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BRITISH SOCIETY OF GASTROENTEROLOGY

CROHN'S & COLITIS UK

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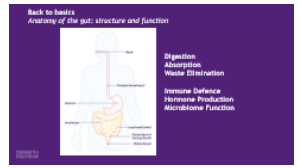
Content

Back to basics

- *Anatomy of the gut: structure and function*
- *What is IBD? How common is it?*
- *Symptoms of IBD reflect compromised gut muscle function and malabsorption*
- *IBD can lead to compromised gut function*



How does IBD develop?

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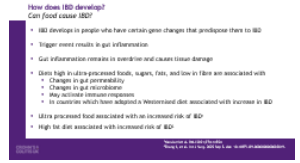
- *Can food reduce the risk of IBD?*
- *Can food trigger a flare-up of IBD?*
- *Can food treat IBD?*



Individual dietary preferences

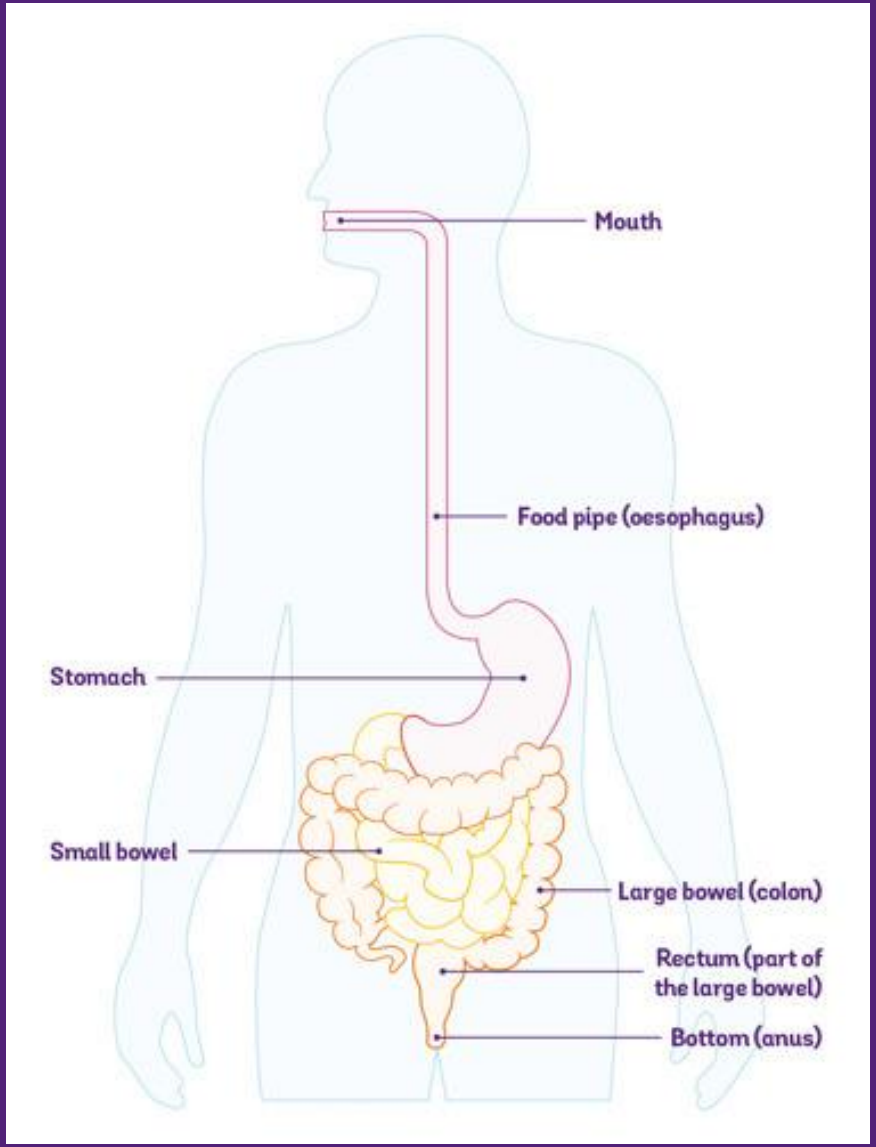
- *Vegetarians / vegans*
- *Fasting*

Making food choices

- *What is dietary fibre?*
- *Eat food closest to its natural form*
- *Food poverty and insecurity*

Back to basics

Anatomy of the gut: structure and function



Digestion
Absorption
Waste Elimination

Immune Defence
Hormone Production
Microbiome Function

Back to basics

What is IBD? How common is it?

CROHN'S & COLITIS UK

1 in 123

people in the UK are living with Inflammatory Bowel Disease

- Crohn's Disease
- Ulcerative Colitis
- Microscopic Colitis
- IBD-U (unclassified)

- Diarrhoea
- Constipation
- Fatigue
- Bloating and wind
- Bowel incontinence and urgency
- Blood in stool
- Issues with joints, skin and eyes
- Flare-ups and periods of remission

Back to basics

IBD can lead to compromised gut function

Gut Function	IBD	Impaired Gut Function
Digestion	Mouth ulcers, sore mouth, lack of enzymes to break down food, mixing food	Impaired breakdown of food
Absorption	Swollen, ulcerated, damaged lining	Lack of calories, nutrient deficiencies
Waste Elimination	Swollen ulcerated, damaged lining	Diarrhoea, urgency, bleeding

Back to basics

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Waste Elimination	Swollen ulcerated, damaged lining	Diarrhoea, urgency, bleeding
Hormonal Regulation	Loss of cells regulate hormones	Disrupted gut-brain signalling, appetite, and energy regulation
Immune Defense	Mucus barrier disruption, lack of cells that protect the gut	Prone to infections Immune system attacks gut tissue
Microbiome Balance	Disruption of microbiome	Imbalanced bacteria worsen inflammation
Additional Organs	Symptoms related to the different organs of the body	Eyes, skin, joints, muscle, blood vessels

How does IBD develop?
Can food cause IBD?

- IBD develops in people who have certain gene changes that predispose them to IBD
- Trigger event results in gut inflammation
- Gut inflammation remains in overdrive and causes tissue damage
- Diets high in ultra-processed foods, sugars, fats, and low in fibre are associated with
  - Changes in gut permeability
  - Changes in gut microbiome
  - May activate immune responses
  - In countries which have adopted a Westernised diet associated with increase in IBD
- Ultra processed food associated with an increased risk of IBD[1]
- High fat diet associated with increased risk of IBD[2]

[1]Narula N et al. BMJ 2021;374:n1554
[2]Zhang S, et al. Int J Surg. 2025 Sep 5. doi: 10.1097/JS9.0000000000003019.

How does IBD develop?
Can food reduce the risk of IBD?

- **Early life exposure to fish and vegetables in year 1 reduces future risk of IBD**[1]
- **The Mediterranean diet**[2]
  - **May reduce risk of CD**
    - is rich in fruits, vegetables, whole grains, legumes, nuts, olive oil, and fish
- **Cardioprotective diet score**[2]
  - **Cardioprotective diet was associated with a lower risk of IBD**
    - Fruits (fresh or dried), vegetables (cooked or raw), whole grains, fish (oily or non-oily), refined grains, processed meats, and unprocessed meats (poultry, mutton, beef, pork)
- **In a population-based study of food habits**[4]
  - **Plant-based diet is associated with a reduced risk of UC & CD**
    - Whole grains, cereal, oat, bread, whole fruit, dried fruit, and vegetables, nuts, seeds, olives, legumes, vegetable oils, tea and coffee
  - **Processed plant-based foods associated with increased CD**
    - Rice, pasta, bread, potatoes, sweetened cereal, fruit juices, chocolate, sweets, desserts

[1] Guo A, Gut 2024;73:590-600.
[2] Jantchou P, et al. Clin Gastroenterol Hepatol. 2019 Aug;17(9):1609-1616.
[3] Fu, Tian et al. DOI: 10.3390/nu14194058
[4] in Z et al. Mol Nutr Food Res. 2025 Oct;69(19):e70151. doi: 10.1002/mnfr.70151

How does IBD develop?

Can food trigger a flare-up of IBD?

- **This is a difficult to study – individual responses**

Category	Examples	Why it may trigger symptoms
High-fibre foods	Raw vegetables, nuts, seeds, corn, popcorn	Hard to digest; can irritate during a flare-up
Fatty/greasy foods	Fried food, fast food, creamy sauces	Can worsen diarrhoea and cramping
Lactose-containing foods	Milk, cheese, ice cream	Lactose intolerance is more common during active IBD
Spicy foods	Hot peppers, chili, curry	May irritate the gut lining
Caffeine and alcohol	Coffee, energy drinks, beer, wine	Can stimulate bowel movements or worsen dehydration
Artificial sweeteners	Sorbitol, mannitol (in sugar-free gums/candies)	May cause bloating, gas, or diarrhoea

How does IBD develop?
Can food treat IBD?

- **Some diets have been studied with people during flare-up/active disease**
  - Elemental diet[1,2]
  - Polymeric diet[1,2]
  - Food exclusion diets
    - CD TREAT[3]
    - Tasty and Healthy[4]
    - CD Exclusion Diet[5]
    - Mediterranean diet[6,7]
    - FODMAP diet[8]
    - Additives[9,10]

[1]Rigaud D, et al. Gut. 1991 Dec;32(12):1492-7.
[2]Verma S, et al. Am J Gastroenterol. 2000 Mar;95(3):735-9.
[3]Svolos V et al. Gastroenterology. 2019 Apr;156(5):1354-1367.e6.
[4]Frutkoff YA et al. Gastroenterology. 2025 Jun 17:S0016-5085(25)00896-0.
[5]Pasta A, et al. Eur J Clin Invest. 2025 Jun;55(6):e14389. doi: 10.1111/eci.14389.
[6]Jaber M, et al. Nutr Health. 2022 May 25:2601060221102281.
[7]Haskey N, et al. J Crohns Colitis. 2023 Nov 8;17(10):1569-1578.
[8]Cox SR, et al. Gastroenterology. 2020 Jan;158(1):176-188.e7.
[9]ADDapt doi.org/10.1186/ISRCTN14054186
[10]Fitzpatrick JA, et al. Aliment Pharmacol Ther. 2025 Apr;61(8):1276-1289.

Individual dietary preferences

Vegetarians/vegans

- **Dietary preferences can impact calorie and nutrient intake**
- **Iron, Vitamin D deficiencies are common in the general population**
- **Vitamin B12 deficiency animal sources - fortified bread, cereals, plant milks**
- **Annual Iron, Vitamin B12, folic acid and Vitamin D**

Individual dietary preferences
Fasting

- **Fasting can worsen existing calorie and nutrient deficiencies**
- **Stable in remission, good nutrition status**
- **Avoid in these situations**
  - Active disease (moderate to severe flare-up)
  - History of intestinal strictures or bowel obstructions
  - Underweight or rapid weight loss
  - Recent hospitalization or surgery
  - Children or adolescents with IBD (still growing)
  - High-dose steroid therapy
  - Severe anaemia or nutrient deficiencies

Making food choices

What is dietary fibre?

Dietary fibre is the part of **plant foods** (like fruits, vegetables, whole grains, legumes, nuts, and seeds) that your body is unable to fully **digest** or **absorb**.

Unlike **fats**, **proteins**, or **sugars**, **fibre** passes **mostly intact** through your stomach and intestines and plays **important roles** in keeping your digestive system **healthy**.

Digestion
Absorption
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Microbiome Function

Dhingra D,et al. J Food Sci Technol. 2012 Jun;49(3):255-66.

Making food choices

What is dietary fibre?

Feature	Soluble Fiber	Insoluble Fiber
Definition / behaviour	Dissolves (or swells) in water, forming a gel or viscous matrix in the gut	Does not dissolve in water; passes through the gut largely intact

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Key physiological roles / benefits	Slows gastric emptying; helps moderate post-prandial glucose absorption; binds bile acids / cholesterol (thus may lower LDL)	Adds bulk to stool; accelerates intestinal transit; prevents constipation; supports regular bowel movements

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Food sources / examples	Oats, barley, legumes (beans, lentils), apples (flesh), citrus fruits, psyllium husk, some seeds, carrots, peas	Whole wheat, wheat bran, nuts, seeds, skins/peels of fruits, whole grains, many vegetables (stems, outer parts)

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Constraints / cautions	In excess, may cause bloating, gas (from fermentation)	In insufficient water intake, may cause hard stools or obstruction risk in vulnerable individuals

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Making food choices

Eat food closest to its natural form

Minimally Processed vs. Processed vs. Ultra-Processed		
Minimally Processed	Processed	Ultra-Processed
Fresh or frozen fish	Canned fish	Breaded fish sticks
Fresh corn	Canned corn	Corn chips
Fresh carrot sticks	Carrot juice	Carrot cake (made with refined sugar)
Whole wheat	White flour	Cookies
Apple	Unsweetened applesauce	Applesauce with high fructose corn syrup
Tomato	Canned tomatoes	Ketchup

- Pick processed foods with less fat, sugar, and salt
- Read food labels
- Shop healthier staples
- Cook at home
- Make your snack
- Make healthier alternatives

Making food choices
Food poverty and insecurity

- People in food poverty often rely on cheaper, ultra-processed, high-fat, low-fibre foods
- May stop people from following dietary advice[1,2]
- Food insecurity is strongly linked to anxiety, depression, and chronic stress[3]
- These can worsen IBD symptoms directly (gut-brain axis) and indirectly (poor self-care, missed medications)[3]

- **Access to dietitians** (IBD Standards, 2025)
- **Screening for food poverty** (Garg et al., *Clin Gastroenterol Hepatol* 2021)
- **Identify and manage micronutrient deficiencies** (IBD Standards, 2025)
- **Providing supplements where necessary**
- **Budget-Friendly IBD Meal Plans (**Halmos et al., *J Hum Nutr Diet* (2019)

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[1]Colombel JF, et al. *Gastroenterology.* doi:10.1053/j.gastro.2021.02.038
[2]Parrish CR et al. (2023). *Nutrition in IBD: Barriers to Care. Journal of Parenteral and Enteral Nutrition.*
[3]Targownik LE, et al. (2020). Mental health concerns in IBD patients with food insecurity. Inflamm Bowel Dis.

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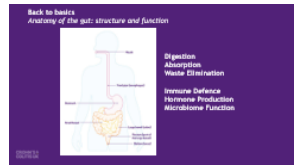

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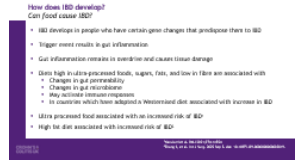

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