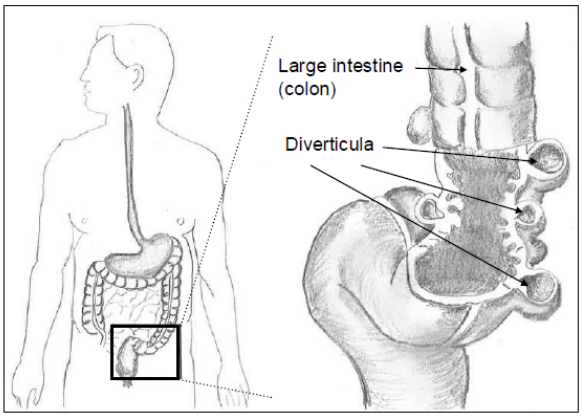
Diverticular disease

What is diverticular disease?

A diverticulum (*plural: diverticula*) is a small pouch-like structure with a narrow neck that sticks out from the wall of the gut (intestine). Diverticula usually occur in the large intestine (also known as colon), but can develop on any part of the gut. They occur at points of weakness in the gut wall.



Diverticulosis is the term used to describe when diverticula are present but are not causing any symptoms. Diverticula are often discovered when you have tests such as colonoscopy or barium enema (a type of bowel X-ray) for other reasons.
Diverticulitis refers to infection or inflammation of a diverticulum that occurs when there is thinning and breakdown of the diverticular wall. This may be caused by increased pressure within the colon or hardened particles of stool, which can become lodged within the diverticulum. About 1 in 5 people with diverticula have a bout of diverticulitis at some stage.

What are the causes?

Diverticular disease is common. Old age and diet may be the most important risk factors. The risk of developing diverticular disease increases with age and if you eat a low-fibre diet. Stools tend to be drier and smaller if you don't eat much fibre, meaning your gut muscles have to work harder. The increased pressure needed to move stools along the gut pushes a small area of gut through the muscle wall to form a small diverticulum. Diverticular disease affects men and women equally.

What are its symptoms?

Diverticulosis usually has no symptoms. However, the presence of many diverticula may cause a range of symptoms including abdominal pain and bloating, constipation and diarrhoea and flatulence.

Symptoms of diverticulitis include sharp pain in the abdomen (most commonly in the lower left side of the abdomen), fever, bloating, constipation or diarrhoea, blood in the stools, nausea and vomiting.

A diverticulum may occasionally bleed and you may pass some blood via your back passage (anus). The bleeding is usually abrupt and painless. The bleeding stops on its own in about 3 in 4 cases. Sometimes an operation is needed to stop the bleeding.

Always report bleeding from the back passage to a doctor. You should not assume bleeding is from a diverticulum. Other more serious conditions such as bowel cancer need to be ruled out.

How is it diagnosed?

Tests to confirm the diagnosis of diverticular disease include:

- Colonoscopy—a slender flexible tube with a camera attached is inserted into the anus so that the doctor can look at the whole length of the large intestine
- Barium enema – a special contrasting dye flushed into the bowel via the anus with x-rays taken
- CT scan – often used to diagnose diverticulitis and its complications e.g. abscesses
- Blood tests – to check for signs of infection
- Stool tests – to check for the presence of blood in the faeces or the presence of infection.

What are the possible complications?

Complicated diverticulitis occurs in 25 percent of cases and usually requires surgery. Complications associated with diverticulitis can include the following:

- abscess — a localized collection of pus
- fistula — an abnormal tract between two areas that are not normally connected
- obstruction — a blockage of the colon
- peritonitis — infection involving the space around the abdominal organ
- sepsis — overwhelming body-wide infection that can lead to failure of multiple organs
- perforation – a weakened pocket of bowel wall may rupture and contents of the bowel can then seep into the abdominal cavity
- haemorrhage – occurs when a small artery located within a diverticulum is eroded and bleeds into the colon

How is it treated?

People with diverticulosis who do not have symptoms do not require treatment. There is no proven way to prevent the formation of new diverticula for those with diverticulosis. Treatment revolves around the settling of symptoms. Short-term use of laxatives to treat and prevent constipation may be advised.

Treatment of diverticulitis depends upon how severe your symptoms are. Mild attacks can be treated at home with a clear liquid diet, simple pain killers like paracetamol and in some cases oral antibiotics, but should always be assessed promptly and then reviewed after 48 hours by your GP to ensure you are improving. You should present to your emergency department should you develop fever, worsening or severe abdominal pain, or become unable to tolerate fluids.

Diverticulitis can often become a medical emergency, requiring immediate medical attention and admission to hospital. If symptoms are severe then hospital admission is necessary and antibiotics, pain-relieving medications and fluids are administered directly into a vein via a drip. During this time, the gut is rested by restricting eating and drinking.

Surgery may be necessary if complications arise, or for those repeated attacks or severe bleeding.

Some people with diverticulitis may be started by their doctor on long-term use of a mild antibiotic to prevent further attacks.

What can I do to prevent diverticular disease?

- Increase the amount of fibre in your diet by increasing your daily intake of the following high-fibre foods:
  - Whole grains, fruit and vegetables
  - Wholemeal bread and flour (for baking)
  - Wholegrain breakfast cereals
  - Brown rice and wholemeal pasta
  - Wheat bran
  - Beans, pulses and legumes
- Consider using a fibre supplement (such as psyllium)
- Drink plenty of fluids to ensure your stools are soft, moist and easy to pass
- Exercise regularly