Royal Cornwall Hospitals
NHS Trust

Diverticular disease









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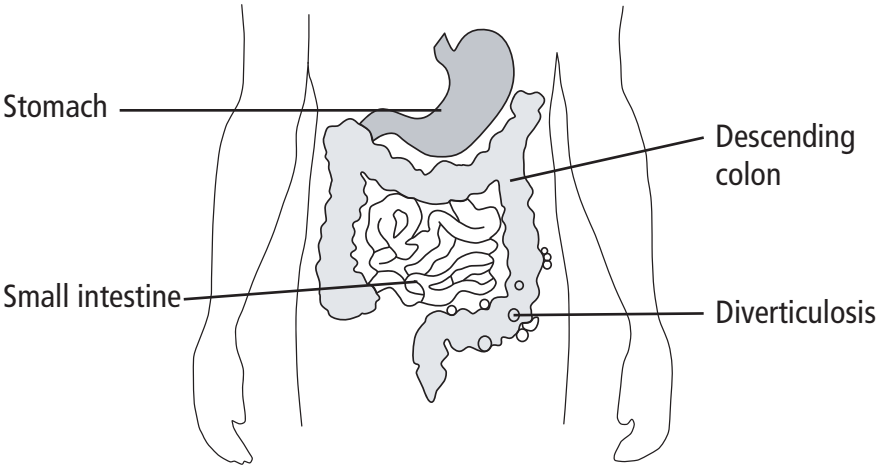
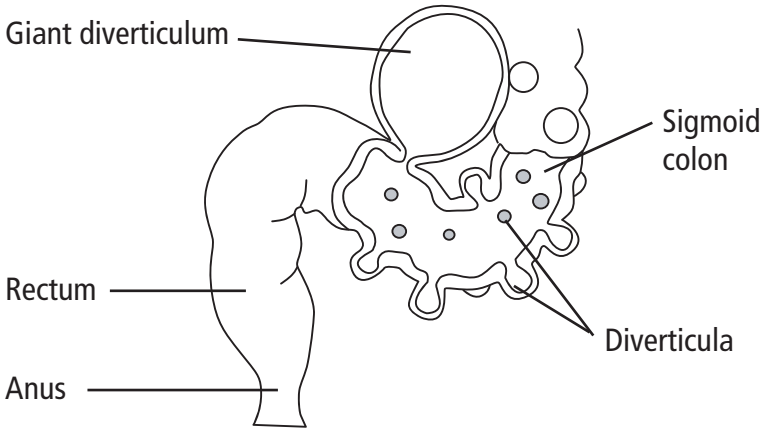
What is diverticular disease?

This is a common condition that usually affects your sigmoid colon (in the lower left hand corner of your abdomen), although any part of your small or large bowel may be affected. A diverticulum (plural diverticula) is a small bulge. When there are many diverticula in a part of the bowel this is called diverticulosis. If these are causing symptoms or problems, it becomes diverticular disease. These pockets are caused by increased pressure within the bowel itself.





Diverticulitis occurs when these pockets become inflamed.

How common is it?

Diverticular disease is common, particularly in western countries, and is linked with advancing age. In the UK, the number of people affected by diverticular disease increases from 1 in 20 at the age of 50 to 1 in 4 at the age of 85. It affects both men and women.

What causes it?

It is likely that the modern western lifestyle and diet causes diverticular disease. Diets low in fibre don't distend (swell) your bowel and are associated with increased bowel spasms. Over many years, increased pressure inside your gut causes small areas of the lining to weaken and form small pockets, or out pouchings.

In some families there is an increased risk of diverticular disease. The reason that some people with diverticulosis go on to develop diverticular disease whilst others do not is not understood.

What are the symptoms?

Many people with diverticular disease don't have any symptoms, although you may experience abdominal pain, bloating or wind. You may also have a variable bowel habit and feel that you are not able to completely empty your bowels.

Diverticulitis ranges from mild attacks of discomfort, pain and tenderness to more serious symptoms of peritonitis (inflammation of the whole abdomen) that will need hospital treatment. The main symptoms include:

- changes in bowel habit
- fever
- pain in the lower left side of your abdomen that may feel quite colicky
- distension (bloating) of your abdomen
- occasional severe pain
- occasionally, passing blood.

How is diverticular disease diagnosed?

Tests are needed to confirm the diagnosis as other bowel disorders may cause the same symptoms. These tests include:

- **Barium enema** – your colon is first cleared by taking a strong laxative. A tube is inserted into your rectum (back passage), and barium (a white fluid) is passed through the tube into your bowel. Air is then blown into the bowel so that it can be seen clearly. X-rays are taken from different positions and directions. The test takes around 30 minutes.
- **Colonoscopy** – this is a telescope examination of your bowel. Your colon is first cleared by taking a strong laxative. You are given medication to make you relaxed and sleepy. A thin camera tube connected to a camera is inserted into your rectum and along your colon. A colonoscopy is not usually painful, but may cause discomfort because of the air being blown into your bowel and the many twists and turns that the camera needs to negotiate.
- **CT scan** – this is a type of X-ray that may show the presence of diverticular disease or complications. No special preparation is needed for an ordinary CT scan but if you need a CT pneumocolon, your colon is first cleared by taking a strong laxative.

How can I help myself?

If you have early diverticular disease, you can help prevent future problems through some lifestyle changes:

- Choose a diet that is high in fibre and low in fat, containing plenty of fruit, vegetables, wholemeal bread and wholegrain cereals.
- Try to avoid medications that can make you constipated (including opiate-containing painkillers)
- Drink plenty of liquid throughout the day; don't become dehydrated.
- Take daily exercise. Regular exercise encourages normal bowel movement. Around 30 minutes of brisk walking at least five times a week is a good start.

What complications could occur?

- A diverticulum may burst and cause either an abscess or peritonitis (an infection throughout the abdomen). Peritonitis can be life threatening and requires immediate treatment in hospital.
- Occasionally, diverticulitis may result in a stricture (narrowing) in your bowel.
- Infection or inflammation may cause bleeding.
- Sometimes after an attack of diverticulitis an abnormal connection (called a fistula) with either the bladder or vagina can occur.

What treatments are available?

A high fibre diet should reduce the chances of developing diverticular disease later in life. Your diet should be balanced and include at least five daily portions of fruit and vegetables, plus wholegrains. However, once these pockets have formed they never go away.

You may benefit from:

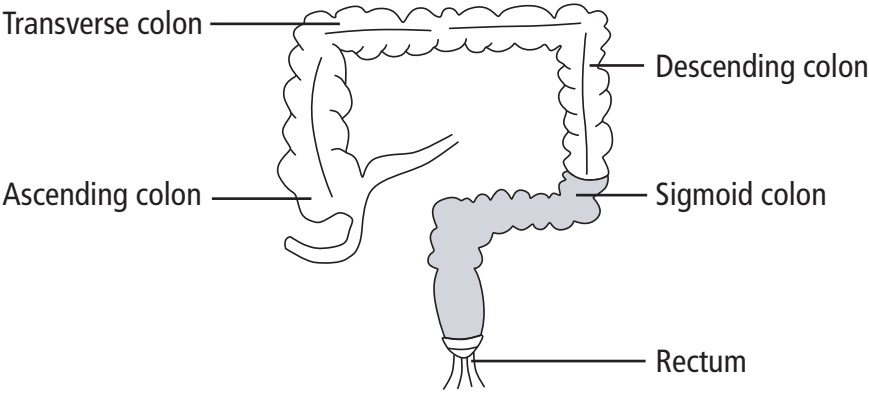
- a change in fibre in your diet
- taking mild laxatives to treat constipation
- antispasmodic tablets which help abdominal discomfort and bloating
- antibiotics for flare-ups
- an operation to remove the diseased part of your bowel.

Diverticulitis may require admission to hospital for treatment where you may be nil per mouth (nothing to eat or drink), instead having intravenous fluids and antibiotics.

An abscess may require radiological drainage. Peritonitis or obstructions are usually treated with an operation. The aim of surgery is to treat the infections and remove the diseased part of the bowel. This normally involves either a sigmoid colectomy or a Hartmann's procedure.

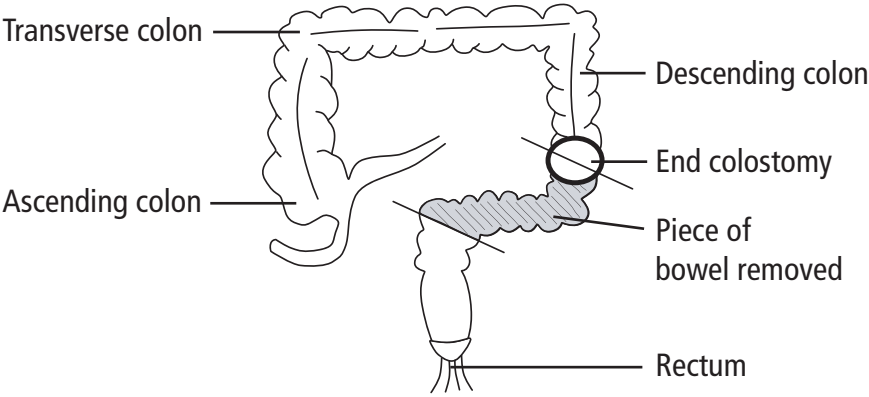
Sigmoid colectomy

This operation is performed with an incision (cut) to the middle of your abdomen, or by keyhole surgery (laparoscopically). Your sigmoid colon is removed and the two ends of your bowel are joined back together. The shaded area shows the part of the bowel that is removed.



Hartmann's procedure

This operation is performed to remove disease which affects all or part of your large bowel. A cut is made in your abdomen to remove the large bowel and a colostomy is formed on your abdomen. The rectal stump is left in place and either closed or brought up to your abdomen as a mucous fistula. Body waste will be collected from the colostomy into a pouch (stoma bag) which will need to be emptied.



What are the risks and complications of surgery?

These are major operations, which may be done when you are very ill. Post-operative complications can arise, including:

- reaction to anaesthetic
- bleeding
- infection – includes possible wound infection, infection deep inside, bladder infection, chest infection
- bruising
- blood clot in the legs (DVT) which may lead to a blood clot in the lungs (PE)
- a stroke or heart attack
- breakdown of the join in the bowel (anastomotic leak)
- occasionally, the bowel may be slow to start working again (ileus), which requires patience.
- incisional or parastomal hernia, narrowing, retraction or ischemia of the stoma.

There is an increased risk of complications if you are overweight or if you smoke.

How do I prepare for my operation?

Try to get fit, stop smoking, and get your weight down. If you have problems with your blood pressure, your heart, or your lungs, ask your GP to check that these are under control.

Your bowels may need to be empty for your operation; if so, we will give you some medication for this before your operation.

Before you are admitted to hospital for your operation you will need to have a pre-operative assessment. This is an assessment of your general health, and ensures that you are fully prepared for your operation. Check the hospital's advice about taking the pill or hormone replacement therapy (HRT); this will be discussed at your pre-assessment appointment. Also ensure that you have a relative or friend who can bring you to the hospital and take you home. Please also bring all your medicines with you to the hospital.

You will be advised when to stop eating or drinking before your operation. It is important that your stomach is empty to avoid the risk of vomiting during the anaesthetic.

You should also bath or shower before coming into hospital.

On the day of your operation

The nurses will admit you and answer any questions. You will be asked to change into a theatre gown and the surgeon and anaesthetist will visit you, and answer any questions that you may have. You will also need to sign a consent form.

You will be given blood thinning injections and need to wear special stockings to help prevent blood clots. You will also be given antibiotics to reduce the risk of infection.

What happens afterwards?

After your operation you will return to the ward area, and your vital signs (blood pressure, breathing and pulse) will be monitored. You will be encouraged to take deep breaths and cough, and sit out of bed. You may have a:

- CVP line (a drip that is in your neck)
- naso-gastric tube (a thin tube that comes out of your nose and is connected to a plastic bag) to drain your stomach
- catheter (tube) to drain your bladder
- dressing on your wounds – these may show some blood stain, which is normal
- wound drain
- either an epidural or PCA for pain relief.

The day after your operation, you will be encouraged to get out of bed and become mobile as soon as possible. Increasing your mobility and daily activity will help your recovery, and although it may feel uncomfortable, you will not harm your wound.

Your drains and tubes will be removed over the next few days. Your eating and drinking should return to normal after three or four days.

During your stay in hospital, if you or your family have any questions or concerns, please feel free to ask the ward nurses or doctors, who will be glad to help.

Will I have any pain or discomfort?

Following your operation, expect to have some pain around your wound site. You will be given painkillers to keep you comfortable; please ask for more if you need them.

You may find swallowing uncomfortable due to the naso-gastric tube.

Will I need any stitches removing?

You may have stitches or staples in your skin. If these are not dissolvable they will need removing 10-14 days after your operation. This may be done in hospital, at your GP surgery, or by your district nurse at home.

When can I resume normal activities?

When you go home, you are likely to feel very tired and will notice that you are quickly fatigued after activity. This will improve gradually and by three months you will have returned to your normal levels of activity. You may drive when you have fully recovered from your anaesthetic and operation and can make an emergency stop without discomfort and maintain full control of the vehicle. It is advisable to let your car insurance company know that you have had surgery, and check that you are covered.

What should I look out for?

If you have any of the following symptoms:

- persistent nausea and vomiting
- bleeding at the wound site
- infection in the wound site. Symptoms will include:
    - fever (temperature)
    - fluid oozing, redness, swelling at the wound site
    - increased pain
    - red and inflamed skin around the wound site.

- no bowel movement after four days
- prolonged bloating of your stomach
- increased abdominal pain.

it is important to seek advice from your GP.

If you have any further questions, please contact your GP.

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

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