Introduction
This booklet provides information about your operation. Please do not hesitate to ask any questions that you or your family/whanau may have. This booklet also provides information on support networks, services provided within the hospital and what to expect following treatment. There is a space at the end of this booklet to write down any questions that you may have.

What is the Large Bowel (Colon) and Rectum?
The large bowel (colon) and rectum is a muscular tube, approximately 1.5 metres long and is divided into 7 sections; the caecum, the ascending colon, the transverse colon, the descending colon, the sigmoid colon, the rectum and the anus. After food has been swallowed, it passes down through the gullet and stomach into the small bowel. As food passes through the small bowel it is digested and the body absorbs essential vitamins and nutrients. From here the food passes into the large bowel (colon). The main functions of the large bowel are
- To absorb water and salt back into the body
- To store waste (faeces or stool)
- To secrete mucous which acts as a lubricant

Types of Surgery

**Open Surgery**
Some patients will have open surgery, which involves an incision (cut) in the abdomen called a laparotomy.

**Laparoscopic Surgery**
This is a relatively new approach to bowel surgery in which the operation is done through small incisions using specialised equipment. Some advantages of this can be early recovery and return to work, reduced scarring of the abdomen and fewer
respiratory problems. Your surgeon will offer laparoscopic surgery if it is suitable for you.

**Abdominoperineal Resection**

An abdominoperineal resection is performed for cancer of the rectum and anus. All of the rectum and anal canal is removed. When the cancer lies close to the anal sphincter muscles (which control when a bowel motion is passed), to get the whole cancer out and ensure the maximum chance of cure, it is necessary to remove all of the rectum and anus. Without the anal sphincters, control of bowel function is lost, therefore the bowel is not rejoined and the anal defect is stitched closed. A permanent stoma (colostomy) is then formed as part of this operation.

**What is a Colostomy?**

A colostomy is an opening on your abdomen where the large bowel is brought up through the muscle layers to the abdominal wall and stitched to the skin. A bag is placed over this opening to allow your bowel motion to be collected. You will be seen by a stomal therapist prior to your surgery. They will provide you with information and support. A mark will be placed on your abdomen which will identify a suitable site for the stoma.

Whilst in hospital you will be seen regularly by the stomal therapist to teach you how to care for your stoma. Initially on discharge from the hospital the stomal therapist will visit you at home to provide ongoing support, education and bags. You will then be followed up at their clinic. If you live outside of the Canterbury region you will be followed up by your local stomal therapy service.

**Preparing for Surgery**

Prior to your surgery you will be asked to attend a preadmission clinic. You will be assessed at this time for surgery. This will usually occur one week prior to your surgery and may take several hours. At the preadmission clinic you will be seen by a doctor, an anaesthetist and a nurse. This appointment will also give you and your family the opportunity to ask any questions you may have.

Planning for your discharge begins at the preadmission clinic. If you have any concerns about how you will cope when you are discharged please discuss these with the nurse at this time. Please be aware that occasionally your care may be handed over to another surgeon due to the number of urgent patients on the waiting list for surgery, or the specific skills required for your surgery. As we feel it is in your best interests to have met the surgeon and discussed surgical management with him/her, a further appointment will be made for you to meet the new surgeon who will be caring for you.

**Complications of Surgery**

About one in three people having bowel surgery will have a complication related to their operation. Most of these are very minor but some are more significant and may be life threatening. Complications can be divided into those related to the anaesthetic and those related to the surgery. Your anaesthetist will discuss the anaesthetic with you. If you have any further concerns please discuss them with your surgeon or his/her team. Some of the significant complications are discussed below.

**Bleeding**

Bleeding can occur during surgery or even up to a few days later. If this happens, you may need a blood transfusion but this is only given with your consent. Occasionally we use radiological techniques (x-ray) to stop the bleeding and occasionally surgery is required.

**Infection**

Infection can occur in a number of sites including inside the abdomen, the lungs, the bladder and in the wound. A number of techniques are used to prevent infection. These include antibiotics, sterile wound dressings and isolation of patients with bad infections. It is an expectation of the surgical team that you
begin mobilising either the day of your operation or the day after to reduce the risk of this and other complications mentioned.

**Bowel Obstruction**
This is usually caused by internal scarring also referred to as “adhesions”. It can occur after any abdominal operation, sometimes years later. Mostly it is treated with intravenous fluids (a drip), pain relief and sometimes a drainage tube, which is inserted through your nose and passed down into the stomach (nasogastric tube). Mostly it does not require another operation and will settle with the above treatment. The symptoms of a bowel obstruction are a combination of
- Not passing wind or a bowel motion
- Abdominal pain or cramps
- Vomiting
- Abdominal swelling

**Death**
The chance of dying as a result of your surgery is very low (less than one percent), but this risk increases as you get older (>80 years), or if you are very unwell at the time of your surgery (for example people having emergency surgery for a bowel obstruction or bowel perforation).

**Wound Hernia**
Like some bowel obstructions this is a late complication and may take some years to present. Hernias are a weakness in the abdominal wall and are more common in obese patients, smokers and after wound infections. Sometimes they require surgical repair.

**Deep Vein Thrombosis (DVT/Leg Clots)**
This is the same as “travellers’ clots” seen in long flight airline passengers and is due to reduced mobility for long periods of time (such as when you are anaesthetised during your operation). Being overweight, having cancer surgery, smoking, and not moving after surgery all increase the risk of clotting. The chance of this happening can be reduced by the use of anti-clotting agents (small injection under the abdominal skin), specialised stockings and getting you up and mobile as soon as possible.

**Non Healing Perineum**
The area of skin between your vagina/scrotum and your tail bone (perineum) may not heal up right away. This may take at times several months and may require further operations to allow it to heal.

**Planning for Your Discharge from Hospital**
It is very important to consider how you will manage your care once you are discharged from hospital and discuss this with your family. You need to consider this before you come in for your surgery. The following options may be discussed with you and should be considered.
- Organising to stay with family and friends or arranging someone to stay with you for at least 48 hours after your discharge from hospital.
- Going home with extra supports, for example, assistance with personal cares and domestic assistance. Please note: domestic assistance is free only if you fit the criteria which are:
  1. have a community services card
  2. you live alone.
- A short period of rehabilitation may be required at Burwood Hospital. This will be assessed during your recovery.
- Convalescence care should be discussed prior to your admission. There are limited convalescence beds available in the Canterbury area, which you may be eligible to access. A referral to a social worker will be made if this is an option. You will be responsible for travelling to and from these facilities.
- Convalescence into a rest home can incur a payment for service. This is based on certain criteria, which may apply. A referral to a social worker will be made if this is an option.
- The earlier we are aware of the need for convalescence care, the more likely you are to secure a
bed in the facility of your choice. If you live alone it may be helpful to place extra meals in the freezer for your return home, or place easy to cook meals in the cupboard e.g. soup and tinned meals. If you have any concerns about how you will manage at home after your surgery, please discuss these with your family and the nurse caring for you.

**Leaving Hospital**

You will be able to return home once your doctor feels you are safe from any complications. Please see your GP for medical advice if you become unwell after your discharge from hospital or you develop any of the following:

- Chest pain
- Shortness of breath
- Fever or chills
- Calf pain
- Nausea or vomiting
- Diarrhoea / Constipation
- Excessive Bleeding
- Increasing Abdominal Pain

**IN THE EVENT OF AN EMERGENCY CALL AN AMBULANCE IMMEDIATELY**

**Helping Yourself**

Getting back to normal can take some time. It can sometimes take up to a year following bowel surgery to return back to your normal level of function, so don’t get discouraged.

**Rest and Activity**

It is important to gradually increase your activity after your surgery so that you return to your normal ability / mobility levels. Building up the distance you walk will improve your fitness and strength and may help to prevent chest infections. Over 4 - 5 weeks aim to build up to 30-40 minutes walking at a pace that just starts to make you breathe a little harder than at rest. Please avoid lifting any heavy objects for at least six weeks following your surgery as your abdominal muscles will be weak and this will reduce the risk of developing a hernia.

Continue taking regular pain relief as discussed prior to your discharge.

**Wound Care**

If your abdominal wound or perineal wound (area of skin between your vagina/scrotum and your tail bone) becomes red, painful or has a discharge, please see your GP for advice. You should have dissolvable stitches on your perineal wound. It is very important that these are not removed under any circumstance unless by your surgeon. If you have clips or sutures in your wound you will need to make an appointment with your GP to have these removed. You will be given a clip remover prior to your discharge from hospital.

**Dietary Advice**

You will be provided with advice about diet from a dietitian while in hospital. It is important to make some changes to your diet with a colostomy and this will be reinforced by both stomal therapists and nursing staff.

**Bowel Function**

Your bowel motion through your colostomy may also take up to a year to settle down because your bowel has been shortened, however some people never have the same consistency of bowel motion after this type of operation. It is not uncommon following this type of bowel surgery to experience

- Loose bowel motions through the colostomy as the bowel length has been shortened by the surgery and therefore less fluid is absorbed from the bowel motion
- More frequent bowel motions into the colostomy
Increased wind through the colostomy
Abdominal bloating
Please discuss this with your healthcare provider as a combination of the following may help to improve your bowel function
- Diet
- Fibre and fibre supplements
- Medications

**Returning to Work**
This depends on your occupation and how you feel physically and emotionally. You can be issued with a medical certificate if required. Please discuss with the medical staff prior to discharge.

**Driving**
You may commence driving when you can put your foot on the brake in an emergency situation without discomfort. This is usually about 6 weeks after, if you had open surgery but is generally a shorter timeframe if you had laparoscopic surgery. Some pain relief can cause drowsiness and may alter your normal driving responses. Some insurance agencies may not cover you in an accident for up to 6 weeks following surgery. It is your responsibility to check this with your insurance company.

**Sexual Activity**
It is usually safe to engage in sexual intercourse approximately six weeks after surgery unless you have been advised otherwise. It is not uncommon for sexual desire to be reduced following surgery but this should only be temporary. After this surgery however, the nerves that assist with sexual arousal may become damaged as a result of the surgery itself or other treatments like radiation. For men this may mean a loss in the ability to gain or maintain an erection. Men may also find that if they are able to climax that their semen is not expelled at this time but may be released from the body next time they pass urine. This is called retrograde ejaculation.
For women this may mean an inability to climax or pain on intercourse.
If you have concerns regarding this please discuss them with your GP or surgeon as there are ways in which these problems can be addressed and we are happy to discuss these issues as they are common to our practice.

**What are the Results from my Surgery (histology)?**
Histology reports are available for your surgeon seven to ten days after surgery and include information about the type of disease you have and how complex it may be.
If you do not receive the results of your surgery while you are in hospital these will be given to you at an outpatient appointment. Please try to bring a support person with you to your outpatient appointment.

**Follow Up**
Initial follow up after your surgery will be with your surgeon or a member of their team approximately two to six weeks after discharge from hospital. Further follow up will be determined depending on the results from this operation.
Contacts

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<thead>
<tr>
<th>Colorectal Nurse Specialist</th>
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Useful Websites
The value of the internet is widely recognised, however, not all the information available may be accurate and up to date. For this reason, we have selected some key sites that people might find useful.

Beat Bowel Cancer Aotearoa [www.beatbowelcancer.org.nz](http://www.beatbowelcancer.org.nz)

Cancer Society of New Zealand [www.cancernz.org.nz](http://www.cancernz.org.nz)

Colorectal Surgical Society of Australia and NZ [www.cssanz.org](http://www.cssanz.org)

Macmillan Cancer Support [www.macmillan.org.uk](http://www.macmillan.org.uk)

Acknowledgements
Thank you to all those who were involved in the development of this booklet, including patients, their families, hospital staff and Nurse Maude Stomal Therapists.

Questions/Notes
Please make a note of any questions you would like to ask:

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