CROHN'S & COLITIS UK

FOOD YOUR GUIDE

FIGHTING INFLAMMATORY BOWEL DISEASE **TOGETHER**



INTRODUCTION

ABOUT THIS BOOKLET

Living with Crohn's or Colitis can mean making some changes to your diet. You may need to avoid certain foods to help your symptoms, or take extra care to make sure you're getting the right nutrients. There's no single diet that works for everyone – but this booklet will help you understand how food affects your condition, so you can make the choices that are right for you.

We write our publications together with people affected by Crohn's and Colitis, health professionals and other experts. The content is based on up-to-date, unbiased, evidence-based research. We don't recommend any particular products, and this information isn't meant to replace medical advice. Please speak to your GP or IBD team before making any changes to your diet.

Email publications@crohnsandcolitis.org.uk for a list of research used to inform this booklet, for details of conflicts of interest or if you have any feedback on our publications.

About Crohn's & Colitis UK

We are Crohn's & Colitis UK, a national charity fighting for improved lives today – and a world free from Crohn's and Colitis tomorrow. To improve diagnosis and treatment, and to fund research into a cure; to raise awareness and to give people hope, comfort and confidence to live freer, fuller lives. We're here for everyone affected by Crohn's and Colitis.

This publication is available for free thanks to the generosity of our supporters and members. Find out how you can join the fight against Crohn's and Colitis: call **01727 734465** or visit **www.crohnsandcolitis.org.uk**

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Food and IBD Edition 8

Last review: January 2019 Next planned review 2022

INTRODUCTION TO FOOD AND CROHN'S AND COLITIS

themselves.

absorbed into the bloodstream.

the body when you go to the toilet.

WHAT HAPPENS WHEN WE EAT FOOD?

The picture below shows the gastrointestinal tract, or gut - a long tube which starts at the mouth and ends

at the anus. It breaks food down to get nutrients, which give us energy and help our bodies grow and repair

When we eat, food passes down the oesophagus and into the stomach, where digestive juices break it down into a porridge-like consistency. This partly digested food moves through the small intestine where it is broken down even further. Nutrients from the food are

Liquid and undigested food are pushed into the colon. The colon absorbs the liquid and the leftover waste forms solid stools (faeces). These collect in the last part of the colon and the rectum until they pass out of

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Introduction to Food and Crohn's and Colitis

1 OESOPHAGUS

2 STOMACH

3 LIVER

4 GALL BLADDER

5 PANCREAS

6 SMALL INTESTINE (SMALL BOWEL)

7 ILEUM

8 LARGE INTESTINE (LARGE BOWEL)

9 RECTUM

10 ANUS

HOW DO CROHN'S AND COLITIS AFFECT **THE GUT**

Crohn's and Colitis can cause gut inflammation.

Crohn's can cause inflammation anywhere from the mouth to the anus. It is most common in the ileum - the last part of the small intestine - or in the colon. As well as affecting the lining of the bowel, the inflammation may go deeper into the bowel wall. If the small intestine is inflamed, it can be harder for the body to digest food and absorb nutrients.

In Colitis, the colon and rectum can become inflamed. Usually only the lining of the bowel is affected.

CAN FOOD CAUSE CROHN'S OR COLITIS?

We don't know what causes Crohn's and Colitis but we do know that a combination of the following factors are likely to play a part:

Genetics

Currently, there is no

clear evidence that any

particular food or food

additive directly

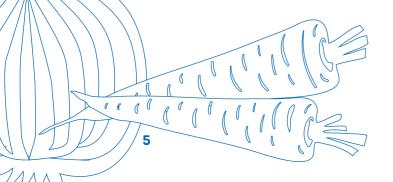
Colitis.

causes Crohn's and

- A problem with the immune system, where the body attacks its own cells
- Changes in the bacteria in the gut.

These, together with environmental factors, like food and stress, may trigger the conditions.

There isn't any clear evidence that specific foods cause Crohn's or Colitis. Some researchers think a diet low in fruit and vegetables may increase the risk of Crohn's and a low intake of vegetables may increase the risk of Colitis for some people. There's also some evidence that eating a lot of meat or table sugar, called sucrose, may increase the risk of Crohn's and Colitis. But there isn't enough evidence yet to say for certain whether food affects the risk.



CAN FOOD CURE CROHN'S OR COLITIS?

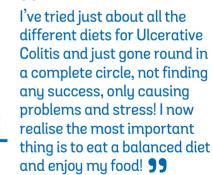
You may come across diets that claim to cure Crohn's or Colitis, but there isn't any evidence to prove that these work. A healthy, balanced diet will give you nutrients that are important to help you stay well.

Some people find that making small changes to their diet, for example avoiding spicy food, helps them cope with their symptoms. If cutting out a food makes no difference to your symptoms, make sure you start eating it again to avoid missing out on important nutrients.

There are times when your IBD team or dietitian may advise you to change your diet, for example, after surgery or if you have a narrowing in your small intestine, called a stricture. You can read more about this on page 26. Some people, such as children or people with Crohn's, may benefit from a liquid diet, called exclusive enteral nutrition - see page 30.

Always speak to your GP or a dietitian before making any big changes to your diet.

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Trevor, age 66, diagnosed with Ulcerative Colitis in 2010

Healthy eating with Crohn's or Colitis

WHAT IS A HEALTHY DIET?

Food gives us nutrients that provide energy and help our bodies grow and repair themselves. Eating a healthy, balanced diet helps us get all the nutrients our bodies need.

Your diet may vary, depending on how active your Crohn's or Colitis is. During a flare-up you may not be able to eat a balanced diet, but the Eatwell Guide shown below is a good starting point for when you're feeling well. and iron which is needed for red blood cells.



2000

Kcal

per day

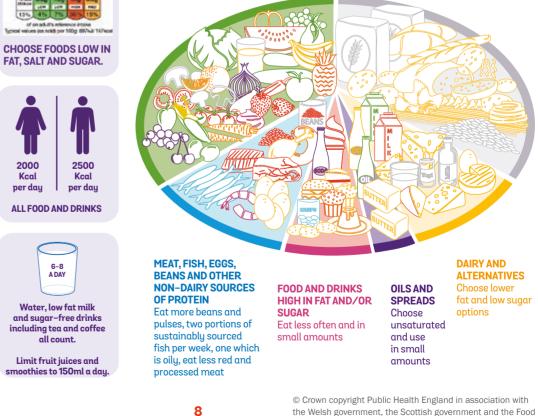
6-8 A DAY

all count.

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FRUIT AND VEGETABLES Eat at least five portions of fruit and vegetables a day

BREAD, RICE, POTATOES, PASTA AND **OTHER STARCHY FOODS** Choose wholegrain or high fibre versions with less added fat, salt and sugar



Standards Agency in Northern Ireland.

Fruit and vegetables

We should eat at least five portions of fruit and vegetables a day. These can be fresh, frozen, dried or canned. They're a good source of vitamins, minerals and fibre, but when you have Crohn's or Colitis you may find you need to limit your fibre. You can read more about fibre on page 12. Your dietitian can give you advice if you have problems eating fruit and vegetables, for example, if you have a stricture.

Starchy carbohydrates

These should make up just over a third of the food we eat. They're a good source of energy and nutrients. Starchy foods include breakfast cereals, pasta, bread, rice and potatoes. Some people with Crohn's or Colitis may find it hard to digest some types of carbohydrates, causing symptoms such as bloating and diarrhoea.

Protein

Protein is essential for growth and repair. Good sources include lean meat, poultry, fish, beans, peas and lentils.

Dairy

Dairy foods, and alternatives like fortified soya milk, are the best source of calcium in the diet. They also provide protein and some vitamins. They include milk, cheese, yoghurt and fromage frais. If you're lactose intolerant, you may need help from a dietitian to make sure you're getting enough calcium or vitamins in your diet. You can read more about this on page 14.

Oils and spreads

These are high in energy so we only need small amounts. Unsaturated fats are healthier than saturated fats and can be found in vegetable, rapeseed, olive and sunflower oils.

What about alcohol?

Some studies suggest that people with Colitis who regularly drink large amounts of alcohol may be more likely to have a flare-up. But we need more research to help us understand how alcohol affects people with Crohn's and Colitis.

The recommended alcohol limit for everyone is 14 units a week. That's the same as six pints of beer or ten small glasses of low-strength wine. It's better to spread your drinks across the week and have some alcohol-free days. The NHS website nhs.uk has lots of information about alcohol and how to cut down.



You can ask your GP, IBD nurse or IBD specialist if they can refer you to an NHS dietitian. If you can't get access to an NHS dietitian, your IBD team may be able to give you information about diet. Or you can find a private dietitian on the Freelance Dietitians Group website. All dietitians are registered with the Health and Care Professionals Council. Web addresses for these organisations are listed at the end of this booklet.

Be careful if you're reading information about diet on the internet. If you're not sure where to find trustworthy information, you could ask your GP or IBD team for recommendations. Or you can contact Crohn's & Colitis UK or the organisations listed at the end of this booklet.

WHICH NUTRIENTS ARE IMPORTANT IN CROHN'S AND COLITIS?

Vitamins and minerals

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Your body needs vitamins and minerals to work and stay healthy. Your Crohn's or Colitis may stop you absorbing enough vitamins and minerals from your food. Vitamins and minerals that you may not absorb properly include iron, vitamin B12, vitamin D and calcium.

Eating a healthy, balanced diet may help improve the level of vitamins and minerals in your body. If blood tests show you have low levels of vitamins and minerals, your doctor or specialist nurse may recommend you take supplements to restore your vitamin and mineral levels.

Speak to your doctor, specialist nurse or dietitian if you think you may have low levels of any of these nutrients.

HEALTHY EATING WITH CROHN'S AND COLITIS

Iron

Having low levels of iron is common in people with Crohn's or Colitis. Possible causes include a lack of iron in the diet, blood loss and problems absorbing iron from food. Lack of iron can lead to anaemia, where there are fewer red blood cells to carry oxygen around the body.

Common symptoms of anaemia include:

- feeling tired and lacking in energy
- feeling short of breath
- fast or irregular heartbeat
- pale skin.

If your diet is low in iron, your GP or dietitian may advise you to eat more iron-rich foods. These include green, leafy vegetables, cereals and bread with added iron (fortified), eggs, meat and pulses like peas, beans and lentils. It's harder for the body to absorb and use iron from non-meat foods, but having some vitamin C at the same meal can help. For example, you could try having a glass of orange juice with your fortified breakfast cereal. Drinking lots of tea or coffee can make it harder for your body to absorb iron from your food.

Vitamin B12

You usually get enough vitamin B12 from your diet. You can find it in foods like meat, fish, milk, cheese, eggs and some breakfast cereals with added vitamin B12. If you follow a vegan diet, eating only plant-based foods, you may not get enough of this vitamin from your diet and may need to take a supplement.

Vitamin B12 is absorbed in the last part of the small intestine called the terminal ileum. If you have surgery to remove the ileum, or if you have inflammation in that area, you may not be able to absorb vitamin B12. This can lead to low levels of vitamin B12 in the body, which can make you feel tired. Your GP may give you B12 injections every three months to prevent your levels of B12 dropping too low.

You can read more about surgery to remove the ileum on page 26.

Vitamin D

Your body makes vitamin D when your skin is exposed to sunlight. You can also get it from eating oily fish, egg yolks and foods with added vitamin D, like margarine and breakfast cereals.

People with Crohn's or Colitis are at risk of having low levels of vitamin D. If this isn't treated, you may be at risk of bone pain. Some recent research suggests that you may also be more likely to have flare-ups, but it's not clear whether low vitamin D levels can cause flareups or whether they are the result of flare-ups.

Calcium

Calcium is important for strong bones and teeth. You can get calcium from eating dairy foods, fish with bones – like sardines - and foods with added calcium, like breakfast cereal and bread.

If you're not able to eat dairy foods, you may not be getting enough calcium and your doctor may give you calcium supplements. There is information about lactose intolerance below.

You may need to take calcium and vitamin D supplements if you're having steroid treatment. Steroids can increase the risk of bone thinning over time. You can read more about this in our information sheet, Bones and IBD.

Fibre

Fibre is a type of carbohydrate found in plants, which is broken down in the colon. It helps keep the bowel working by softening and bulking up stools, making them easier to pass. Eating plenty of fibre can lower your risk of heart disease, stroke, type 2 diabetes and bowel cancer. It can also help treat and prevent constipation.

People with Crohn's or Colitis can be more sensitive to the effects of fibre in the gut. For some people, fibre can help to reduce symptoms during a flare-up and can help them stay in remission. For others, fibre can make their symptoms worse. Reducing your intake of fibre may help if your Crohn's or Colitis is remission but you still have symptoms such as abdominal pain, constipation and diarrhoea.

It's important to speak to a dietitian before cutting down on fibre so you don't miss out on the health benefits. For example, they may suggest that some people cut down on fibre for a short time during a flareup, before slowly adding it back in to the diet.

Fibre-rich foods include:

- starchy foods, such as porridge, oat bran, high-fibre breakfast cereals, potato with the skin on, wholemeal or wholegrain bread and pasta
- peas, beans and pulses, such as baked beans, lentils, chickpeas
- fruit and vegetables
- nuts and seeds.

Healthy adults should eat 30g of fibre each day. Children under 16 need between 15g and 25g, depending on their age. If you're trying to eat more fibre, increase the amount gradually to avoid bloating, wind and stomach cramps. Fibre attracts water so it's important to drink eight to ten cups of fluid a day to avoid getting dehydrated. Water, milk and herbal teas are healthier than sugary or fizzy drinks.

If you have Crohn's you may develop a stricture, which is a narrowing in the small intestine. If you've had strictures or blockage episodes, your dietitian or IBD team may recommend a low-fibre diet. This is to avoid fibre getting stuck in narrow parts of the bowel, which may increase the risk of a blockage. Low-fibre foods include:

- tinned fruit in juice with no skin, pith or seeds
- fruit juices one serving a day
- fleshy parts of vegetables with no skin or seeds
- sieved tomatoes and tomato sauces
- processed breakfast cereals like cornflakes and puffed rice
- white pasta, bread and rice.

There's more information about eating with a stricture on page 26.

Lactose intolerance

Lactose is a sugar found in dairy products, such as milk, cream and cheese. An enzyme in the gut, called lactase, breaks down lactose so it can be absorbed by the body. If you're lactose intolerant, your body doesn't produce enough lactase. This can cause:

- wind
- bloating
- nausea feeling sick
- stomach rumbling and pain
- diarrhoea loose and runny stools.

People with Crohn's or Colitis have the same risk of being lactose intolerant as the general population. But if you have Crohn's in your small bowel, you're more likely to be lactose intolerant. Some people with Crohn's or Colitis only get symptoms of lactose intolerance during a flare-up.

Following a low-lactose or lactose-free diet may help you manage your symptoms. You can buy lactose-free dairy products - try to choose ones that are fortified with calcium. Check the labels on pre-prepared foods as some have lactose added.

You may be able to digest small amounts of lactose, such as a little milk in your coffee. You can get an idea of how much lactose a product contains by checking the ingredients list. If lactose is listed towards the end of the list, it means there's a relatively small amount in the product.

Symptoms of lactose intolerance are similar to flareups so it's important to get advice from your IBD team before cutting out lactose. They can also check you're getting enough calcium and vitamins in your diet, which are important for bone health. If you're diagnosed with lactose intolerance, you should be tested again in the future because it's possible for your tolerance to lactose to change over time.

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HEALTHY EATING WITH CROHN'S AND COLITIS

Gluten

Some people with Crohn's or Colitis may also have a condition called coeliac disease. If you have coeliac disease, you're not able to digest a type of protein called gluten, which is found in wheat, barley and rye. Some of the symptoms of IBD and coeliac overlap, such as abdominal pain, bloating and diarrhoea.

If you don't have coeliac disease but get symptoms when you eat foods containing gluten, you may have a sensitivity to wheat, barley or rye. Some people with Crohn's or Colitis have symptoms of irritable bowel syndrome (IBS). The low FODMAP diet described on page 34 limits wheat, barley and rye and may help with IBS symptoms. It's important to get advice from a dietitian before starting this diet.

If you think you may have coeliac disease or a sensitivity to wheat, barley or rye, speak to your doctor or dietitian before changing your diet. It's important to get a diagnosis so you can get the right monitoring and treatment. You'll need to be eating gluten before you can be tested for coeliac disease. Also, if you cut down on foods containing gluten, you may not get enough fibre in your diet. Eating plans for people with Crohn's or Colitis



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I find keeping a diary of the food I eat and how my symptoms are affected really helpful. **99**

Melissa, age 44, diagnosed with Crohn's Disease in 2000



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KEEPING A FOOD DIARY

A food diary can be a handy tool to help you when you're speaking to your IBD team or dietitian about your diet. It may help show whether you're getting enough nutrients or if any foods may be contributing to your symptoms. It's important not to make any changes to your diet without speaking to your IBD team or dietitian first.

You could use a table like the one below. We've filled in the first row as an example of the details you might want to include. There is a larger version you can use at the end of this booklet.

Monday	Food	Symptoms	Time of day and how long the symptoms lasted
Breakfast	Wholemeal toast, jam, cup of tea with milk	Bloating, stomach cramps, wind	8am – two hours
Mid-morning snack			
Lunch			
Mid-afternoon snack			
Dinner			
Notes			

HOW CAN DIET HELP WITH MY SYMPTOMS?

17

Making changes to your diet may help you manage some common symptoms of Crohn's and Colitis, such as loose and runny stools, dehydration, bloating, wind, constipation, weight loss, tiredness, nausea and vomiting and pain. While changing your diet can help you manage your symptoms, it doesn't replace the medical treatment suggested by your IBD team.

Loose and runny stools

A common symptom of Crohn's and Colitis is loose and runny stools, called diarrhoea. For some people, their diet has no effect on their diarrhoea. Others find that avoiding certain foods helps. You could use the food diary on page 17 to help you find out which foods might be causing your symptoms. Foods which sometimes make diarrhoea worse include spicy or fatty foods, high fibre foods, foods containing gluten and dairy foods. Drinks containing caffeine, sweeteners or alcohol can also make diarrhoea worse.

Your IBD team or dietitian can advise you on how to manage your diarrhoea. They will want to make sure you're eating and drinking enough to get all the nutrients you need and to stay hydrated. In some cases, they may recommend medicines to help.

Our information sheet **Diarrhoea and Constipation** has more information about what causes diarrhoea and possible treatments

Dehydration

If your body doesn't have enough water, you can become dehydrated. This might happen if you don't drink enough fluids or if your body loses too much fluid, for example, if you have diarrhoea or vomiting.

- You may be more likely to get dehydrated if:
- you've had your colon removed
- you have an ileostomy, especially if it has a high output – see page 26.
- you have a short bowel
- your small bowel can't absorb bile salts properly see page 26.

Drinking water may not be enough to treat dehydration, because your body has also lost sugars and salts, which need replacing. You can buy rehydration solutions, like Dioralyte or Electrolade from pharmacies and supermarkets, but you may not be able to use

these if you have kidney problems. Some hospitals provide their own recipe for an electrolyte mixture that you can make at home. You could try adding salt to your food or eating a salty snack, like crisps, together with a drink of water or flat cola.

If you have a high-output ileostomy or a short bowel, drinking more water may increase your output and make you more dehydrated. Your IBD team can tell you if you should limit ordinary fluids and use an electrolyte mixture. If you have a short bowel or if your dehydration is severe, your GP or IBD team may give you medicine to slow the movements of your gut. It's important to take this medicine at the prescribed dose and times.

Our information sheet **Dehydration** has more information about avoiding and treating dehydration.

Bloating and wind

There are several possible causes of bloating and wind, such as constipation, a food intolerance or swallowing air when you eat or talk. There is no one solution that works for everyone so it can take time to find what works for you. Keeping a food diary can help you find out which foods are causing your symptoms - see page 17.

You could try:

- eating when you're calm and relaxed, taking notice of what you eat and how much
- chewing your food well to make it easier for your body to digest and absorb the nutrients
- eating smaller meals, if you normally have large portions
- avoiding eating late at night
- eating slowly, with your mouth closed
- avoiding fried, fatty or spicy food or food high in sugar.

You can read more in our information sheet **Bloating and Wind**.

EATING PLANS FOR PEOPLE WITH CROHN'S AND COLITIS

Constipation

If you have constipation, you won't pass stools as often as usual and you may feel you can't empty your bowel completely. You may need to strain on the toilet and your stools will be hard, lumpy or dry. You may also feel bloated and sick and not feel like eating much.

Possible causes of constipation include inflammation in the rectum, a low fibre diet, not drinking enough fluids and some medicines, such as opioid painkillers and iron supplements. If you have an ostomy, you may sometimes have constipation. Your stoma nurse or dietitian can help you choose foods to help manage the output of your stoma.

These ideas may help you avoid or treat constipation:

- using a foot stool so your knees are higher than your hips when you sit on the toilet
- getting into a routine by trying to open your bowels at the same time of day for about 10-15 minutes, avoiding straining
- drinking more fluids to soften stools and make them easier to pass
- eating more fibre, but not if you have a stricture (see page 26)
- keeping active.

Laxatives that add bulk to the stools, such as psyllium husk and ispaghula husk, can help but aren't suitable for everyone. Speak to your IBD team or GP before taking any medicines for constipation.

Our information sheet **Diarrhoea and Constipation** has more about constipation.

EATING PLANS FOR PEOPLE WITH CROHN'S AND COLITIS

Weight changes

Weight changes are common in people with Crohn's and Colitis. If you eat less during a flare-up, you may lose weight and you may not get enough nutrients. Tell your IBD team if you're losing weight without trying or if you don't feel like eating. You can help to keep your weight stable by:

- eating foods high in calories and protein
- snacking between meals
- having high-calorie drinks, like fruit milkshakes or liquid supplements that you can buy from the supermarket.

Taking steroids for Crohn's or Colitis can make you want to eat more and cause you to gain weight. Being overweight can cause health problems, such as type 2 diabetes and heart disease. Exercise that makes you breathe faster, like jogging or swimming, can help you lose weight. Eating a healthy, balanced diet can also help. But it's important not to cut back on what you eat during a flare-up so you don't miss out on important nutrients. It's better to wait until your Crohn's or Colitis is in remission before dieting.

Measuring your body mass index (BMI) and your waist can help you keep an eye on any weight changes. The NHS website has information on how to do this.

You may have mixed emotions about losing weight during a flare-up. If you're trying to lose weight, you may feel good about the weight loss. But you may feel worried about not eating a healthy diet. It's important to speak to your IBD team or dietitian about any weight changes to make sure you're getting enough nutrients. You can read more about difficult relationships with food on page 24.

Tiredness

Many people with Crohn's or Colitis experience extreme tiredness, known as fatigue. It's most common during flare-ups, but also affects some people during remission. You may be more likely to experience fatigue if you have anaemia or you have anxiety or depression. Some medicines can also cause fatigue. The food you eat may also play a part in your fatigue, especially if you aren't getting all the nutrients you need. See page 8 for information on getting a healthy, balanced diet and speak to your IBD team or dietitian if you need advice. If anaemia is causing your fatigue, your IBD team may recommend taking an iron supplement or eating more iron-rich foods. You can read more about this on page 11.

To help keep your energy levels up, you could try eating five or six smaller meals throughout the day. Eating a light snack or having a milky or herbal caffeine-free drink before bed can prevent you waking up hungry during the night.

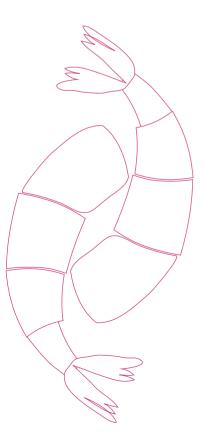
You can find out more about fatigue in our information sheet **Fatigue and IBD**.

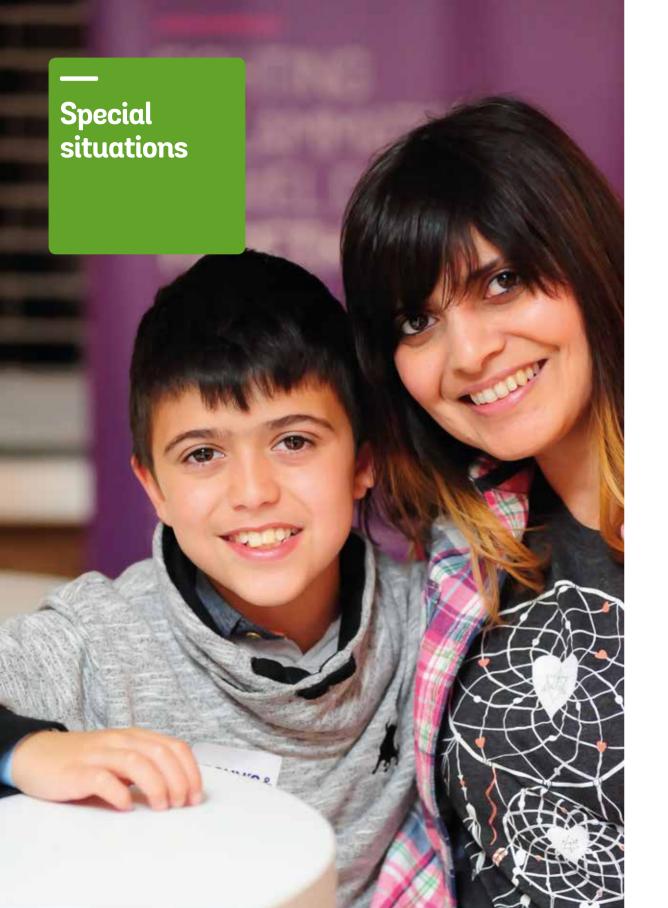
Nausea and vomiting

A possible symptom of Crohn's is feeling and being sick - nausea and vomiting. Some medicines for Crohn's and Colitis may also cause nausea and vomiting. If you're taking an immunosuppressant called methotrexate, your doctor may give you folic acid to reduce any nausea or vomiting.

Here are some things you may want to try to help:

- sipping a cold drink
- · drinking ginger or peppermint tea
- sucking ginger boiled sweets
- eating something dry, such as white crackers or toast
- eating foods containing ginger, like ginger biscuits
- eating food that doesn't need cooking or keeping away from where food is being cooked
- avoiding fried, greasy or strong-smelling food
- avoiding eating too much or too quickly
- avoiding drinking large amounts of fluid.





CHILDREN WITH CROHN'S OR COLITIS

Crohn's and Colitis can affect children's growth so it's important to diagnose and treat the disease as early as possible. Some children, particularly if they have Crohn's, may start puberty late. They may be shorter than their classmates, but they may catch up over time.

Children and teenagers need more nutrients than adults, to help them grow. This is especially important during puberty. If your child has Crohn's, their IBD team may recommend enteral nutrition. Unlike steroids, enteral nutrition helps with growth. There's more information about this treatment on page 30.

Your child's IBD team will check that they are absorbing enough nutrients from their food. Many children with Crohn's or Colitis don't absorb enough iron and this can affect their physical and mental development. The IBD team may recommend your child takes an iron supplement by mouth if they have mild or moderate anaemia. If their Crohn's or Colitis is active and they're not absorbing enough iron, they may need an iron infusion. There's more information about iron and anaemia on page 11. You can read more about Crohn's and Colitis in children in our booklet **IBD in children: A Parent's Guide.**

EATING DISORDERS

Eating disorders, like anorexia or bulimia, can occasionally cause similar symptoms to Crohn's and Colitis, such as abdominal pain, weight loss and vomiting. Because of this, some people find it difficult to get the right diagnosis. It's possible to have IBD and an eating disorder at the same time.

Some people may develop a difficult relationship with food as a result of their Crohn's or Colitis. The effect food has on your symptoms, together with needing to change your diet or take medicines like steroids that affect your weight, can change how you feel about eating. It's important to speak to your GP or IBD team if you feel this is happening to you. They can offer support and refer you to a counsellor.

EATING WHILE PREGNANT

If you're pregnant or trying to get pregnant, it's important to speak to your GP or IBD team to make sure you're getting all the nutrients you need.

A lack of vitamin B12 or folate (the natural form of folic acid) can cause fertility problems. You may have low levels of vitamin B12 if you have inflammation in the ileum or if you've had your ileum removed.

All women who are trying for a baby, whether or not they have Crohn's or Colitis, should start taking 400 micrograms of folic acid a day and continue for the first 12 weeks of pregnancy. This helps reduce the risk of spine problems in the baby. Some women with Crohn's in the small intestine may need higher doses of folic acid, for example if they've had surgery to remove part of the small intestine or if they're taking a medicine called sulphasalazine. Your GP or IBD team can advise you on the best dose to take.

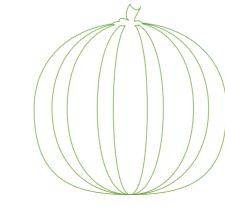
Your IBD team will give you information about how to get enough protein and energy from your diet. It's important to check whether it's safe to take supplements because some, such as vitamin A, can harm the baby. The Department of Health advises all pregnant women to think about taking a 10 micrograms vitamin D supplement every day during pregnancy and breastfeeding.

You can read more in our information sheets **Pregnancy and IBD** and **Reproductive Health and IBD**. The NHS website has information on diet and food safety during pregnancy.

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EATING WITH A STRICTURE

Crohn's can cause a narrowing in the small intestine, called a stricture. If you have a stricture, you may need to change what you eat to help prevent the intestine getting blocked.

You might be advised to avoid foods that could block the intestine, such as:

- skins, seeds or stalks of fruit and vegetables
- wholegrain foods
- nuts and seeds
- · skin or gristle on meat
- fish skin or bones.

If you have a severe stricture, you may only be able to eat very soft or liquid foods.

It's important to speak to a dietitian to make sure you're eating a healthy, balanced diet. In some cases, they may recommend a vitamin and mineral supplement.

EATING AFTER SURGERY

Surgery shouldn't make a big difference to what you eat. But there are some points to bear in mind, depending on the type of surgery you've had.

Surgery to remove the ileum

The ileum is the last part of the small intestine, before it joins the colon. Some people with Crohn's may have all or part of their ileum removed. The ileum absorbs vitamin B12 from your food. If you have had a large part of your ileum removed, you may not be absorbing enough vitamin B12 and you could develop anaemia. Your GP will check this with a yearly blood test and may give you regular injections of vitamin B12.

The ileum also absorbs bile salts. These salts are made in the liver and their job is to transport and absorb fat. If you've had part of your ileum removed, or if it's inflamed, it can't absorb all the bile salts and some spill over into the colon. This can irritate the

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SPECIAL SITUATIONS

colon and cause watery diarrhoea. This condition is called bile salt malabsorption. Your doctor may give you medicine to help reduce symptoms. You can read more in our information sheet, **Diarrhoea and Constipation.**

Short bowel syndrome

An adult's small intestine is usually between three and eight metres long. After surgery to remove part of the small intestine, the remaining section is called a short bowel if it's less than two metres long.

If you have a short bowel, there is less small intestine to absorb water and nutrients from your food. Your dietitian will give you information on what you should eat to keep at a healthy weight. Some people may not be able to absorb enough water or nutrients from this diet and may need to have nutritional supplements or take nutrients directly into the bloodstream. You can read more about this on page 30.

Stoma surgery

A stoma (ostomy) is an opening on the wall of the abdomen that diverts the contents of the bowel out of the body. A bag fits around the stoma to collect the contents.

There are two main types of stoma that people with IBD may have – an ileostomy and a colostomy. An ileostomy is formed from the small intestine and a colostomy is formed from the colon. Stomas may be temporary or permanent.

After surgery, you'll need to eat foods that are easy to digest, such as mashed potato and scrambled egg. Once you start to recover from the surgery, you can start to return to a normal diet. You may want to gradually reintroduce new foods over time.

If you have an ileostomy, it's important to stay hydrated. You may need to drink more than usual in hot weather or when you're doing a lot of physical activity. Stomach bugs, antibiotics and spicy food can increase the output from your stoma. You can replace the lost water and salts by drinking your usual amount and eating salty foods.

SPECIAL SITUATIONS

Or you can buy rehydration drinks from the pharmacy or supermarket.

If your stoma output increases and becomes looser, you may have a high output stoma. This can lead to dehydration. Your IBD team, stoma nurse or dietitian will advise you on how to manage the high output. For example, they may recommend taking anti-diarrhoea medicine, drinking oral rehydration solutions and limiting other fluids.

A small number of people with ileostomies find it difficult to digest high-fibre foods or small, hard foods like sweetcorn and nuts. If you have this problem, you could try removing the skin, pith and seeds from fruit and vegetables and chewing your food well. Overcooking your vegetables to make them softer, and mashing or pureeing them, may make them easier to digest. You can read more about fibre on page 12.

If you have a colostomy, you may sometimes get constipation or diarrhoea. You can read more about avoiding and treating these symptoms from page 18.

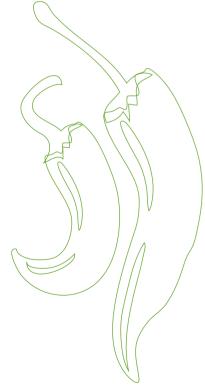
There's more information about eating when you have a stoma in our information sheet, **Living With a Stoma**.

Internal pouch surgery

People with Colitis may have surgery to remove their colon and rectum and to form an internal pouch, which is joined to the anus.

You should be able to eat a balanced, healthy diet but you may find that some foods cause problems, such as wind and needing to pass stools more often. Citrus fruits, spicy foods, nuts and seeds can irritate the area around the anus. There is also a risk you may not be absorbing enough vitamin B12 or iron. Your dietitian can help you eat a healthy diet and your doctor will check you're getting enough nutrients from your food.

See our information sheet on **Surgery For Ulcerative Colitis** for more details.



MAA



Nutritional treatment aims to improve or maintain the level of nutrients in your body. Two ways of doing this are exclusive enteral nutrition and parenteral nutrition.

EXCLUSIVE ENTERAL NUTRITION

Exclusive enteral nutrition is a liquid-only diet that can be helpful for people with Crohn's. It doesn't usually benefit people with Colitis.

Exclusive enteral nutrition is a liquid diet that gives you all the nutrients you need. You can't eat or drink anything else except for some clear fluids, which your dietitian will give you advice on. You may have exclusive enteral nutrition for 2-8 weeks before gradually starting to reintroduce foods and drink.

Exclusive enteral nutrition is commonly used as the first treatment for children with Crohn's. It can improve children's growth by providing easily digested nutrients and can avoid the need to use steroids. It's less commonly used in adults but it can help treat inflammation without causing some side effects that affect the whole body. It may also be helpful before surgery.

Some adults may benefit from partial enteral nutrition to help maintain remission after a period of exclusive enteral nutrition. This is made up of a liquid diet as well as solid food.

The liquids used in enteral nutrition are made up of nutrients that are easy to digest. There are three main types of liquid, which contain different sized nutrients. They are equally effective.

- Polymeric liquids contain whole proteins, carbohydrates and fats.
- Semi-elemental liquids contain broken-down proteins, sugars and fats.
- Elemental liquids contain simple nutrients, which are absorbed by the small intestine, leaving little undigested waste to be passed as stools.

WHAT IS NUTRITIONAL TREATMENT

You can take the liquids as a drink. You may be able to try different flavours or brands to see which you prefer. Some people, particularly young children, may prefer to have the liquid through a tube that goes into the nose and down to the stomach.

An advantage of exclusive enteral nutrition is that it doesn't cause some of the side effects linked to steroids, such as fluid build-up and changes in blood sugar levels. But some people get bloating, wind, diarrhoea, sickness and heartburn when they start exclusive enteral nutrition. These symptoms usually go away after 7-10 days and can be reduced by drinking slowly and taking peppermint capsules or tea.

REINTRODUCING YOUR USUAL DIET

Your IBD team and dietitian will give you information about returning to your usual diet after you've finished enteral nutrition. They may suggest reintroducing foods slowly so you can see if any foods affect your symptoms and to help you feel more confident about eating again. There are three ways of doing this:

- the elimination diet after excluding all foods, they are reintroduced one by one every few days, to see if they cause problems
- the Royal Free method this is similar to the elimination diet but foods are reintroduced more quickly, over a period of days rather than weeks
- the LOFFLEX (LOw Fibre, Fat Limited, EXclusion) diet - this excludes foods high in fat and fibre.

There isn't much evidence to show how well these diets work, or whether one works better than another. Your dietitian will explain the benefits and risks of all your options.

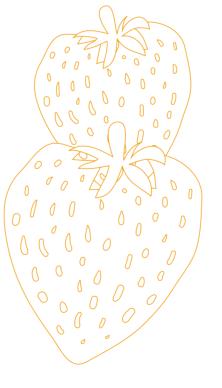
PARENTERAL NUTRITION

Parenteral nutrition delivers nutrients and calories straight into the bloodstream through a tube in a vein in the chest, arm or neck. It bypasses the gut and the usual process of eating and digestion. Parenteral nutrition is made up of the smallest building blocks of nutrients - glucose, amino-acids and fatty acids.

You would only have parenteral nutrition if you couldn't get enough nutrients through your bowel and digestive system. For example, if you have an obstruction, if your bowel is inflamed and not absorbing enough nutrients, if you have a short bowel which can't absorb enough nutrients or if your bowel isn't fully working for a short time after surgery.

You may have parenteral nutrition on its own, called total parenteral nutrition, or together with enteral nutrition.

You will have parenteral nutrition in hospital. Your IBD team or dietitian will arrange this for you andwill explain why you need it and how long for.





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I've found that you have to be very careful on the internet as there are many websites claiming to cure IBD through untested diets and supplements – which are not properly regulated and could be harmful and also expensive.

Zaineb, age 23, diagnosed with Crohn's Disease in 2010 Which diets or supplements can help?

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No diet has been proven to help people with Crohn's or Colitis, except for exclusive enteral nutrition in Crohn's. But some people may find the diets described here helpful. Everyone is different so what works for one person may not work for another.

If you decide to follow any diet to help with your Crohn's or Colitis, it's important to discuss it with your IBD team first. They may refer you to a dietitian, who will check that the diet is suitable for you and you're getting enough essential nutrients.

Two well known diets are the low FODMAP diet and the Specific Carbohydrate Diet.

LOW FODMAP DIET

FODMAP stands for Fermentable Oligosaccharides, Disaccharides, Monosaccharides and Polyols. These are types of carbohydrate, which some people find difficult to digest.

The carbohydrates attract water as they pass through the small bowel, sometimes causing diarrhoea. They then pass into the colon where they feed bacteria. This releases gas, leading to bloating and wind. Reducing FODMAPs in your diet and switching to low FODMAP foods may help with these symptoms.

There is evidence that the low FODMAP diet can help with symptoms such as abdominal pain, constipation and diarrhoea in people with inactive Crohn's or Colitis. But it also cuts out some types of food that may be helpful in managing the conditions.

The low FODMAP diet excludes a lot of foods, so it can be difficult to follow without help from a dietitian. You will need to exclude these foods from your diet for 4-8 weeks. Your dietitian will help you gradually reintroduce higher FODMAP foods over the next 8-12 weeks, to find which foods trigger your symptoms.

SPECIFIC CARBOHYDRATE DIET (SCD)

This is an extreme form of low carbohydrate diet that limits:

- sucrose table sugar
- · lactose in dairy products
- grains such as corn, wheat, barley, oats and rice
- starchy foods such as potatoes and parsnips.

The idea behind the SCD is that carbohydrates aren't digested properly in the small intestine so they pass into the colon, where bacteria feed on them. This leads to larger numbers of bacteria, which can cause symptoms like bloating and diarrhoea. But there's no scientific evidence to show that this happens in Crohn's or Colitis. The SCD aims to starve the bacteria of carbohydrates, which reduces the number of bacteria and stops them causing symptoms.

The diet can be difficult to stick to because it limits so many foods and because you need to follow it for at least a year. At the moment there isn't enough scientific evidence to show that the diet works.

Speak to a dietitian before starting the SCD to make sure you're able to follow the diet safely.

PROBIOTICS AND PREBIOTICS

Probiotics are a mixture of live 'gut-friendly' bacteria that you take by mouth. The aim is to increase the number of these bacteria in the colon and reduce inflammation. You can buy probiotic drinks, yoghurts, tablets or powders.

A probiotic called Vivomixx has been shown to be effective in treating pouchitis, and there is limited evidence that it can lead to remission in Colitis and prevent flare-ups. Vivomixx used to be sold under the name VSL#3, but another product called VSL#3 now exists, which may not work in the same way. Your IBD team is likely to suggest other proven treatments first. There isn't enough evidence to say whether probiotics help people with Crohn's and they're not recommended for treating active Crohn's.

Like all treatments, probiotics can cause side effects. Possible side effects include bloating, diarrhoea, bloody stools, abdominal pain, wind, sickness and headache. They affect everyone differently and you may not get any or all of these. In rare cases, they can cause infections in people with severe Crohn's or Colitis.

If you do decide to try a probiotic, you may need to take it for about four weeks before you notice any effect.

Prebiotics are carbohydrates that are poorly digested in the small intestine. They feed gut-friendly bacteria, which increases the number of these bacteria. There's not enough evidence that taking prebiotics helps people with Crohn's and Colitis and they may cause side effects, such as bloating, diarrhoea and wind.

OTHER DIETS

You may come across other diets that claim to help people with Crohn's and Colitis. Some people may find them helpful but there hasn't been enough research done into their effects to say whether they work. There is a risk of missing out on nutrients so it's important to speak to a dietitian before starting any new diet.

Anti-inflammatory diet (IBD-AID)

This is also known as the Mediterranean diet. Apart from one small study, there hasn't been any research testing the diet in people with Crohn's or Colitis. It's loosely based on the Specific Carbohydrate Diet, but doesn't limit as many foods. It includes probiotics and foods containing natural prebiotics to encourage gutfriendly bacteria and reduce inflammation.

Paleolithic diet

The Paleolithic, or Paleo, diet is based on the idea that the human digestive tract hasn't evolved to cope with foods produced by modern farming methods. The diet includes meat, fish, fruit, vegetables and nuts. It avoids processed food, dairy, grains and cereals. There hasn't been any research into the effect of the Paleo diet on people with Crohn's and Colitis. It limits lots of foods

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WHICH DIETS OR SUPPLEMENTS CAN HELP?

so there's a high risk of it causing a lack of vitamins, particularly vitamin D.

A more restrictive version of the Paleo diet is the autoimmune protocol (AIP). There's limited evidence to show it may help people with Crohn's or Colitis, but not enough to recommend it.

Omega-3 enriched diets

Omega-3 may reduce inflammation and can be found in fish oils. Western diets tend to be low in omega-3 but high in omega-6, which is in foods like corn, cereals and eggs. Researchers have looked at whether this may be linked to the increased rates of Crohn's and Colitis. But there is no evidence that omega-3 supplements help people with Crohn's and Colitis and they're not recommended.

Semi-vegetarian diet

This diet is based on the traditional Japanese diet and avoids typical Western foods. There isn't enough evidence to recommend this diet for people with Crohn's or Colitis. Only one small study has shown that a semivegetarian diet may be helpful in preventing a flare-up in Crohn's. The diet allowed a limited amount of meat and fish and avoided some processed foods and drinks. If you do want to try a semi-vegetarian diet, you will need to make sure you include all the essential food groups so you get all the nutrients you need, particularly protein.

Fasting

You may see stories that claim that not eating for short periods helps some people manage their Crohn's or Colitis. The idea is that fasting allows the bowel time to rest and heal. But there's no evidence that fasting has any effect on symptoms and you risk losing weight and missing out on important nutrients. This can make it harder for you to recover from your symptoms.

Fasting for religious reasons, such as during Ramadan, is safe for most people with Crohn's or Colitis. But in some cases, your IBD team may advise you against fasting if:

 you are losing a lot of fluid, for example, from a high-output stoma or ongoing diarrhoea

WHICH DIETS OR SUPPLEMENTS CAN HELP?

- you are low in nutrients or you find it hard to eat a large meal in a short time
- you have active disease with pain, fever, fatigue, vomiting or diarrhoea
- you take medicines by mouth during the day.

It's important to speak to your dietitian or IBD team if you're thinking about fasting for health or religious reasons.

HERBAL REMEDIES AND SUPPLEMENTS

There are lots of supplements that claim to treat Crohn's and Colitis. But there isn't enough evidence to recommend any herbal remedies or supplements. This is because it's difficult to know whether the supplement is directly affecting a person's Crohn's or Colitis or whether something else is causing a change in symptoms. Also, everyone is different so what helps one person may not help another.

Some people find that some herbal remedies, such as aloe vera or curcumin (found in turmeric), help them manage their symptoms when they use them together with their prescribed medicines. There have been reports of cannabidiol (CBD), an ingredient in cannabis, helping with symptoms like diarrhoea, pain and loss of appetite. But we don't know enough about how it works or how much is a safe amount to take. It isn't currently recommended and isn't available on prescription for people with Crohn's or Colitis.

There have been claims in the media about the benefits of kefir – a fermented milk drink that contains probiotics. But there isn't any medical evidence to show that it helps people with Crohn's or Colitis. You can read more about probiotics on page 35.

If you want to take herbal remedies, it's important to speak to your IBD team or dietitian first. Don't stop taking your prescribed medicine without talking to your IBD team, even if your symptoms improve.

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I think it is so important to remember that the relationship with food and IBD is so different for everyone!

Tom, age 28, diagnosed with Crohn's Disease in November 2011 66

I always keep a food diary. I note any symptoms I have and when I go to my consultants I can discuss what is causing the problem. Diet is one of things you can't change all at once – if you change everything at once you can't identify your trigger foods. Now, because of my food diary, I know what foods to avoid because they flare my symptoms.

Mesha, age 26. Diagnosed with Ulcerative Colitis in 2013

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	MID-AFTERNOON SNACK			
	ADDITIONAL NOTES			

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HOW WE CAN HELP YOU

We produce more than 50 information sheets, booklets and guides about all aspects of Crohn's and Colitis. These are available to download for free on our website: **www.crohnsandcolitis.org.uk**

Our helpline is a confidential service providing information and support to anyone affected by Crohn's Disease, Ulcerative Colitis and other forms of Inflammatory Bowel Disease (IBD).

Our team can:

- help you understand more about Crohn's and Colitis, diagnosis and treatment options
- provide information to help you to live well with your condition
- help you understand and access disability benefits
- be there to listen if you need someone to talk to
- put you in touch with a trained support volunteer who has a personal experience of Crohn's or Colitis
- Contact us by telephone on 0300 222 5700 or email helpline@crohnsandcolitis.org.uk



Association for Nutrition www.associationfornutrition.org

British Dietetic Association www.bda.uk.com

Colostomy Association www.colostomyassociation.org.uk

Food Standards Agency www.food.gov.uk

Freelance Dietitians Group www.freelancedietitians.org

Health and Care Professionals Council www.hcpc-uk.org.uk

IA – Ileostomy and Internal Pouch Support Group www.iasupport.org.uk



NHS www.nhs.uk

PINNT – Patients on Intravenous and Nasogastric Nutrition Therapy www.pinnt.com

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