Laparoscopic abdominal surgery for Crohn's disease

Brought to you in association with EIDO Healthcare and endorsed by the Royal College of Surgeons England.

Discovery has made every effort to ensure that we obtained the information in this brochure from a reputable source. We have adapted the content to reflect the South African market or healthcare environment.

You should not only depend on the information we have provided when you make any decisions about your treatment. The information is meant to act only as a guide to the treatment you are considering having. Please discuss any questions you may have about your treatment with your treating healthcare professional.
What is Crohn’s disease?
Crohn’s disease causes inflammation of your intestine. The disease most often affects the end part of your small intestine, called the terminal ileum (see figure 1). However, it can affect any part of your intestine.

What are the benefits of surgery?
Your symptoms should improve. Your doctor may also be able to reduce or stop your medicine.

Are there any alternatives to surgery?
Crohn’s disease can be treated using medicine such as mesalazine, steroids, azathioprine and infliximab. These have side effects and your doctor will discuss them with you. You may already have had some of or all these treatments without success and your doctor has now recommended surgery as the best option for you.

What will happen if I decide not to have the operation?
Crohn’s disease can cause the following problems if you leave it untreated.
• Abdominal pain and bloating.
• Diarrhoea.
• Weight loss.
• You may get a hole in your intestine, which can cause an abscess or an abnormal connection (fistula) to develop between your intestine and another organ (usually your bladder).
• Your intestine may get completely blocked so you need urgent surgery.
• You may get problems with your back passage, causing fluid to leak out or pain when you open your bowels.
• There is a small increase in the risk of developing intestine cancer if the disease has affected your large intestine.
• You may get problems with other areas of your body such as your eyes or your joints. However, even after the operation these problems may still happen.

What does the operation involve?
The healthcare team will carry out a number of checks to make sure you have the operation you came in for. You can help by confirming to your surgeon and the healthcare team your name and the operation you are having. The operation is performed under a general anaesthetic and usually takes three to four hours. You may also have injections of local anaesthetic to help with the pain after the operation. You may be given antibiotics during the operation to reduce the risk of infection.

Figure 1
Crohn’s disease at the terminal ileum
Crohn’s disease causes your intestine wall to thicken, which can block food from passing through. The affected area of your intestine can also fail to absorb nutrients from your food. Your surgeon has recommended surgery to remove the diseased part of your intestine. However, it is your decision to go ahead with the operation or not.

About this document
We understand this can be a stressful time as you deal with different emotions and sometimes have questions after seeing your surgeon. This document will give you a basic understanding about your operation. We tell you about the things you can do to help make the operation a success. It is also important to remember to tell your surgeon about any medicine you are on so he or she can manage this, if necessary. It will also tell you about what to expect after the operation – while in hospital and in the long term. Your surgeon remains the best person to speak to about any questions or concerns you may have about the operation.
Your surgeon will use laparoscopic (keyhole) surgery as this is associated with less pain, less scarring and a faster return to normal activities. Your surgeon will make a small cut on or near your umbilicus (belly button) so they can insert an instrument in your abdominal cavity to inflate it with gas (carbon dioxide). They will make several small cuts on your abdomen so they can insert tubes (ports) into your abdomen. Your surgeon will insert surgical instruments through the ports along with a telescope so they can see inside your abdomen and perform the operation (see figure 2).

If they are unable to join the ends of your intestine, they will make a colostomy or ileostomy (your intestine opening onto your skin). For up to 1 in 9 people it will not be possible to complete the operation using keyhole surgery. The operation will be changed (converted) to open surgery, which involves a larger cut on your abdomen. Your surgeon will remove the instruments and close the cuts. They will place a drip (small tube) in a vein in your arm. They will also place a catheter (tube) in your bladder to help you to pass urine.

**What should I do about my medicine?**

Let your doctor know about all the medicine you take and follow their advice. This includes all blood-thinning medicine as well as herbal and complementary remedies, dietary supplements, and medicine you can buy over the counter.

**What can I do to help make the operation a success?**

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health. Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight. Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice. You can reduce your risk of infection in a surgical wound.

- In the week before the operation, do not shave or wax the area where a cut is likely to be made.
- Try to have a bath or shower either the day before or on the day of the operation.
- Keep warm around the time of the operation. Let the healthcare team know if you feel cold.

**What complications can happen?**

The healthcare team will try to make the operation as safe as possible but complications can happen. Some of these can be serious and can even cause death.
Using keyhole surgery means it is more difficult for your surgeon to notice some complications that may happen during the operation. When you are recovering, you need to be aware of the symptoms that may show that you have a serious complication. You should ask your doctor if there is anything you do not understand. Your doctor may be able to tell you what the risk of a complication for you is.

1 Complications of anaesthesia

Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation

• Pain. The healthcare team will give you medicine to control the pain and it is important that you take it as you are told so you can make a good recovery.
• Bleeding during or after the operation. You may need a blood transfusion or another operation.
• Infection of the surgical site (wound) (risk: less than 7 in 100). It is usually safe to shower after two days but you should check with the healthcare team. Let the healthcare team know if you get a high temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may need another operation.
• Unsightly scarring of your skin.
• Developing a hernia in the scar, if you have open surgery, caused by the deep muscle layers failing to heal. This appears as a bulge or rupture called an incisional hernia. If this causes problems, you may need another operation.
• Blood clot in your lung (pulmonary embolus), if a blood clot moves through your bloodstream to your lungs. Let the healthcare team know straightaway if you become short of breath, feel pain in your chest or upper back, or if you cough up blood. If you are at home, call an ambulance or go immediately to your nearest casualty unit.
• Chest infection. Deep breathing and physiotherapy will help to prevent a chest infection.
• Difficulty passing urine. You may find it difficult to pass urine after the catheter has been removed. This is more common if you had problems passing urine before the operation.

3 Specific complications of this operation

a Keyhole surgery complications
• Damage to structures such as your intestine, bladder or blood vessels when inserting instruments into your abdomen (risk: 1 in 1 000). The risk is higher if you have had previous surgery to your abdomen. If an injury does happen, you may need open surgery. About one in three of these injuries is not obvious until after the operation.
• Developing a hernia near one of the cuts used to insert the ports (risk: 1 in 100). Your surgeon will try to reduce this risk by using small ports (just over a centimetre in diameter) where possible or, if they need to use larger ports, using deeper stitching to close the cuts.
• Surgical emphysema (crackling sensation in your skin caused by trapped carbon dioxide gas), which settles quickly and is not serious.

b Surgery for Crohn’s disease complications
• Anastomotic leak (risk: 3 in 100). This is a serious complication that may happen if the join (anastomosis) between the ends of your intestine fails to heal, leaving a hole. Bowel contents leak into your abdomen, leading to pain and serious illness. You will often need another operation. Your surgeon may need to make a temporary stoma (your intestine opening onto your skin).
• Continued intestine paralysis (ileus), where your intestine stops working for more than a few days, causing you to become bloated and to be sick (risk: 2 in 100). You may need a tube (nasogastric or NG tube) placed in your nostrils and down into your intestine until your intestine starts to work again.
• Damage to other structures inside your abdomen. The blood vessels to your testicles or ovaries, and your ureters (tubes that carry urine from your kidneys to your bladder) are particularly at risk.
• Injury to your intestine. The risk is higher if you have had previous surgery to your abdomen.
• Tissues can join together in an abnormal way (adhesions) when scar tissue develops inside your abdomen. Adhesions do not usually cause any serious problems but can lead to intestine obstruction. You may need another operation. If you have had previous surgery to your abdomen, your surgeon will need to cut through the adhesions first. This makes injuring your intestine more likely.

How soon will I recover?

• In hospital
After the operation you will be transferred to the recovery area and then to the ward. Sometimes you may go to the intensive care unit or high care unit for one to two days so the healthcare team can monitor you more closely. Your anaesthetist will discuss with you the options for pain control. It is usual for your intestine to stop working for a few days. The healthcare team will restrict the amount of fluid you drink to prevent you from being sick.
As your intestine starts to work again, the healthcare team will give you more fluid to drink and you will be allowed to eat. A dietician will advise you if you need to add supplements to your diet.
The drip and catheter will be removed when you no longer need them.
You should be able to go home after 5 to 10 days. However, your doctor may recommend that you stay a little longer.
You need to be aware of the following symptoms as they may show that you have a serious complication.
• Pain that gets worse over time or is severe when you move, breathe or cough.
• A high temperature or fever.
• Dizziness, feeling faint or shortness of breath.
• Feeling sick or not having any appetite (and this gets worse after the first one to two days).
• Not having any bowel movements and not passing wind.
• Swelling of your abdomen.

If you do not continue to improve over the first few days, or if you have any of these symptoms, let the healthcare team know straightaway. If you are at home, contact your surgeon or GP. In an emergency, call an ambulance or go immediately to your nearest casualty unit.

• Returning to normal activities
To reduce the risk of a blood clot, make sure you follow carefully the instructions of the healthcare team if you have been given medicine or need to wear special stockings.
Once at home, you will not feel strong enough to return to normal activities straightaway. It may take up to three months for you to recover fully. Most people feel much better after the diseased part of their intestine has been removed.
It is not unusual for your bowels to be more loose than they were before the operation and for you to need to go to the toilet more often each day. This is normal and should improve with time. If loose or more frequent stools are troublesome, your doctor may give you some medicine to slow down your intestine.
Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, ask the healthcare team or your GP for advice.
Do not drive until your doctor tells you that you can.

• The future
Your doctor will discuss with you any changes in your medicine. They may also give you medicine to help prevent the disease from coming back. Crohn’s disease sometimes comes back and affects another part of your intestine or a part near to where the join was made. Stopping smoking significantly reduces the risk of the disease coming back.

Summary
Crohn’s disease causes inflammation of your intestine. Surgery is usually recommended if medicine fails to improve your symptoms. Surgery is usually safe and effective but complications can happen. You need to know about them to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Keep this information leaflet. Use it to help you if you need to talk to the healthcare team.
Acknowledgements
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