult to take you home afterwards, either by car or taxi. You will not be allowed to go home on public transport.
- Someone should stay with you overnight.
- You cannot by law be in charge of a motor vehicle or moving machinery for 24 hours afterwards.

The sedation we give patients before a colonoscopy relaxes and makes you comfortable but it may affect your memory for up to 24 hours afterwards. You may not remember information given to you by the doctor but we will give you a report to take home.

The effect of the sedation may be prolonged by other medication you are taking. This will be discussed with you when you come for the procedure.

**CT scan or CT colonogram**

Special scans are used to produce pictures as if the body were sliced across. The scan gives information about the rectal tumour that helps the doctor plan your treatment.

For the CT scan you will usually be asked to arrive before the scan time so that you can drink some special fluid beforehand to highlight the bowel on the scan pictures.

If you are having a CT colonogram you will be sent the fluid beforehand to drink over several days along with some mild laxatives as your bowel will need to be clear for the scan.

Before the scan starts you will usually be given an injection of contrast dye into a vein in your arm – this highlights the blood vessels and certain organs on the pictures. In addition, if you are having a CT colonogram a very small flexible tube will be passed into your back passage so that air can be gently pumped into your colon. This helps open the colon as much as possible to open any folds which might hide any polyps or growths.
The scanner itself looks like a large ‘Polo Mint’ as it has a hole in the middle and during the scan you will lie on a table that moves through the hole. You will be in the scanner room for several minutes and many pictures are generated. A doctor (known as a radiologist) will look at these afterwards but interpreting them takes a while so the report is sent to your specialist later.

**What happens after I have had all my tests and investigations?**
The findings of your tests and any biopsies will be discussed in a colorectal cancer multidisciplinary team (MDT) meeting by your consultant and a treatment plan will be created for you (please see section on ‘What treatment options are there?’ for more information about this).

Sometimes as a result of discussions in the MDT meeting, you may need to have more investigations. If this is the case, your consultant or specialist nurse will contact you to discuss this.

**The role of the colorectal cancer multidisciplinary team**
NHS guidelines state that “everyone diagnosed with colorectal cancer should be under the care of a multidisciplinary team”. This is a team of health professionals who work together to discuss your case and how best to manage your treatment, the benefits of treatments available and the most appropriate types of treatment to meet your individual needs.

The colorectal cancer multidisciplinary team meetings are held on Monday lunchtimes (except for bank holidays). Your case will be discussed when all your investigations have been completed and a treatment plan will be created for you.

This treatment plan will be discussed with you in the outpatients department by the consultant who will be in charge of your treatment (this may be different to the consultant you saw in the first instance) and your specialist nurse. You will be contacted by telephone either by the consultant’s secretary or your specialist nurse with the time for this appointment.
The colorectal multidisciplinary team

Consultant colorectal surgeons
Mr Kawesha, Mr Patel, Mr Oluwajobi, Mr Stonelake, Miss MacLeod

Consultant gastroenterologists
Dr Fisher, Professor Ishaq, Dr Shetty, Dr De Silva, Dr Mahmood

Consultant Pathologists
Dr Shinde, Dr Sharif, Dr Grami

Consultant Radiologists
Dr Hall

Consultant Medical Oncologist
Dr Grumett

Consultant Clinical Oncologist (Chemo/DXT)
Dr Habib Khan

Clinical Nurse Specialist
Kath Parry

Colorectal/Stomacare Sisters
Sam Cook, Helen Hill, Janet Whittaker, Rebekah Danvers

Stomacare Support Worker
Amanda Chater

MDT Co-ordinator
Denise Weaver

Colorectal/Stomacare Secretary
Mandy Clarke
Staging the disease
Your treatment will depend on the stage of disease at time of diagnosis. In order to stage the disease the specialists use the findings from the tests and biopsies and to look at the characteristics of the tumour, whether the cancer has spread and if so, where it has spread to. There are two standard systems used to stage bowel disease and these are the Dukes Grading System and the Tumour, Node and Metastasis (TNM) system.

The Dukes Grading System
The stages of the Dukes Grading System are described in the following table:

<table>
<thead>
<tr>
<th>Dukes stage</th>
<th>Extent of cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cancer is confined to the wall of the bowel</td>
</tr>
<tr>
<td>B</td>
<td>Cancer has spread through the wall of the bowel</td>
</tr>
<tr>
<td>C</td>
<td>Cancer has spread to the lymph nodes</td>
</tr>
<tr>
<td>D</td>
<td>Cancer has spread to other organs</td>
</tr>
</tbody>
</table>
The TNM staging system
This more detailed staging system describes the size of the primary tumour (T), whether any lymph nodes contain cancer cells (N), and whether the cancer has spread to another part of the body (M).

<table>
<thead>
<tr>
<th>T stage</th>
<th>Extent of cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Tumour is only in the inner layer of the bowel</td>
</tr>
<tr>
<td>T2</td>
<td>Tumour has grown into the muscle layer of the bowel wall</td>
</tr>
<tr>
<td>T3</td>
<td>Tumour has grown into the outer lining of the bowel wall</td>
</tr>
<tr>
<td>T4</td>
<td>Tumour has grown through the outer lining of the bowel wall. It may have grown into another part of the bowel, or other nearby organs or structures. Or it may have broken through the membrane covering the outside of the bowel (the peritoneum)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N stage</th>
<th>Extent of cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
<td>There are no lymph nodes containing cancer cells</td>
</tr>
<tr>
<td>N1</td>
<td>One to three lymph nodes close to the bowel contain cancer cells</td>
</tr>
<tr>
<td>N2</td>
<td>There are cancer cells in four or more nearby lymph nodes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M stage</th>
<th>Extent of cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
<td>Cancer has not spread to other organs</td>
</tr>
<tr>
<td>M1</td>
<td>Cancer has spread to other parts of the body</td>
</tr>
</tbody>
</table>
What treatment options are there?  
Surgery is usually the first treatment for colon cancer however this will depend on the stage of your disease. Your consultant will discuss your specific treatment plan with you.

Clinical trials  
Depending on the outcome of the MDT meeting you may be asked if you want to participate in a clinical trial before surgery. This will be explained firstly by your colorectal surgeon at your outpatient appointment and then in more detail by the appropriate oncologist (doctor specialising in cancer treatment).

Surgery  
Your consultant will explain the surgical procedure to you with the aid of a diagram. You may be offered laparoscopic surgery, otherwise known as keyhole surgery. This type of surgery reduces discomfort after surgery, minimises scarring and reduces your hospital stay, although the risks are the same as that of open surgery.

Your specialist nurse will give you written information about it and will answer any queries or questions you may have.

After surgery  
When the part of the bowel containing the cancer has been examined by the pathologist your results will be discussed in the next available MDT meeting where it will be decided if further treatment in the form of chemotherapy is advisable.

If this is the case you will be referred to a medical oncologist who will discuss this treatment with you in more detail at an outpatient appointment.

In addition, you will have an appointment about four weeks after your surgery where your consultant surgeon will discuss your results with you.

Chemotherapy  
The specialists trained extensively to use chemotherapy drugs are called medical oncologists.
Chemotherapy is the use of special anti-cancer drugs (known as cytotoxic drugs) to destroy cancer cells. They are usually given by injection into a vein in the back of the hand or into a Hickman Line. This is a tube which avoids the need for needles and goes into a vein below the collar bone. Nearly all chemotherapy is given as a day case procedure where you only have to be at hospital for the day.

The reasons for giving chemotherapy are as follows:

1) to shrink the tumour and make it easier to remove during surgery (which we call neo adjuvant chemotherapy)
2) to increase the chance of a cure after surgery (which we call adjuvant chemotherapy)
3) to treat advanced disease and prolong life (which we call palliative chemotherapy)

Neo adjuvant and adjuvant chemotherapy saves many lives and if appropriate to your care, may form part of your treatment plan.

You may have just one drug or a combination of drugs. The main chemotherapy drug used to treat colorectal cancer is called 5-fluorouracil (or 5FU) and it is usually given with the vitamin folinic acid or with other chemotherapy drugs. It can be given as an infusion (drip) for 48 hours, daily or at weekly intervals initially. The dosage will depend on the condition being treated and whether or not other drugs are being given to you.

Other drugs which may be used are irinotecan and oxaliplatin. Irinotecan kills the rapidly multiplying cells that make up a cancer. For patients receiving their first course of chemotherapy for colorectal cancer, it is usually given every two weeks and can also be used in conjunction with other anti-cancer drugs.

Oxaliplatin is normally given with 5FU. It is a platinum-based chemotherapy drug given to treat metastatic colorectal cancer (cancer which has spread). It has also been recommended by National Institute of Clinical Excellence (NICE) to shrink secondary tumours in the liver and can lead to potentially curable surgery for some people.
It can be given every two or three weeks as a course of treatment. The number of courses you have will depend on the type of cancer you have and how well it is responding to the drugs, but the treatment is generally given for six to 24 doses over three months to a year.

The administration of these drugs will depend on the results of blood tests taken on the day of treatment and the state of your health.

If the cancer starts to grow again, during or after the chemotherapy, you may be given a different type of chemotherapy drug (this is known as second line treatment).

Several research trials are being carried out to find the best type of chemotherapy for colorectal cancer. You may be asked if you want to take part in one of these trials using new chemotherapy drugs or new types of treatments.

**Will I suffer from any side effects?**
Some people experience very few side effects and even those who do suffer from them will only have these temporarily during treatment.

Some of the more common side effects include reduced resistance to infection, tiredness, hair loss, mouth ulcers, nausea and diarrhoea (however nausea and diarrhoea can usually be well controlled with medicine). Some people also experience soreness and redness on the palms of their hands and soles of their feet.

You should talk to your medical oncologist about any side effects from the chemotherapy drugs.

**What alternative treatments are there?**
Self-expanding metal stents (SEMS) are metallic tubes (or stents) used to hold open the bowel if it is obstructed by a tumour so that stools can pass through. They can provide rapid relief of distressing symptoms in patients not considered fit for surgery or for those who have symptoms of bowel obstruction which need to be treated urgently.
This treatment may be provided before any detailed investigations have been carried out and may allow a patient’s condition to be stabilised before a longer term treatment plan can be created.

SEMS are being increasingly used for patients with a bowel obstruction as they are considered to be a safe and effective way of achieving relief in patients with advanced colorectal cancer.

Although they are considered to be convenient and safe, several complications have been reported. The complications depend on where the stent is located in the bowel and include stent obstruction and movement, perforation of the colon/rectum, impacted stools, bleeding, abdominal pain and the constant feeling of wanting to pass stools. However, complications are usually minor in the majority of patients and, if treated, usually only last about 48 hours.

Stenting carries a mortality rate (rate of deaths) of around two per cent, however it should be remembered that this is a lower risk than the twenty per cent mortality rate associated with emergency surgery.

**Complementary therapies**
Complementary therapies are natural therapies which can be used with conventional medical and nursing treatments. However, they should not replace traditional care.

Complementary therapies include a number of different treatment kinds such as counselling, acupuncture, aromatherapy, homeopathy, meditation, visualisation, healing, relaxation, massage, osteopathy, reflexology, hypnosis and dietary treatments.

The aim of these therapies is to relieve physical symptoms and help emotional reactions including stress and anxiety and therefore enhance wellbeing. Frequent symptoms that complementary therapies aim to improve are flatulence (passing wind), sleep disorders, tiredness, worry and pain.

In every instance, it is recommended that you use a suitably qualified practitioner to give you the complementary therapies and it is strongly advised that you speak to your consultant before starting a course of therapy to ensure that it will not interfere with your other treatments.
Cancer Support in Dudley provides a wide range of complementary therapies for both patients and their family and carers. They have specific knowledge and expertise concerning cancer related issues (see list of addresses for contact details). Your specialist nurse/key worker will be happy to give you their contact details.

**Which treatment will I have if I have advanced colorectal cancer?**

Advanced colorectal cancer means the cancer has spread from where it started in the bowel or back passage to other parts of the body such as the liver or lungs. Your cancer may be advanced when it is first diagnosed, or it may come back some time after you are first treated. Once a bowel cancer has spread to another part of the body, it is unlikely to be curable but treatment can often keep it under control for quite a long time.

The choice of treatment depends on the cancer type, the number of secondary cancers and where they are, and the treatment you have already had. Surgery can be used in some situations to treat advanced colorectal cancer and often result in a stoma (e.g. a colostomy). Chemotherapy can sometimes be used to shrink a cancer and control symptoms.

**Money and financial support**

Some people may experience financial problems due to their illness or operation. If this is the case, support may be available. Advice can be provided by the Citizens Advice Bureau or Macmillan Cancer Support, whose contact details are in the list of useful addresses at the back of this booklet. Alternatively you may want to discuss this with your colorectal specialist nurse.

**Prescriptions**

People with cancer in England can have free prescriptions. If you are having treatment for cancer, or the effects of cancer or its treatment, you can apply for an exemption certificate by collecting form FP92A from your GP surgery or oncology clinic.
Follow up care
You will have follow up appointments for up to five years which will often include a physical examination, blood tests including for the carcinoembryonic antigen (CEA) and visualisation of the colon (colonoscopy) and CT scans. Your consultant will inform you when he plans to do these tests.

Throughout the follow up period, you can contact the Colorectal Clinical Nurse Specialists on Tel: 01384 244286. If we are not in, please leave a message on our 24-hour private answering machine and we will get back to you.

What other support is available to me?
Most people feel overwhelmed when they are told that they have cancer. Many different emotions arise which can cause confusion and frequent changes in mood, and everyone experiences this differently. These emotions are part of the process that people go through in trying to come to terms with their illness. Friends and family often experience similar emotions and need support and guidance too.

It is important to remember that there are people available to help you and your family. Your specialist nurse/key worker would be very pleased to help you. They may suggest they undertake an action plan to work through your anxieties with you or if necessary refer you on to an appropriate specialist. You may find it easier to talk to someone who is not directly involved with your illness and so you might find it helpful to talk to a counsellor.

You may also want to get together with other people who are in or who have been in a similar position to yourself. Cancer Support at The White House in Dudley are able to offer information, relaxation and support when needed. Anyone who is newly diagnosed with cancer is welcome to contact them. Partners are also welcome. Their address and contact details are included in the list of useful addresses at the end of this booklet, or you can ask your specialist nurse or key worker for their contact details.
Where can I get more information?
Here is a list of useful addresses and contact details:

Beating Bowel Cancer
Harlequin House
7 High Street
Teddington
TW11 8EE
Telephone: 020 8973 0011
Website: www.beatingbowelcancer.org.uk

Benefit Shop
35 Churchill Shopping Centre
Dudley
West Midlands
DY2 7BL
Telephone: 01384 812639

Cancer Support
The White House
10 Ednam Road
Dudley
West Midlands
DY1 1JX
Telephone: 01384 231232
Answerphone: 01384 456093
Fax: 01384 459975
Email: info@support4cancer.org.uk
Website: www.support4cancer.org.uk

Cancer Research UK
Angel Building
407 St John Street
London
EC1V 4AD
Telephone: 020 7242 0200
Website: www.cancerresearchuk.org
Citizens Advice Bureau
Website: www.citizensadvice.org.uk

Citizens Advice Bureau – Dudley Branch
Telephone: 01384 816222
Email: dudleybureau@dudleycabx.org

Colon Cancer Concern
Website: www.coloncancer.org.uk

Colostomy Association
Enterprise House
95 London Street
Reading
RG1 4QA
Telephone: 0800 328 4257
Website: www.colostomyassociation.org.uk

Crohn’s and Colitis UK
4 Beaumont House
Sutton Road
St. Albans
Hertfordshire
AL1 5HH
Telephone: 01727 830038 (9am to 5pm)
Website: www.crohnsandcolitis.org.uk

Ileostomy and Internal Pouch Support Group
Peverill House
1-5 Mill Road
Ballyclare
BT39 9DR
Telephone: 0800 0184 724
Website: www.iasupport.org.uk
Ileostomy Association Stourbridge Branch
Lorraine Cadwallader (Secretary)
Telephone: 01562 755630
Email: lorraine@cadfam.entadsl.com

Institute for Complementary and Natural Medicine
Can Mezzanine
32-36 Loman Street
London
SE1 0EH
Telephone: 020 7237 5165 (10am to 6pm)
Website: www.icnm.org.uk.uk

Lynn’s Bowel Cancer Campaign
5 St George’s Road
Twickenham
TW1 1QS
Website: www.bowelcancer.tv

Macmillan Cancer Support
89 Albert Embankment
London
SE1 7UQ
Telephone: 0808 808 00 00 (Monday to Friday, 9am to 8pm)
Website: www.macmillan.org.uk
Glossary of terms
These are some of the medical words and terms you may come across during your appointments for colorectal investigation.

Abscess
A localised collection of pus in a cavity formed by decay of diseased tissues.

Acute
Sudden onset of symptoms.

Adjuvant therapy
Chemotherapy and radiotherapy used after surgery.

Aetiology
Cause.

Anaemia
A reduction in the number of red cells or haemoglobin (iron) in the blood which means that the blood is less able to carry oxygen around the body.

Analgesia
Pain relief.

Anastomosis
The joining together of two ends of healthy bowel after diseased bowel has been cut out (resected) by the surgeon.

Anus
The opening to the back passage.

Barium enema
An X-ray of the large bowel (colon) used for diagnosis.

Benign
Non-cancerous.
**Biopsy**
Removal of small pieces of tissue from parts of the body (e.g. colon – colonic biopsy) for examination under the microscope for diagnosis.

**Caecum**
The first part of the large intestine forming a dilated pouch into which the ileum, the colon and the appendix opens.

**Chemotherapy**
Drug therapy used to attack cancer cells.

**Chronic**
Symptoms occurring over a long period of time.

**Colon**
The large intestine extending from the caecum to the rectum.

**Colonoscopy**
Inspection of the colon by an illuminated telescope called a colonoscope.

**Constipation**
Infrequency or difficulty in passing bowel motions.

**Crohn’s disease**
Inflammation of the lining of the digestive system.

**CT scans**
A type of X-ray. A number of pictures are taken of the abdomen and fed into a computer to form a detailed picture of inside of the body.

**Defaecation**
The act of passing faeces/bowel motions.

**Diagnosis**
Determination of the nature of the disease.
**Diarrhoea**
Passing looser and more frequent bowel motions.

**Distal**
For colorectal investigations this means the part further down the bowel towards the anus.

**Diverticulum**
Small bulges that develop on the lining of the intestine that can become inflamed and infected (diverticulitis).

**Dysplasia**
Alteration in size, shape and organisation of mature cells that indicates a possible development of cancer.

**Electrolytes**
Salts in the blood e.g. sodium, potassium and calcium.

**Endoscopy**
A collective name for all visual inspections of body cavities with an illuminated telescope e.g. colonoscopy, sigmoidoscopy.

**Enema**
A liquid introduced into the rectum to encourage the passing of motions.

**Exacerbation**
An aggravation (worsening) of symptoms.

**Faeces**
The waste matter eliminated from the anus (other names – stools, motions).

**Fistula**
An abnormal connection, usually between two organs, or leading from an internal organ to the body surface e.g. between the end of the bowel (anal canal) and the skin near the anus.
Haemorrhoids (piles)
Swollen arteries and veins in the area of the anus which bleed easily and may prolapse (protrude from the anus).

Hereditary
The transmission of characteristics from parent to child.

Histology
The examination of tissues (e.g. from a biopsy) under the microscope to assist diagnosis.

Inflammation
A natural defence mechanism of the body in which blood rushes to any site of damage or infection leading to reddening, swelling and pain.

Lesion
A term used to describe abnormalities in the tissue of the body.

Malignant
Cancerous.

Mucus
A white, slimy lubricant produced by the intestines.

Neutropenia
Reduction in the number of white cells which fight infection.

Oedema
Accumulation of excessive amounts of fluid in the tissues resulting in swelling.

Oncologist
A doctor who specialises in cancer care using drugs and radiotherapy.
Palliative care
Improving the quality of life by providing support and control of unpleasant symptoms.

Pathology
The study of the cause of the disease.

Perforation of the bowel
An abnormal opening in the bowel wall which causes the contents to spill into the normally sterile abdominal cavity.

Peritonitis
Inflammation of the peritoneum (the thin layer of tissue that lines the inside of the abdomen) often due to a perforation.

Polyp (bowel)
A small growth on the inner lining of the bowel.

Prophylaxis
Treatment to try and prevent a disease occurring before it has started.

Proximal
For colorectal investigations this means further up the bowel towards the mouth.

Radiologist
A doctor who interprets X-ray pictures to make a diagnosis.

Radiotherapy
The use of high energy rays which attack cancer cells.

Rectum
The large intestine above the anus (the back passage).

Relapse
Return of the disease activity i.e. the cancer has come back.
Remission
A lessening of symptoms of the disease and return to good health.

Sigmoid
The part of the colon shaped like a letter ‘S’ or ‘C’ that is closest to the rectum and anus.

Sigmoidoscopy
Inspection of the sigmoid colon with an illuminated telescope called a sigmoidoscope.

Stoma
An artificial opening made by surgery of part of the intestine onto the abdominal surface which allows stool to exit the body.

Stricture
The narrowing of a portion of the bowel.

Suppository
A bullet-shaped solid medication put into the rectum.

Tenesmus
Persistent urge to empty the bowel.

Terminal Ileum
The end of the small intestine (ileum) which connects to the caecum.

Tumour
An abnormal growth which may be benign (non-cancerous) or malignant (cancerous).

Ulcerative colitis
Ulceration and inflammation of the large bowel.
Ultrasound
Use of high frequency sound waves to produce pictures of organs on a screen for diagnostic purposes, by passing a small hand held device called a transducer with conducting jelly over specific body area.

Please note that we hold all patient details with regards to your care on a computer programme in the department.

If you have any questions or if there is anything you do not understand about this leaflet please contact:

The Colorectal Clinical Nurse Specialists on 01384 244286. If we are not in please leave a message on the answerphone and we will get back to you.

This leaflet can be made available in large print, audio version and in other languages, please call 0800 0730510