

James Aitken

MB, BS; LRCP, MRCS; MS; FRCS (Edin); FCS(SA); FRACS

General and Colorectal Surgeon

Unit 4,
77 Grand Boulevard,
Joondalup, 6027

Suite 41
Hollywood Medical Centre
85 Monash Avenue
Nedlands, 6009

Tel: 6389 0244

Fax: 6389 0255

www.perthcolorectal.com.au

email: info@perthcolorectal.com.au

All correspondence to Hollywood

ILEOSTOMY CLOSURE

This general guide is designed to provide background information to the operation that you will shortly undergo. It aims to supplement verbal discussion, to answer common questions and to be readily available as an *aide memoir*. It cannot cover in detail every aspect of your individual operation and may not deal with some areas that are of particular concern to you. These can be dealt with individually.

You should feel free to ask about any aspect of your care. All your questions will be answered fully, honestly and in as much detail as you wish. In the heat of the moment it is easy for questions that you intended to ask to slip from your mind. You should note on paper any questions that you may have.

Further information is available at the web site above. This site also provides links to other sites that may provide additional information.

What is involved?

When you are anaesthetised the anus and rectum will be examined. The anastomosis made at your initial operative may be a bit narrow and will be dilated.

A cut is then made round the stoma and the bowel freed up. The bowel at the edge of the skin is cut away and the end joined together. The wound is then closed. The round stoma will then appear as single scar about the size of an appendix operation.

The next few days.

The next day you will be out of bed and moving around. You will be permitted fluids and over the next two to three days a solid diet introduced.

Most patients go home on day three or four.

Pain relief.

Proper pain relief is very important for both holistic and physiological reasons. Your post-operative recovery will be slower if you do not have adequate pain relief. Patients often have an understandable reluctance to take pain relieving drugs. This is a mistake and may increase post-operative complications. The principal that underlies all methods of pain relief is that the drugs work best if you anticipate the pain. A small quantity of the drug taken regularly (even if pain free at that time) will work better than waiting for the pain to occur and then taking a larger dose.

Before the operation the anaesthetist will offering you two types of pain relief. The first is an epidural anaesthetic. This requires a needle to be inserted into your back and drugs are given through a fine catheter. The alternative is 'Patient Control Analgesia (PCA)'. With this technique you press a button as and when you feel the pain and a small dose of the

pain relieving drug is administered. The advantage of these techniques is that a small quantity of the pain relieving drug can be administered on an on-going or regular basis and prevent the pain rather than treat it after it occurs. This is by far the most effective form of pain relief. Alternatively, regular injections can be administered. This is not as effective as they are usually administered after the pain has occurred.

After a couple of days adequate pain relief can normally be achieved by oral medication. Regular panadol, regardless of whether you have pain or not, is the foundation on which other medications are given. You should use this to provide background pain relief for a week after your operation. Additional, stronger painkillers and/or anti-inflammatory drugs can then be taken on top of the panadol for break through pain. Many strong painkilling medications contain morphine, codeine or a derivative of these drugs. One of the side effects of these drugs is constipation.

Bathing and showering.

It is quite safe to get your wound wet with a shower or quick bath two or three days after your operation. However, long soaking baths with a Jeffery Archer novel should be avoided for at least two weeks as the wound will become soft and the scab may become infected. Adding salt to the bath will not help heal the wound and may make your skin dry and tight. After washing, pat the wound dry with a clean towel. A bath mat helps prevent slipping and a towel hooked around the bath taps can be a helpful lever when you try to get out. It can also be reassuring to have someone else in the house the first time you have a bath, even if you do not need help.

Work.

Your return to work depends on many factors, including your occupation, age and general health. It will also depend on whether your operation was open or laparoscopic. You will definitely require one month off work, and some may require two months. It is better to feel completely well before you return to work rather than have to take more time off a few weeks or days later because you have returned to work too early.

Surgical trainees.

Some patients may have part of their surgery undertaken by a surgical trainee. A trainee performing left side surgery is normally, but not always, under the direct supervision of the consultant. It is important that, as part of their training, trainees gain independent experience whilst consultant cover is still immediately available. There is a substantial body of surgical literature that shows the outcome of operations undertaken by properly supervised trainees is no worse than those performed by the consultant. This literature specifically includes colon cancer surgery.

Your post-operative bowel habit.

It is inevitable that your bowel habit will be disrupted in the post-operative period. Indeed, the only predicable feature of your post-operative bowel habit is that it will be unpredictable.

The bowel distal (down stream) of the ileostomy has not been used for some months. The defunctioned bowel has to recover in terms of its muscle function, regeneration of the bowel lining and re-colonisation of normal bacteria flora. This takes several months.

The large bowel may have been shortened so less water will be absorbed, faeces will pass through the shorter colon quicker, and the stool presenting in the remaining rectum will be softer. You will therefore wish to pass stool more frequently (up to six times per day and again at night) and there may be urgency and occasional episodes of incontinence of either

flatus (wind) or faeces. These problems can be distressing, but they do improve enormously over the first three months and even further over the next six months. Some patients notice an ongoing improvement for up to two years.

What can be done?

Much can be done to help by paying close attention to what you eat and drink. The table below give you an idea as to what you can do to help yourself. Experiment by excluding one type of food from your diet and monitoring the response. It should then be possible to find what affects your bowel.

Fluids	You should drink no more than 1 to 1.5 litre of fluid per day. Excess fluid will tend to make your stool softer.
Caffeine	Caffeine stimulates the bowel and as the stool then passes through faster, less fluid is absorbed and the stools are looser. Caffeine also relaxes the anal sphincter. Caffeine is found in coffee, tea, cola drinks and chocolate. Exclude caffeine from your diet and see if you improve.
Artificial sweeteners	Artificial sweeteners are sugars that are not absorbed by your body. Some non-absorbable sugars are used as a laxative. Some non-absorbable sugars, such as sorbitol or mannitol, are used in sugar free foods. Not surprisingly artificial sweeteners may make the stools loose, or even cause diarrhoea. Eliminate artificial sweeteners and seeing if this helps. Artificial sweeteners are found in most foods and drinks branded as 'low calorie', including 'Diet' drinks and low sugar chewing gum.
Fibre	Although fibre is good, it can make incontinence worse as it keeps fluid in the bowel and makes the stools loose and more likely to leak. As fibre stimulates the bowel you have to visit the toilet more often. All vegetables tend to make motions softer, more frequent and make gas. Initially you should omit foods, which are obviously high in fibre. Capsicum, cabbage, brussel sprouts, onions, beans and broccoli have the most potent effect. Stone (apricots, plums, peaches) and dried (prunes and sultanas) fruits may also have a bad effect. Potato and pumpkin appear to have the least effect. Soluble, or digestible fibre (eg bananas, potatoes, rice, pasta, oatmeal) is less likely to cause a problem.
Medications	Many medications influence the stool consistency (see below).
Alcohol	Alcohol may make the stool loose. Because of its volume and yeast, beer is often worse than other drinks.
Spicy foods	Spicy or hot food can simulate the bowel.
Other foods	Some people find specific foods make matters worse. Try excluding food in sequence and see how you are affected. Foods that are often implicated include smoked products, fatty and dairy foods. Other foods, such as arrowroot biscuits, marshmallow sweets and bananas can help.

Medications

Some medications will make your bowel habit worse. Examples include antibiotics, non-steroidal anti-inflammatories for arthritis, and some anti-depressants. Other drugs essential to well being, such as metformin for diabetics, also make the stool softer.

Other medicines can be used to solidify a liquid or soft stool, to make the bowel squeeze less strongly or to ensure the rectum empties fully. Some may increase the tone of the sphincter muscles. Some medications may be need for a prolonged period, often years.

Suppositories	It is important that your visit to the toilet completely empties your rectum. A suppository can be inserted as soon as you awake. You will usually be able to hold it for 20-30 minutes. This will then give a good bowel action that should not require you to linger on the toilet, nor require you to strain. The rectum will then be empty and will not contain any stool to leak out during the day. People in whom passive leakage is a major problem may choose to slow the bowel down so there are no bowel actions without the help of suppositories or an enema. These can be used to empty the bowel once every few days.
Loperamide (Imodium)	These drugs slow the passage of stool through the colon. More water is then absorbed and the stool becomes firmer and so less likely to leak. It is usually best to take these medicines before food rather than after.
Codeine phosphate	Loperamide (Imodium or Gastrostop) makes the stool firmer and has a potent effect, but is barely absorbed into the bloodstream. There is no tendency to develop tolerance or addiction.

The ideal dose needs to be individually determined as it is difficult to predict the dose that will be effective, but not cause constipation.

Codeine phosphate has a similar, but more powerful effect. It may produce sedation and is not usually first choice.

Some people find one or other of these drugs works best for them, or that a lower dose, but in combination, is better. You should experiment to find the regime that suits you best.

Bulking agents If the stools are very loose, especially if there seems to be a lot of mucus, medications such as Fybogel or Metamucil can absorb excess fluid and produce a more formed stool.

What can go wrong?

The table below summarises the potential risks and complications. This is an intermediate operation and for most patients the risk of a major complication is small.

This table is not exhaustive and if you have any concerns you should ask before you sign the consent form. It is not intended to alarm as most patients will not have a serious complication. However, one third of patients having an anterior resection will have an event that delays their recovery. Although everything possible will be done to prevent the development of any complications, it is only possible to reduce, not eliminate, these events.

The most important complication is a leak where the bowel was joined (the anastomosis). This is a serious complication (2% chance) and usually requires a second operation as an emergency. Normally this second operation will require another stoma. It may be possible to close this stoma at a second operation some months later.

Other complications are possible, as after any surgical procedure. These include drug reactions, post-operative bleeding, deep vein thrombosis, heart and lung complications and wound infections. This list is not exhaustive and if you have any concerns about the possible side-effects or complications following an anterior resection you should ask about them before you sign the consent form.

Risk	What happens	What may be done (options)
General complications that may occur after any surgery		
Clot in legs (DVT)	A clot forms in the legs. This may make the legs swell. The clot may break away into the lungs. This is a pulmonary embolus.	Blood thinning drugs (heparin) started at the time of surgery. TED stockings.
Post-operative bleeding	Blood leaks into the abdomen or out through a drain	1. blood transfusion 2. re-operation
Wound infection	An infection, including the development of pus, occurs in the wound	Antibiotics started at the time of surgery. Drainage of any pus is required, and this may require another operation or drainage under radio-logical guidance
Chest infection	A pneumonia develops	Antibiotics are required. A few patients require ventilation (in ICU)
Wound dehiscence	The wound opens up	Surgical repair within a few hours.
Hernia around the wound	A weakness develops in the wound. The bowel then slips through the abdominal wall and a bulge appears. This usually occurs more than six months after surgery	A surgical repair, usually with mesh, is required.
Urinary tract infection	Bacteria enter the bladder	Antibiotics
Bladder may not empty	It is not possible to pass urine. As the bladder gets full, the patient gets	The catheter is re-inserted and removed a few days later. Normally this solves the

	uncomfortable.	problem. Sometimes a catheter is required for 2-3 weeks. In men, prostate surgery may be required.
Vascular event	Stroke Heart attack	Each event managed on its own merits. Normally a period in ICU is required.
Death		

Complications that may occur after bowel surgery

Anastomotic leak	The join between the two ends of the bowel develops a leak	<ol style="list-style-type: none"> 1. antibiotics alone 2. Drainage under radiological guidance 3. further surgery, including an stoma if not already present
Post operative ileus	The bowel remains paralysed for longer than the usual 3-4 days	<ol style="list-style-type: none"> 1. a tube through the nose is inserted/left in the stomach 2. various drugs may be given 3. although it normally resolves in 3-5 days an ileus can occasionally be so prolonged that intra-venous feeding (TPN) s q is required.
Bowel blockage (adhesions)	Scar tissue in the abdomen blocks the bowel. This can occur within a few days of surgery, or many years later (or any time in between)	A NGT and IVI settles most. Some patients require further surgery.

What increases the risk of surgery

Examples

Medical illness	Pre-existing general medical conditions such as endocrine disorders, heart attacks or strokes <i>etc.</i>
Previous surgery	
Obesity	
Drugs	Examples include steroids, aspirin, blood thinning agents
Diabetes	
Smoking	

Why is the risk increased

As far as possible pre-existing medical problems will be corrected prior to surgery

Scarred tissue is normally of poor quality and does not heal well

1. poor quality tissue
2. poor mobilisation leading to increased risk of DVT, chest infection
3. poor blood supply so the risk of wound or anastomotic failure is much increased
4. extra strain on the wound, heart *etc*

Normally because they increase the risk of bleeding, infection or decrease the quality of wound healing

1. Ability to combat infection reduced
2. Poor blood supply
3. Slow healing

Increased risk of infection, vascular events and thrombosis

Definitions

IVI	Intravenous infusion ('a drip')	
NGT	Nasogastric tube	A fine tube from through the nose into the stomach to drain the stomach and stop vomiting.
ICU	Intensive Care Unit	For very ill patients, or those requiring ventilation
Ventilation		Placing patients on a machine that does the breathing for them. A tube is placed through

the month into the upper airway.