This is an operation that involves removal of part or all of the rectum and sigmoid colon with the bowel rejoined to restore continuity. It is performed for a variety of reasons but most commonly for bowel cancer and diverticular disease. The information below details treatment in the case of cancer, as this may sometimes be more complicated but it is applicable for the most part to all patients undergoing the operation. (The operation is performed using usually four access points (ports) in the abdominal wall. The bowel is manipulated, its attachments and blood supply divided before one of the ports is enlarged to allow easy extraction from the body. The affected bowel is removed and the two healthy bowel ends are rejoined before returning them to the abdomen. The usual stay in hospital for this operation is around three or four days but may be more or less depending upon how quickly you recover).

What is the treatment?
The main treatment for rectal cancer remains surgery, by means of an operation known as anterior resection. Treatment is tailored to the individual patient and the nature of their cancer. Initial investigations may include examination by your surgeon, colonoscopy, CT and MRI scanning. The results of these investigations will determine whether or not radiation or chemotherapy is required before or after surgery. Some important information may not be available until after the surgery is performed.

The aim of surgery is to remove part or all of the rectum and join the bowel together again. Depending upon the nature of this join, your surgeon may create a diverting bowel stoma (colostomy or ileostomy) above the join to protect it and allow it to heal. This stoma is usually closed around three months after your original operation. If you need to have a stoma you will be given full information and support ahead of your operation, during your stay in hospital and when you return home by Stoma Care Nurses.

The operation itself is a major operation that requires a general anaesthetic and the insertion of a number of instruments (usually four) into the abdominal cavity through plastic access channels (ports) between 5mm and 10mm in diameter. A small incision, usually less than 5cm is made to remove the affected part of the bowel. The average stay in hospital for this operation is around four days but may be more or less depending upon how quickly you recover. On discharge from hospital you should be opening your bowels normally or should you have had a stoma created be able to manage changing the stoma appliances (bags) without difficulty.

What is the surgery?
The surgery for your cancer involves mobilising the area of bowel affected by disease along with its blood supply and lymph nodes (glands). A section of this bowel is then removed allowing a safe join to be created by two ends of bowel that are healthy and that have a good blood supply, which will enable them to heal. A stoma may be sited on your abdominal wall in an appropriate position.

What happens before the operation?
You will have specific tests to ensure your fitness for surgery, which are not directly related to the treatment of the tumour itself. These include blood tests, x-rays and an ECG or echocardiogram of the heart. These tests will be organised by your surgeon or by one of the junior members of the surgical team at your pre-admission clinic visit. The purpose of this visit is to spot any abnormalities well in advance of surgery and to make sure that there are no delays prior to timely completion of your operation.
What happens just before the operation?
You will be admitted to one of the surgical wards. A senior nurse will complete the admission process detailing your current condition, ongoing medical problems and medications as well as personal details such as next of kin. You may be prescribed a purgative medicine to completely clean out the bowels prior to surgery and this will be accompanied by an intravenous drip, to prevent you becoming dehydrated. Ward staff will administer a subcutaneous injection of a blood thinning agent to protect against developing clots in the legs or lungs as a result of the surgery you are about to undergo and the expected decreased mobility that you may encounter during your hospital stay. You will be permitted to eat and drink at the discretion of the ward staff up until six hours before surgery.

An Anaesthetist will visit you prior to your surgery to discuss the nature of your anaesthetic and methods of pain control both before and after the operation. Your surgeon will visit you and discuss the operation again, asking you to sign a consent form once you are happy that all your questions have been answered and the risks and benefits have been explained.

What are the complications?
Although there are infrequent risks attached to this operation the nature of the surgery means that these may be significant and on occasion life threatening.

Infection – Chest, Urinary Tract, Wound and Pelvis
The nature of the surgery means that infective complications are the most common after such operations but are usually quite successfully treated whilst you are in hospital. Chest infections are best avoided by early mobilisation and regular breathing exercises, which will be taught to you by the Physiotherapists on the ward. Infections of the urinary tract occur as a result of catheter insertion during the time of surgery and this tube, which drains urine from the bladder, will be removed at the earliest possible time.

Bleeding
Major surgery such as an anterior resection involves division of many major and minor blood vessels. Although meticulous care is taken to prevent bleeding it is a recognised but small risk of such operations.

Anastomotic Leak
The join between the two healthy parts of the bowel ends that has been created by your surgeon may on occasion fail to heal. The rate of this occurring is between 6% and 8%.

Should this be the case you may require further surgery whilst you are in hospital, often with the creation of a temporary stoma.

Blood Clots – Legs, Lungs and Heart
Operations on the pelvis such as an anterior resection increase the chance of clots developing in the deep veins of the legs and pelvis. Should they become dislodged they may impact in the lungs, which is known as a pulmonary embolus. Similarly blood clots that may occur in the arteries of the heart can result in heart attacks. All of these conditions are generally treated whilst in hospital but in extreme cases can be life threatening. The best way of avoiding such problems is with injectable medication to thin the blood during your hospital stay and early mobilisation shortly after surgery.

What will happen after the operation?
- A wound on your abdomen will be closed with either stitches or clips and covered with a dressing.
- You will have one or more intravenous drips providing you with fluids since it may be a day or so before you can resume full and normal diet.
- You may have a tube in your nose, which passes down to the stomach.
- The aim of this tube is to prevent fluid accumulating there and making you feel sick before normal stomach emptying resumes a few days after your operation.
- You may have a drain (a small tube) which drains any unwanted fluid from the abdominal cavity.
- You may have a stoma covered by a stoma appliance (bag) on your abdomen.
- It may take a few days to get rid of all these tubes and drips during which time nurses on the ward will help you to wash and move in and out of bed.
- You will be given fluids and food to take by mouth at the discretion of your surgeon.
- Soon after surgery you may feel you wish to pass wind or have your bowels open, even if you have a diverting stoma this is entirely normal.
- Some discomfort after surgery is normal but pain and nausea can be treated and even avoided altogether if doctors and nurses on the ward are informed about these problems by you early on.

The take home message is not to suffer in silence with any of these conditions. Avoidance of nausea and pain leads to earlier return to bowel function, improved mobility and decreased post operative complications. No ward staff will be put out or offended by any request for assistance or pain relief at any time. Should the prescribed measures not have the desired effect within a short period of time then do not hesitate to ask anyone at hand again for stronger or different medication.
MEDICAL PROCEDURES
Laparoscopic Anterior Resection (of the Colon and Rectum)

- Should you fulfil your surgeon's discharge criteria then you will be allowed home. These are usually
- Three full meals eaten without nausea or vomiting
- Wind passed from the rectum or a managed functioning stoma
- Pain controlled with combination oral medication
- Satisfactory observations and clinical examination
- Usually no stitches need to be removed after operation, they are absorbable. The ward nurses will inspect the wounds prior to discharge, confirm all is well and give advice about the need for further dressings. Whatever the state of your wounds there is absolutely no reason why you should not bath or shower the area.

What happens next?
After your operation the affected segment of bowel will be very closely examined by Pathologists under a microscope. The time to process such large tissue samples and examine them on a microscopic level takes between seven and ten days. Of course everyone would wish that we had answers to questions regarding the nature of the disease much more quickly. Your surgeon will be able to tell you the results of this microscopic examination as soon as the results are made available to him.

Around the half of the patients undergoing this kind of surgery do not require any further treatment. For the other half chemotherapy or more rarely, radiotherapy may be recommended to reduce the risk of your cancer returning at a later date. Your surgeon will discuss your case on an individual basis with colleagues in the Department of Pathology, Radiology and Oncology (radiotherapy and chemotherapy) at weekly meetings, where a subsequent treatment program may be constructed to suit your individual case. You may be aware of this treatment plan whilst in hospital or informed of it at your first clinic appointment after discharge.

What happens after hospital?
How soon you go home after the operation depends on how quickly you recover from surgery and who is at home to help you. Most people are largely back to normal at six weeks after such surgery but it may take up to six weeks before you can say that you are fully recovered from the operation. As you leave hospital your General Practitioner will be informed of your treatment and the plans for your follow up. Should you have a stoma, the Stoma Nurses will keep in regular contact with you at home to ensure that there are no ongoing difficulties. You will be given or sent an appointment to be seen in the outpatient department by your surgeon between two and six weeks after discharge.

How will I feel when I go home?
Initially it is not unusual to feel very tired following your operation. Some people feel more exhausted than they felt in the hospital. It is also common to feel depressed. This is normal and often a reaction to the operation, your diagnosis and being in hospital. As time goes on, you will feel better.

It is important to rest initially when getting home, but it is equally important to gradually increase your activity. Listen to your body and stop when you begin to tire. You are advised not to do any heavy lifting for six weeks after the operation.

Driving should be avoided for two weeks. The main area of concern is your ability to perform an emergency stop. Check with your car insurance company regarding the cover you have following a major operation.

Who can I talk to?
The surgery that you are about to undergo is major and clearly there are significant fears and anxieties experienced by every patient. These are best allayed by asking someone involved in your care whatever you would like to know or are unsure about. Similarly close family members may be as or more anxious than you are but there should be many opportunities for them to discuss your treatment at any stage.