



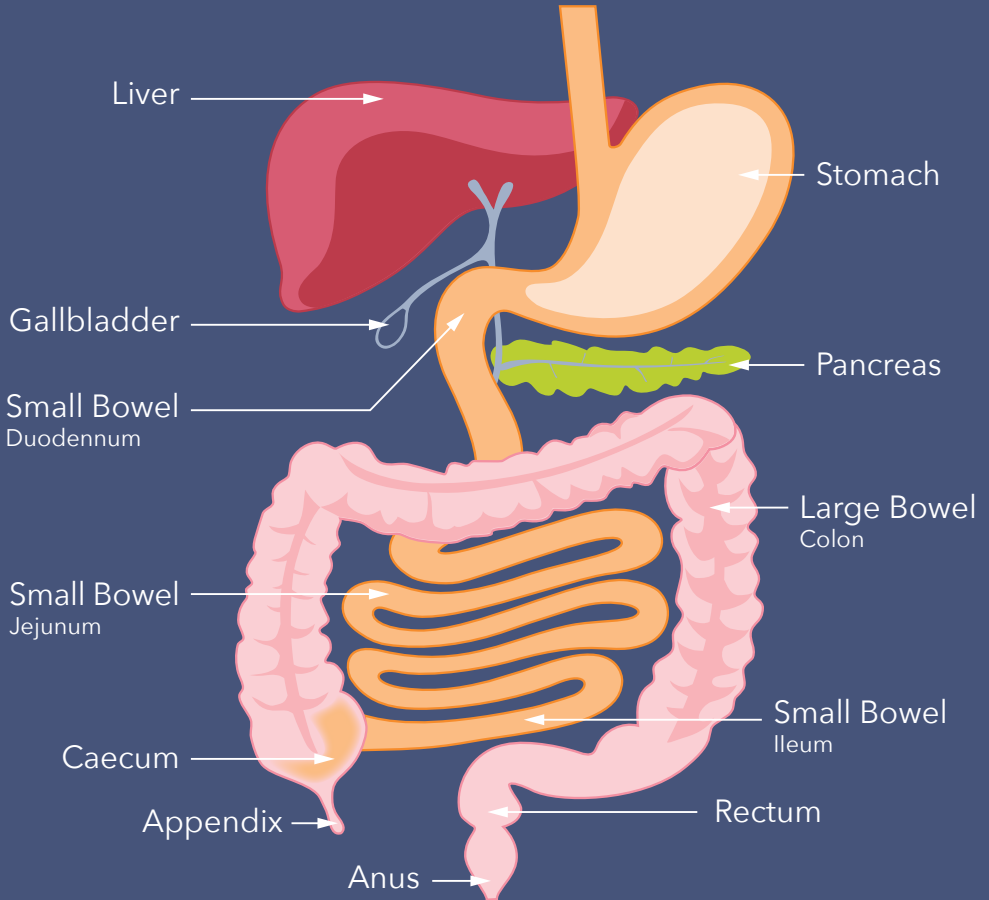
All you need
to know about

DIVERTICULAR DISEASE



Our Digestive System

The Digestive System runs from the mouth to the anus and includes the stomach, the large and small bowels (intestines) and a number of accessory organs. The role of the digestive system is to turn food and liquid into the building blocks that the body needs to function effectively.



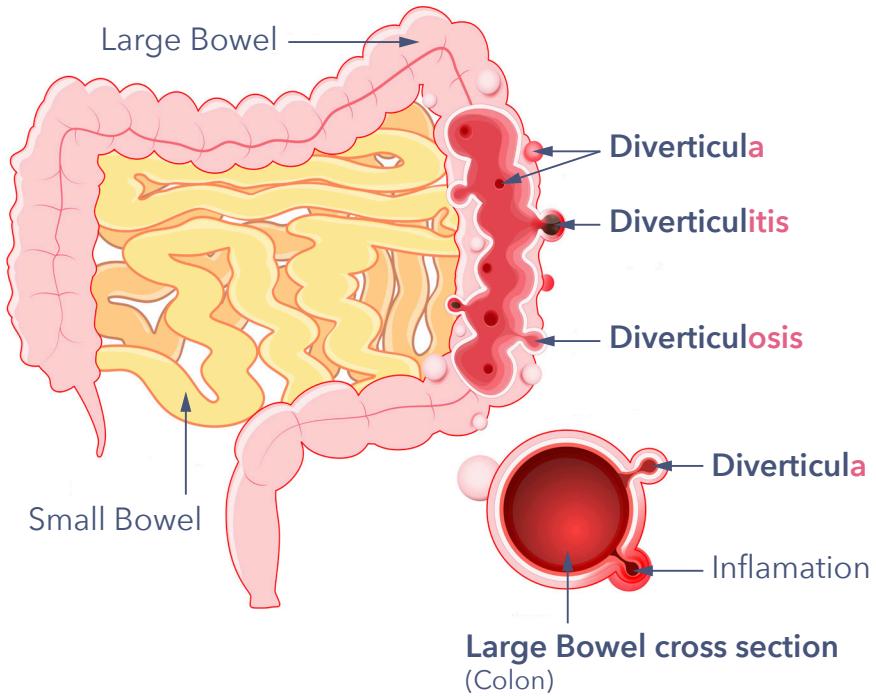
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This booklet is about Diverticular Disease of the large bowel (colon).

Diverticular disease is a diagnosis given in people who have symptoms and is extremely common in the developed world. Between 1 in 3, increasing to 1 in 2 people will be affected during their lifetime. Some doctors also suspect that diverticular disease has a genetic component¹.

What does diverticular disease look like?



Diverticulum: A diverticulum is a small pouch about 1cm in size which sticks out from the wall of the colon.

Diverticula: This refers to more than one **Diverticulum**. The most common site for diverticula is on the lower part of the large bowel on the left-hand side. They are permanent unless the affected part of the bowel is surgically removed.

Diverticulitis: Diverticulitis means the condition that occurs when a single diverticulum or several diverticula become inflamed or infected.

Diverticulosis: You may have heard the term diverticulosis, which means the presence of diverticula, this is not the same as diverticular disease. Most people with diverticulosis do not have, or go on to develop, diverticular disease. The great majority of people with diverticulosis will live out their lives never having symptoms.

What has caused the development of diverticula?

The short answer is that it is still uncertain what causes diverticula to develop. The most important risk factor is age: after the age of 40 they become commoner with increasing age, such that about 2 out of 3 people will develop diverticula during their lifetime.

A lot of interest had been placed in lifestyle factors. Obesity and a high body mass index are commoner in patients with diverticula. It was widely thought that people who had a low fibre diet were more likely to develop diverticula but has not been shown to be the case in recent studies². Similarly, the idea that constipation causes the development of diverticula has also not been found to be correct^{2,3,4}.

How is diverticular disease diagnosed?

Diagnosis is made by examination of the inside of the colon. During the examination the doctor or nurse endoscopist will be looking for other abnormalities that could be causing your symptoms and so diagnosis is only confirmed once other conditions have been ruled out.

This can be done via:

Colonoscopy or sigmoidoscopy

A tube with a camera is passed into the colon via the back passage to view the inner surface of the colon. A sigmoidoscopy is a similar procedure that views less of the colon. Medication can be given to make the procedure comfortable and you will be given something before the procedure to ensure you completely empty your bowels.

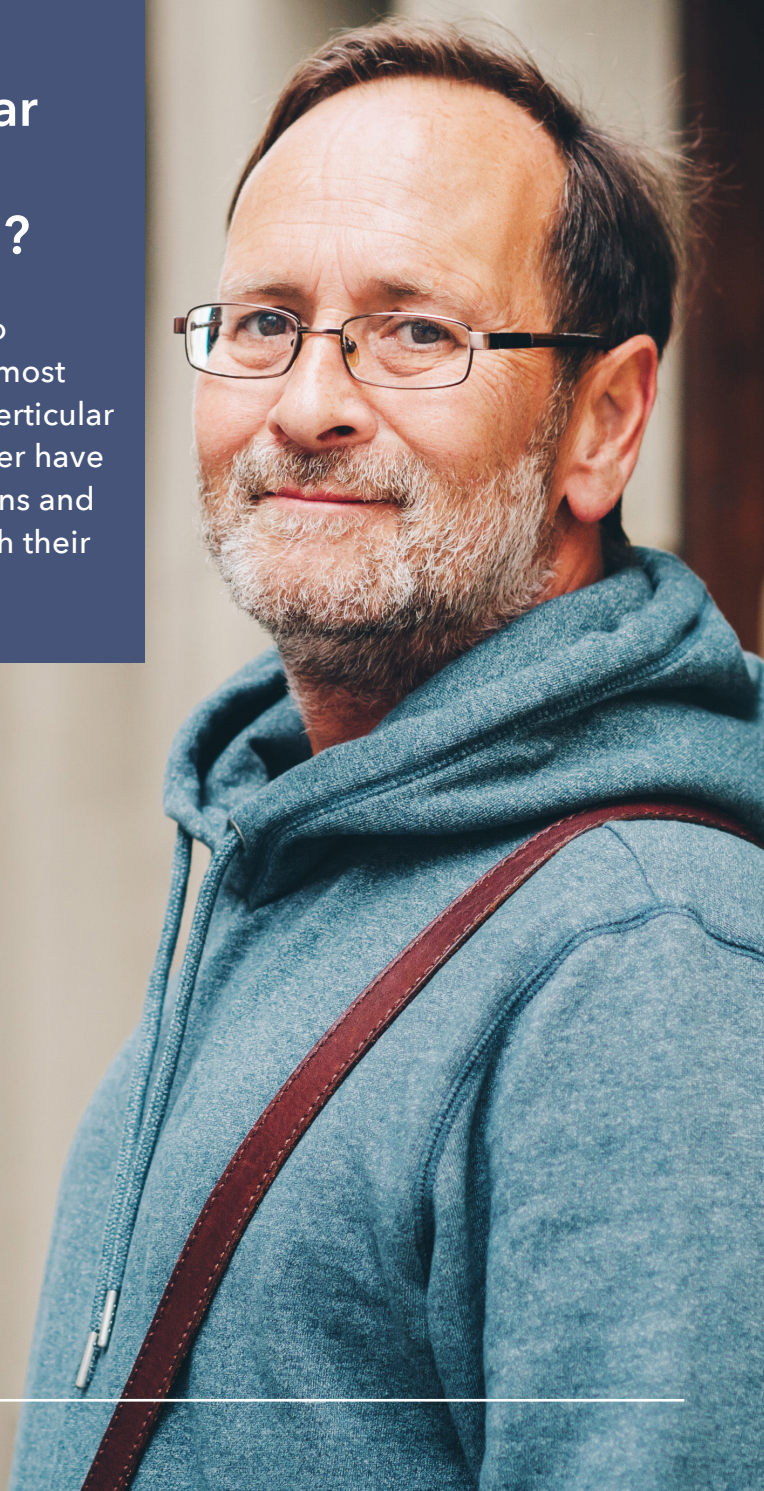
CT scan

This is a non-invasive x-ray-based test although, as with the colonoscopy, you will be required to completely empty your bowels beforehand.



How can diverticular disease affect you?

It is important to remember that most people with diverticular disease will never have any complications and can carry on with their lives as normal.



Symptoms

The most common symptoms include lower abdominal pain, bloating (increase in abdominal size due to gas), change in bowel habit (diarrhoea or constipation) and mucus or blood in the stool. The pattern of symptoms varies from one person to the next, but pain is often crampy, comes and goes and is commonly focussed in the left side of the abdomen where the diverticula most often occur. In a small number of people, and people of South Asian origin, symptoms may occur on the right-hand side⁵ of the abdomen. Pain and bloating can often start after food is eaten and may ease when a stool or wind is passed. Many people experience a change with diarrhoea one day and constipation the next.

It is important to remember that many symptoms of diverticular disease are very similar to those of more serious conditions such as bowel cancer so do not assume that they are due solely to diverticular disease.

If you experience a change in symptoms or develop new symptoms, consult your doctor as they may want to check you over to make sure something completely unrelated to diverticular disease is not developing instead. The reason for this is that symptoms of diverticular disease may overlap with conditions such as irritable bowel syndrome (IBS), colitis and cancer.⁵

Complications

Relatively few patients ever get complications severe enough for them to be admitted to hospital and very few people die of this very common disease. However, in some cases, complications can occur and these include:

Inflammation (Diverticulitis)

This is the most common complication, occurring between 1 in 10 to 1 in 4 people with the condition. The current theory is that the inflammation and/or infection occurs as a result of an overgrowth of bacteria in the diverticula. Signs that this has happened include worsening abdominal pain, high temperature, nausea (feeling sick) or vomiting (being sick). If any of these symptoms are experienced, medical help should be sought immediately. Complicated diverticulitis requiring hospitalisation is normally treated with antibiotics and fluids.

Sometimes, when infection is severe, it can cause further complications such as a collection of pus (abscess), an obstruction (blockage of the bowel) or a perforation. If these complications arise, an operation to remove part of the colon, or a needle placed into the collection of pus may be needed.

Blockage of the gut

Scar tissue can sometimes form around the inflamed diverticulum. This may lead to narrowing of the colon, which can cause a blockage.

Perforation

Perforation in the diverticulum: sometimes an inflamed pouch (diverticulum) can burst, breaching the wall of the bowel and leading to peritonitis, a serious condition with widespread inflammation in the whole of the abdomen.

Bleeding

Large amounts of bleeding from the back passage: a blood vessel in the wall of a diverticulum can rupture leading to bleeding into the colon.

Fistulas

Rarely, the presence of diverticula may lead to formation of abnormal connections or tracts (fistulas) between the gut and other organs such as the bladder or vagina. Signs of this include small amounts of stool in the urine or foul-smelling discharge from the vagina and, if diagnosed, surgery is usually necessary, so it is important to see a doctor if you have these symptoms.

What treatment is available for diverticular disease?

What causes flare-ups of diverticular disease or the development of complications such as acute diverticulitis is presently unknown, despite much research. Following the diagnosis of diverticular disease, many people will ask their doctor for advice on how to prevent development of complications.

Diet

You are advised to eat a healthy, balanced diet including whole grains, fruit and vegetables.

For a healthy diet, the aim is to have a fibre containing starchy food with each meal, plus five portions of fruit and/or vegetables per day and try to drink at least two litres (eight to ten cups) of fluid every day to help the fibre pass through the bowel. A portion of fruit and vegetables is 80g (or a handful). Smoothies are 150ml portion as they generally contain a lower amount of fibre. If you don't have much fibre in the diet or suffer from constipation it is important to increase your intake slowly to avoid symptoms of bloating and flatulence, it may take some time for improvements to be seen.

You can request the Guts UK
**'Healthy Eating and the
Digestive System'** leaflet or
download it from the Guts UK
website gutscharity.org.uk



Foods containing fibre

Starchy foods	Wholemeal, brown or granary bread. Oat or rye bread. Wholegrain crackers, wholegrain rice and wholegrain pasta. Oats or wholegrain breakfast cereals, muesli, weetabix. Bran-based cereals and shredded wheat. Chapatti or naan bread made with wholegrain flour.
Fruit	All varieties are suitable including fresh, frozen, dried and canned.
Vegetables	All varieties are suitable including fresh, frozen, dried and canned. Vegetable soup.
Protein containing foods	Chickpeas, lentils, peas and beans, dhal. Nuts and seeds.
Desserts and other snacks	Puddings containing fruit and dried fruit, oat-based crumble toppings, biscuits containing wholegrain flour. Nuts, dried fruit and seeds, flapjack, muesli bars and fruit bars based on dates. Chocolate containing nuts and dried fruit, root vegetable crisps.
Drinks	Smoothies and milk shakes containing the whole fruit. (150ml portion size. Only one portion per day counts as one of your 5 fruit and/or vegetables per day)

If you also have been diagnosed with irritable bowel syndrome (IBS) increasing wheat bran intake can make symptoms worse for some people⁶, therefore if symptoms continue increase bran intake using non-wheat bran alternatives (e.g. oat, rice) as better tolerated alternatives. There is no need to avoid seeds, nuts, popcorn or fruit skins⁵.

If you change the type of food you eat it is important to ensure your diet remains balanced and nutritious. The NHS website has useful information on what constitutes a healthy diet. It also contains the Eatwell Guide, a visual representation of which food groups you need to eat, and in what proportions, to achieve a balanced diet. Visit the NHS website at: www.nhs.uk/live-well/eat-well

The British Dietetic Association (BDA), the association of UK dietitians, also has information on healthy eating on their website. Visit their Food Facts section at: <https://www.bda.uk.com/food-health/food-facts.html>

You can also request the Guts UK 'Healthy eating and the digestive system' leaflet or download it from the Guts UK website. gutscharity.org.uk

If you have any other restrictions to your diet or you are having problems with regards to knowing what to eat or have continuing symptoms of gas, bloating and diarrhoea ask your consultant or GP to see if further tests are required. You can also ask for a referral to a registered dietitian who can provide more individual dietary advice.

You should take regular exercise⁵, lose weight if you are overweight or obese⁵, and stop smoking⁵. Although the studies on which these recommendations are made are not highly conclusive for reducing the risk of developing a complication from diverticulitis, such changes to a person's lifestyle will bring additional wider benefits in general health and wellbeing.

The NHS website has information about activity
<https://www.nhs.uk/live-well/exercise/>

and you can check your weight is healthy here
<https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/>

There are inconclusive results from the use of probiotics to prevent diverticular disease progressing, so use of probiotics cannot be advised at this time.

Medications

There is no specific medical treatment for the general symptoms of diverticular disease although if you have been experiencing constipation, check with your pharmacist or doctor if the use of a bulk-forming laxative might help⁵. Painkillers such as codeine should be avoided as they tend to worsen and can even cause constipation, a pharmacist can provide advice with regards to alternatives for abdominal pain. For diverticulitis your doctor may adopt a 'watch and wait' approach^{5,7,8} and may consider antibiotics for those who are unwell, have a compromised immune system or other relevant long-term conditions. Tell your doctor immediately if your symptoms become worse in this situation.

Surgery

This is usually only undertaken after an episode of inflammation because an abscess has formed around the colon, or infection from the inflamed perforated diverticulum has spread more widely within the abdomen. The commonly performed operation cuts out the segment of the bowel with the infected pockets. One end of the bowel is brought up to the skin as a stoma where the bowel content comes into the bag. This, in most instances, can be reversed later, if the inflammation is not too severe and the bowel can be joined back together.

Myths

If you look on the internet you will unfortunately still see older information about diverticular disease development alongside incorrect advice about avoiding certain foods. You may have read that with a diagnosis of diverticular disease you need to avoid sources of tough fibre such as seeds, nuts, popcorn or fruit skins⁵, it was previously felt that these foods were likely to lodge in the diverticula and cause diverticular disease and diverticulitis. This is not the case so these foods can be consumed as part of a healthy balanced diet.

What about diverticulitis?

There has been a review into whether reducing fibre intake during acute diverticulitis is helpful in reducing hospital stay, digestive symptoms or recurrence of diverticulitis. No evidence was found that following low fibre or low residue diets during was more helpful for people with uncomplicated diverticulitis than a more liberalised (typical) diet⁵.

There is no evidence that fibre modification is helpful in treating uncomplicated diverticulitis. Advice may however be different when complications of diverticulitis occur for example fistulas, abscesses, perforation, bowel blockages or after surgery to the bowel. Your doctor or dietitian can provide further advice as needed.

There is no evidence that probiotics are helpful in treating episodes of diverticulitis.

What to ask your doctor

These are some useful questions you can ask your doctor:

- *Has my colonoscopy/CT scan ruled out any other conditions?*
- *Are there any issues of potential concern in my colon?*
- *Would you refer me to a dietitian for further help with my diet?*
- *What monitoring or follow up will I be offered?*

Where can I get more information about treatment?

The National Institute of Health and Care Excellence (NICE) make evidence-based recommendations on a wide range of topics in health, public health and social care. They recommend the most effective ways to prevent and manage specific conditions and to improve health and manage medicines in different settings. You can find their guidelines on diverticular disease using the following link.

NICE <https://www.nice.org.uk/guidance/NG147>

How can I be involved in research into diverticular disease?

It is important that research continues into the causes and treatments for diverticular disease. If you are interested in taking part in research then contact Guts UK or the National Institute of Health Research (NIHR) website. You can donate to Guts UK and join our community using the donation form on the back of this leaflet.

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Guts UK

The charity for the digestive system

People are suffering. People are dying. All because of a lack of knowledge about our guts. Guts UK charity exists to change this.

Our guts have been underfunded, undervalued and underrepresented for decades.

It's time the UK got to grips with guts.

With new knowledge, we will end the pain and suffering for the millions affected by digestive diseases. Guts UK's research leads to earlier diagnoses, kinder treatments and ultimately a cure.

Discover more about our fascinating digestive system at gutscharity.org.uk



Join us

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Let's get to grips with our guts, and save lives.

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Grace's Story

Grace could wait a lifetime for a cure.

Grace's parents knew something was wrong with their beautiful baby when they tried to wean her onto finger food. Their usually happy little girl kept choking, coughing, and being sick. Terrified, they took Grace to hospital where she was eventually diagnosed with achalasia.

Grace is now three years old and unless we find a cure she will spend a lifetime struggling with the pain and shame of a condition that prevents her from swallowing food.

But there is hope. Research into achalasia could lead to a clinical trial. A clinical trial could lead to a cure. And by the time Grace may be thinking about starting a family of her own, achalasia could be a condition of the past.

When you support Guts UK, you can fund life-changing research that will end the pain and suffering of children like Grace.



Donation Form



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