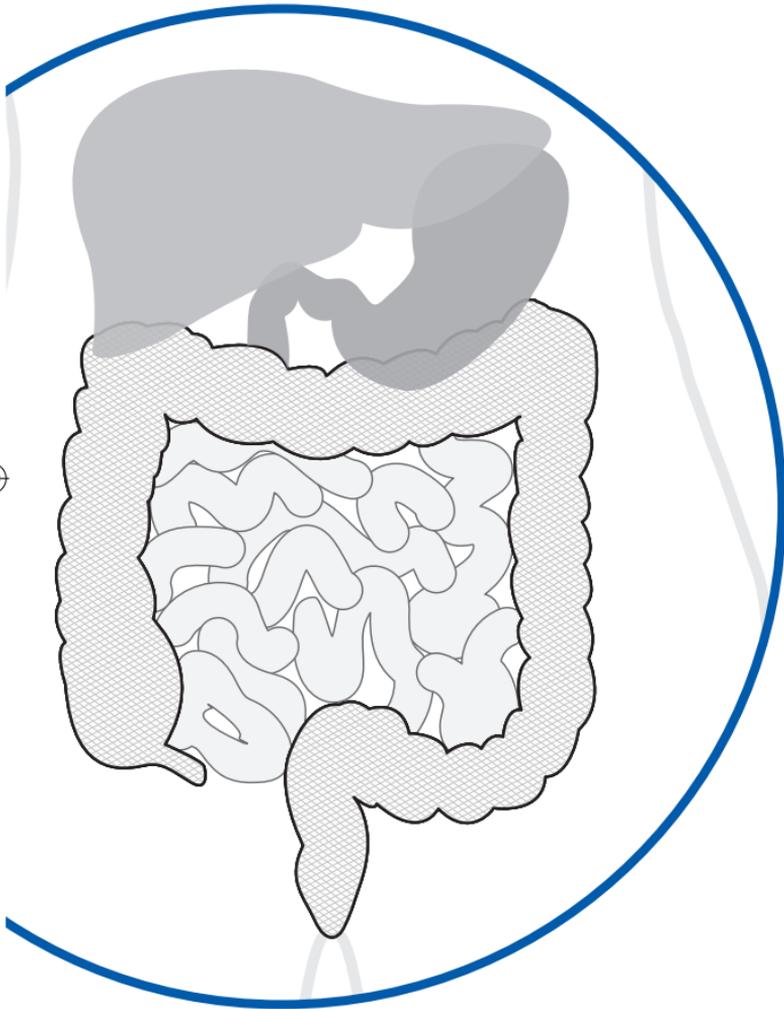


MEDICAL CAUSES OF CHRONIC DIARRHOEA



Publisher

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INTRODUCTION

What is chronic diarrhoea?

Diarrhoea is defined as the passage of loose or watery stools more than three times daily and/or stools with a volume of greater than 200g or 200ml. Chronic diarrhoea is when these symptoms have continued for more than three to four weeks. According to figures from the British Society of Gastroenterology, around 4-5% of adults will suffer from chronic diarrhoea (without accompanying stomach pain) at some time in their life.

Even in a mild form, chronic diarrhoea can cause inconvenience and embarrassment. At the more severe end of the spectrum, sufferers may be unable to work, enjoy a social life or even leave their own home.

One of the key issues around diagnosing chronic diarrhoea is that it may be caused by a wide range of medical conditions. A study published in the Journal of United European Gastroenterology in 2014 reported that 1 in 10 patients who are told that they are suffering from irritable bowel syndrome (IBS) may actually be misdiagnosed and have inflammatory bowel disease instead.

Some of the more common medical causes include inflammatory bowel disease (Crohn's disease and ulcerative colitis), dietary (coeliac disease), malabsorption syndromes in which food cannot be digested and absorbed and chronic infections. Patients who undergo bowel surgery, or have had pelvic radiotherapy may also be at risk.

Here, with the help of Chris Probert, Professor of Gastroenterology at the University of Liverpool and Consultant at the Royal Liverpool Hospital, along with Professor Nick Read from the IBS Network, we highlight some of the main medical causes of chronic diarrhoea, their associated symptoms, the correct diagnostic tests to ask for and the treatment you can expect to receive for that condition.

INFLAMMATORY BOWEL DISEASE (IBD)

IBD is an umbrella term for a group of inflammatory conditions including ulcerative colitis, Crohn's disease and microscopic colitis. It is estimated that around 260,000 people in the UK suffer from a form of IBD.

Diarrhoea is a major symptom of all forms of IBD but the type of diarrhoea will vary depending on the condition.

1

CROHN'S DISEASE

2

ULCERATIVE COLITIS

3

MICROSCOPIC COLITIS

1 CROHN'S DISEASE

What is it?

An inflammatory disease which can affect any part of the gastrointestinal tract from the mouth to the anus. It is thought that the immune system is activated by a combination of genes and environmental factors due to an attack of certain bacteria in the gastrointestinal tract and, in doing so, causes inflammation and ulceration. It is a lifelong disease but is known as 'remitting relapsing' which means it may come and go.

Type of diarrhoea

The damaged cells of the intestinal wall are unable to absorb the usual levels of liquid, food and nutrients including water, fat and bile acids (see bile salt malabsorption). These are passed straight through the body and end up as watery or sometimes explosive stools. A high fat content can sometimes result in bulky, smelly or floating stools.

In others, the diarrhoea occurs as a result of inflammation in the colon. These patients have loose, rather than watery, stools. There may be blood in the stools.

During a 'flare up', the diarrhoea can become severe and persistent, sometimes resulting in faecal incontinence.

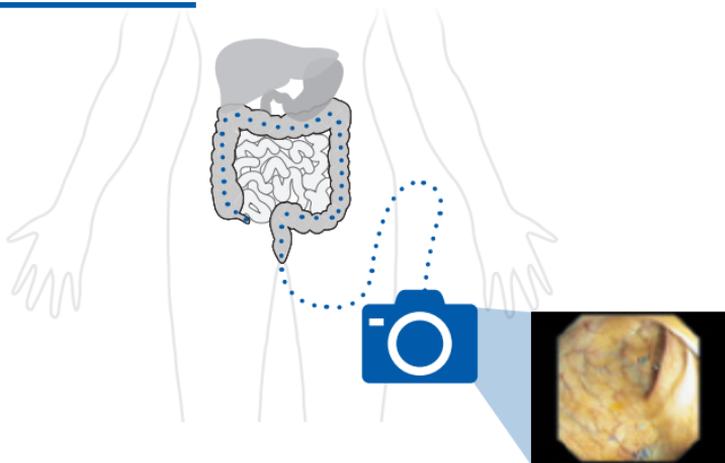
Other symptoms

Abdominal pain, weight loss, mouth ulcers, fatigue and anaemia.

How is it diagnosed?

Crohn's disease is usually diagnosed by looking for inflammatory markers in stools and, if suspected, confirmed by a colonoscopy and possibly biopsy of the affected area. X-rays or scans of the small intestine may also be undertaken.

colonoscopy



How is it treated?

There are three main types of drugs treatment:

- i) Anti-inflammatory drugs to attempt to calm the inflammation, which can include 5 ASAs (aminosalicylates), corticosteroids (steroids), immunosuppressants, and biological (anti-TNF) drugs.
- ii) Symptomatic drugs to treat the various conditions associated with Crohn's, which can include anti-diarrhoea drugs and painkillers.
- iii) Antibiotics.

Surgical removal of the inflamed section of the bowel can also be considered for severe cases.

2 ULCERATIVE COLITIS

What is it?

Inflammation of the inner lining of the rectum and the colon (large intestine or colon). The main difference between Crohn's disease and ulcerative colitis is the part of the gastro intestinal tract that is affected. Ulcerative colitis is confined to the colon where the unabsorbed body waste is collected before it is expelled via the rectum. When the colon becomes inflamed or ulcerated it is less able to absorb and hold water or waste.

Type of diarrhoea

Diarrhoea is watery and frequent. During a 'flare up', the diarrhoea can become severe and persistent, sometimes resulting in faecal incontinence. There may be blood, mucus or pus in the stools as a result of the ulceration.



Other symptoms

Weight loss, mouth ulcers, fatigue and anaemia.

How is it diagnosed?

Ulcerative colitis is usually diagnosed by looking for inflammatory markers in stools and, if suspected, is confirmed by a colonoscopy or endoscopy and possibly biopsy of the affected area.

How is it treated?



As Crohn's disease.



3 MICROSCOPIC COLITIS

What is it?

Microscopic colitis is an umbrella term for two further forms of IBD called lymphocytic colitis and collagenous colitis. In lymphocytic colitis, the inflammation is thought to be caused by an increase in the white blood cells within the lining of the colon. These lymphocytes usually fight infection and can cause inflammation. In collagenous colitis the lining of the colon has a thicker than usual layer of collagen which upsets the usual balance of absorption of water and nutrients.

The main difference between microscopic colitis and other forms of IBD such as ulcerative colitis and Crohn's disease is how they appear during colonoscopy or under a microscope. With Crohn's or ulcerative colitis the inflammation on the lining of the bowel wall is usually very clear. With microscopic colitis the changes are in the lining of the wall, which means that when viewed with the naked eye, the colon will look normal. It is not until biopsy samples are taken from inside the lining of the colon and specially checked in a laboratory that microscopic colitis becomes apparent. For this reason it is thought that many people who have microscopic colitis are not being correctly diagnosed and are instead classified as suffering from non-specific IBS – irritable bowel syndrome and denied the correct treatment.

Type of diarrhoea

Watery, sometimes explosive but does not contain blood or pus. It may begin very suddenly at any time of the day or night resulting in faecal incontinence and can continue for several hours at a time.



Other symptoms

Bloating, sometimes abdominal pain and tiredness.

How is it diagnosed?

As microscopic colitis can manifest inconsistently throughout the colon, it is important that biopsies are taken from several different sites in the colon and then examined under a microscope specifically for the condition. Sometimes diagnosis is made by eliminating other, similar conditions such as Crohns disease, colitis or coeliac disease, although a definite diagnosis using biopsy is essential.



How is it treated?



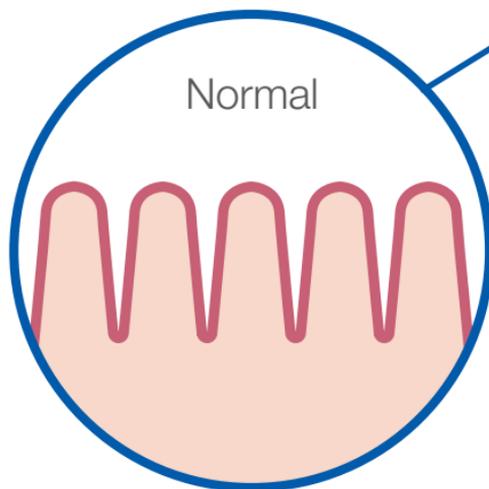
Mild microscopic colitis can be treated with anti-diarrhoeal medication. However the only licensed treatment for this condition is a topical steroid called Budesonide.

COELIAC DISEASE

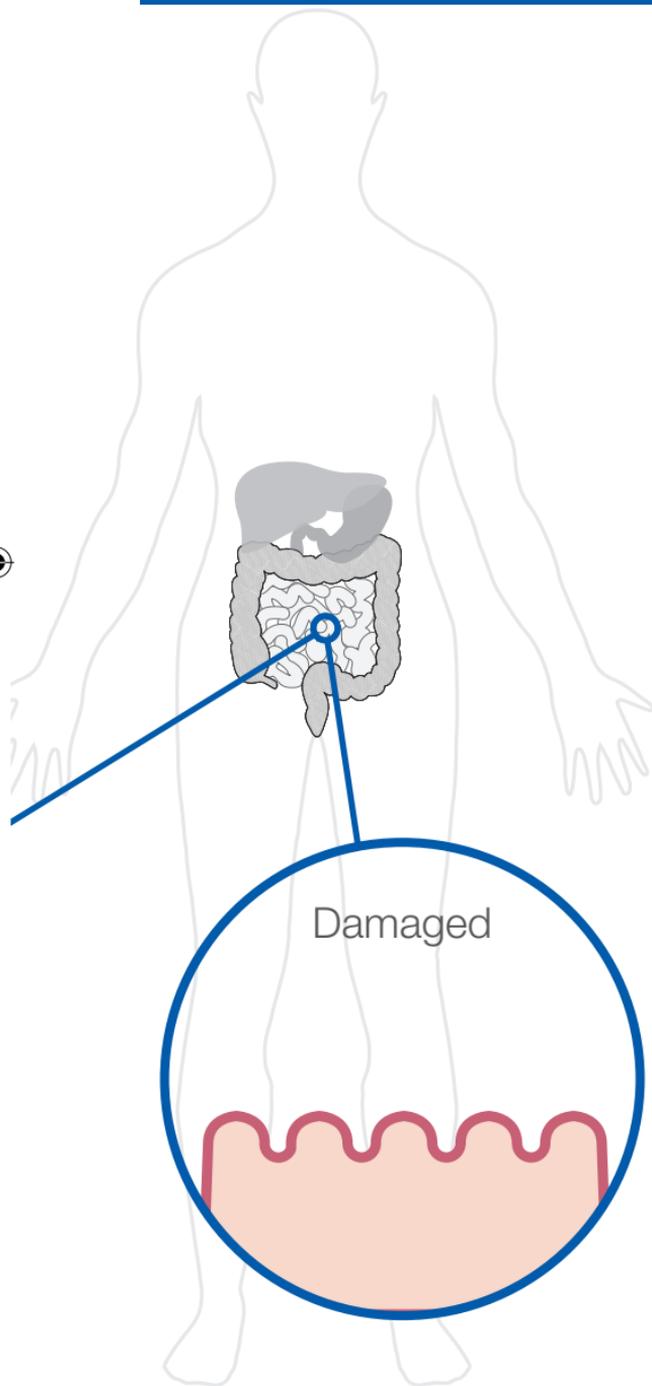
What is it?

An autoimmune condition where the bodies defence system (the immune system) attacks healthy tissue in the small intestine. The immune system interprets gluten, found in cereals such as wheat, as a threat to the body and attacks it whilst it is in the small intestine. In doing so the immune system also damages the internal surface of the small intestine and its ability to absorb certain foods correctly.

Around 1 in 100 people in the UK are thought to suffer from coeliac disease with varying severity, although some experts believe that this may be an underestimate. In particular, it is thought that possibly 4% of people currently diagnosed as having IBS may actually be suffering from the condition.



Damaged surface of the small intestine in coeliac disease



Type of diarrhoea

In mild coeliac disease, diarrhoea can be intermittent and may alternate with constipation.

In severe coeliac disease, diarrhoea can be severe and may occur at night. Because of the inability of the damaged intestine to absorb food properly, stools may contain high levels of fat making them very smelly, frothy and they may be hard to flush away. It is extremely rare for the stools to contain blood.

Other symptoms

It is often associated with bloating after meals. In addition, there may be nausea, fatigue, abdominal pain, weight loss, anaemia, and failure to thrive in infants.



How is it diagnosed?

A blood test for antibodies to gluten is followed by a biopsy of the small intestine.

How is it treated?

There is no medical treatment available but by removing gluten from the diet, you can control and even eradicate the symptoms.



BILE SALT MALABSORPTION (BSM)

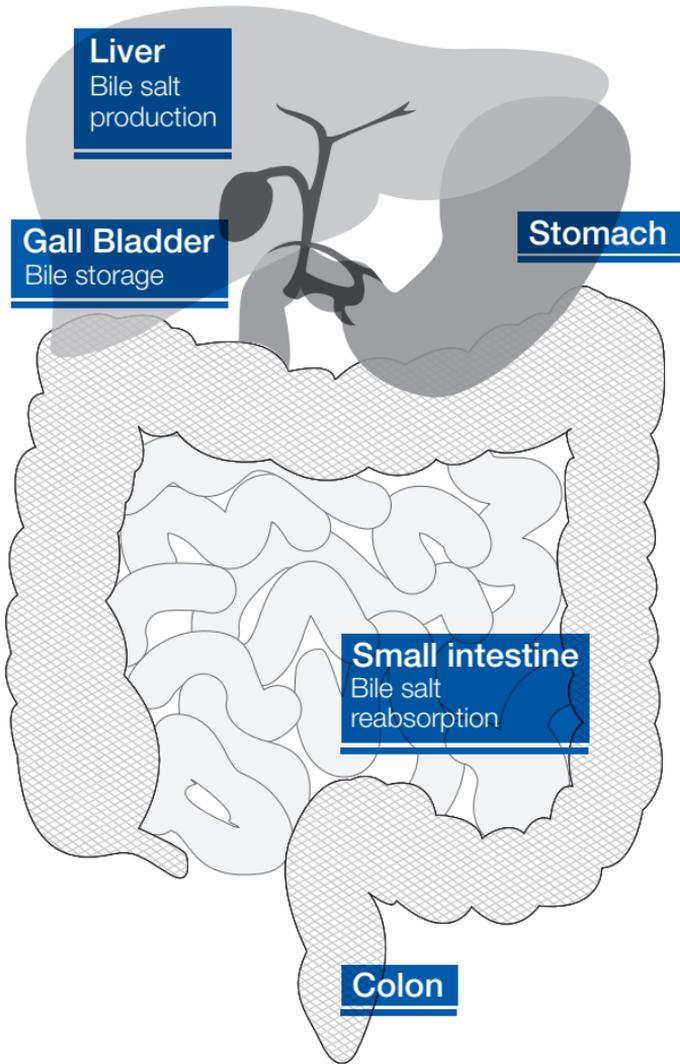
What is it?

Bile salts are vital compounds that help in the breakdown of fat in the intestine. They are formed in the liver from cholesterol and then stored in the gall bladder until needed.

During digestion of food, most of the bile salts are re-absorbed and returned to the liver with the remainder excreted via stools. However bile acids require a finite time to be reabsorbed, so if this process is disrupted, for example from damage caused by surgery, or radiation, or from serious conditions such as Type II diabetes, Crohn's disease, chronic pancreatitis or peptic ulcer, bile salts enter the colon. Here their presence stimulates the production of water and sodium secretion, which increases the speed at which faeces are pushed through the colon. In addition, according to research carried out at Imperial College London, as many as a third of all patients in the NHS who are currently being treated for irritable bowel syndrome where diarrhoea is the predominant symptom, have bile salt malabsorption. This is probably because in IBS diarrhoea, food usually passes very rapidly through the small intestine, reducing the time for the bile salts to be properly re-absorbed.

Type of diarrhoea

Watery explosive diarrhoea, often urgent and sometimes several times a day, often accompanied by cramps. Diarrhoea can be pale and greasy looking.



How is it diagnosed?

The SeHCAT test. SeHCAT is a radioactive, synthetic bile salt. The patient swallows a capsule containing SeHCAT and body scans are taken seven days apart to test how well the compound is retained or lost from the body.

How is it treated?

For those with mild BSM, anti diarrhoeal drugs such as Imodium may be useful. However the main drugs used are bile acid sequestrants (colestyramine and colestipol). These bind with bile acids and prevent them from irritating the colon.

Irritable Bowel Syndrome (IBS)

What is it?

IBS is an umbrella term for a collection of unexplained symptoms relating to the colon. These can include abdominal pain and spasms, diarrhoea, constipation or a combination of both, abdominal bloating, excessive rumbling and wind, urgency and incontinence and rectal pain. IBS is an extremely common cause of diarrhoea, affecting about 15% of the UK population at any one time.

There is no specific cause of IBS, although it may be instigated by a gastrointestinal infection (gastroenteritis) or a traumatic experience. Symptoms may also be triggered by specific foods, especially those rich in fat or fermentable carbohydrates (high FODMAP foods) and by changes in mood induced by stress.

IBS can be a lifetime condition but for some people the IBS may come and go and for others it may just be a temporary condition.

Type of diarrhoea

Diarrhoea associated with IBS can be loose, sloppy or watery, sometimes alternating with constipation and often following stomach spasms. There may be urgency – a desperate need to go to the loo – and faecal incontinence.

Other Symptoms

Other symptoms may include headaches, dizziness, backache, passing urine frequently, tiredness, muscle and joint pains, ringing in the ears, indigestion, belching, nausea, shortness of breath, anxiety and depression.

How is it diagnosed?

There is no definitive test for IBS. The condition is usually diagnosed with a combination of a careful medical history, physical examination and the ruling out of other bowel conditions such as Crohn's disease, coeliac disease and ulcerative colitis. You should be screened for these conditions if you have been suffering from IBS symptoms for more than three months.

How is it treated?

As there is no definitive diagnosis there is no cure for IBS. Treatment will vary according to the likely cause. Symptoms such as diarrhoea can be managed with anti-diarrhoea medication including Imodium or bile acid sequestrants, and antispasmodics may be useful for abdominal cramping.

Most doctors encourage self management. This includes: always reporting red flag symptoms such as blood in the stools or weight loss, which might indicate inflammatory bowel disease, coeliac disease or cancer; leading a balanced lifestyle; reducing and managing stress; identifying and restricting fatty or high FODMAP foods that might trigger symptoms.

For further information, consult The IBS Network's IBS Self Care Plan (www.theibsnetwork.org/the-self-care-plan).

Glossary

Absorption

Process by which substances are taken into the blood or lymphatic system through the skin, mucous membranes or other tissues

Anaemia

An abnormality of the blood caused by a deficiency of haemoglobin or in the number of red blood cells (erythrocytes)

Antibody

A blood protein produced in response to and counteracting a specific foreign substance

Autoimmune

When the immune system makes a mistake and attacks the body's own tissues or organs

Biopsy

A procedure to remove a piece of tissue or a sample of cells from the body so that it can be analyzed in a laboratory

Bile acid sequestrants

Resins that bind bile acids together to enable the bile acid to be excreted without causing diarrhoea

Bile salts

Made in the liver and released into the small intestine when food is eaten to help digest the fat as it travels through the small bowel

Chronic pancreatitis

A condition where the pancreas becomes permanently damaged due to inflammation

Colon

The large bowel

Colonoscopy

The examination of the large bowel and the end part of the small bowel with an endoscope (see also Endoscopy)

Endoscopy

Examination of an inner part of the body using an instrument called an endoscope (thin, flexible telescope with a light and video camera)

Fatigue

Also referred to as tiredness, exhaustion and lethargy - describes a physical and/or mental state of being tired and weak

Faecal incontinence

The inability to control the passing of wind or stools (faeces) through the anus

Gastrointestinal tract (GI tract)

The system of organs which takes in food, digests it to extract energy and nutrients, and expels the remaining waste

Gluten

A protein found in wheat, barley and rye

Immune system

The system that defends us against attacks by organisms and substances that invade the body and cause disease

Immunosuppressant

A drug that lowers the body's normal immune response

Inflammation

The body's reaction to injury or infection, characterised by swelling, heat, redness and pain

Inflammatory markers

Proteins that are released from the site of inflammation and can be readily detected in the bloodstream

Malabsorption

Inadequate absorption of nutrients from the intestinal tract

Rectum

The final section of the large intestine, ending at the anus

Remitting relapsing

Symptoms are worse at times (relapse) and are improved or absent at other times (remitting)

SeHCAT

A diagnostic procedure which looks at the function of your bowel (measures the absorption of bile acid)

Steroids

A group of medicines used to prevent or control the symptoms of severe inflammation and prevent the tissue damage that may otherwise result

Surgical resection

The surgical removal of part of an organ or body structure

Ulceration

The formation or development of an ulcer

Further information

you...track

The smartphone app that helps monitor the activity of ulcerative colitis.

you...track uses a tool called the simple clinical colitis activity index (SCCAI - also called the Walmsley index). This is a symptom measuring system that has been used to monitor ulcerative colitis disease activity for many years in clinical studies.

Adapted for use on a smartphone, you...track allows you to:

- Monitor and record your symptoms in a simple and intuitive way
- Set treatment reminders to help take your medication as prescribed
- Send a report to your doctor or specialist nurse ahead of clinic appointments

Search for 'you-track' in your app store or, alternatively, download it using the links below:

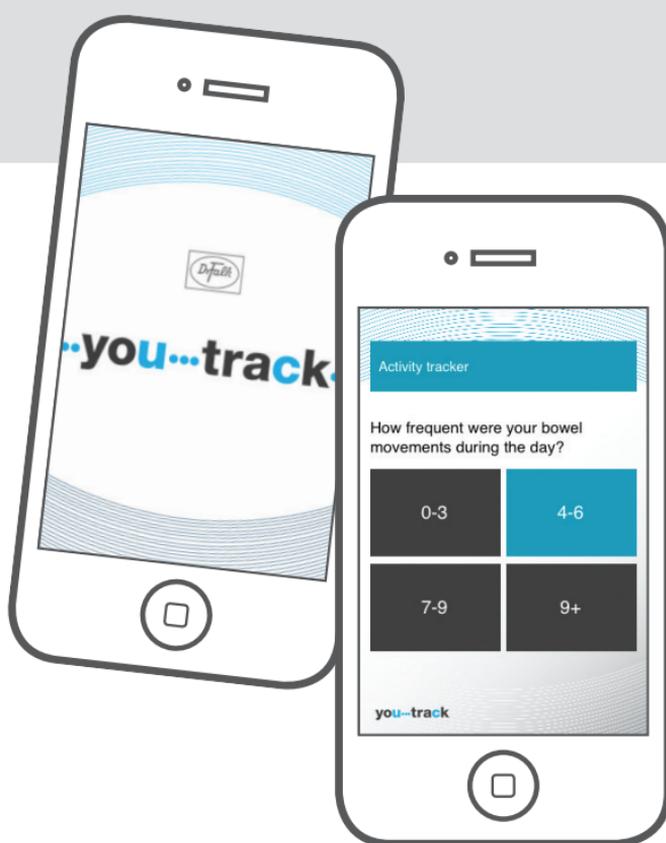
iTunes App Store

www.dr-falkhub.com/youtrack-iphone

Google Play Store

www.dr-falkhub.com/youtrack-android

When asked to sign in, enter DRFALK as the password



The IBS Network is the UK's national charity for IBS. Its mission is to support, inform and advise people with IBS and work with healthcare professionals to facilitate self-care. Among the range of services it offers are a telephone helpline and email response service staffed by professional IBS experts and its own comprehensive IBS Self Care Plan (www.theibsnetwork.org/the-self-care-plan).





For further information please contact

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