

Microbiota,
digestive health
and well-being:
Health benefits
linked to chicory
root fibre



Fibre isn't just for constipation – it's a lifesaving superfood

Although fibre may not be the sexiest thing in the world, a major study by the University of Otago in New Zealand and the University of Dundee say people should be eating a minimum of 25g of fibre per day as an 'adequate amount'. However, the health benefits for improving health is for a minimum of 30g.

Yet, **90% of adults aren't getting enough fibre***. On average, women consume about 17g and men 21g, a day.

The health benefits of fibre

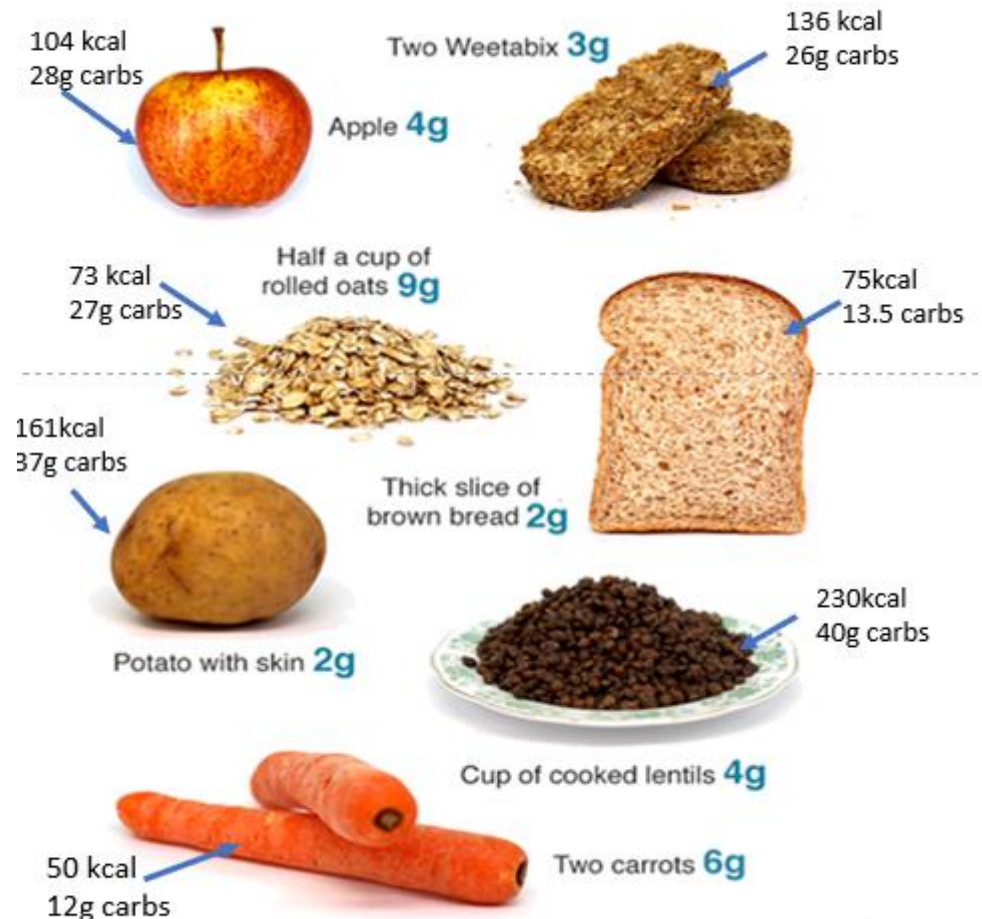
After analysing 185 studies and 58 clinical trials, the results were published in the [Lancet medical journal](#).

If you shifted 1,000 people from a low fibre diet (less than 15g to a high fibre one (25-29g), then it would prevent 13 deaths and six cases of heart disease.

It also showed lower levels of type-2 diabetes and bowel cancer as well as lower weight, blood pressure and cholesterol levels.

The more fibre people eat the better.

What does 30g of fibre look like?



Source: Auckland University of Technology



*Source: National Diet and Nutrition Survey, Public Health England and the Food Standards Agency, March 2018.

Digestive health: Facts & figures*

It's estimated that **around 1 in every 7 adults** and up to **1 in every 3 children** in the UK has constipation at any one time**

Mirror

One in four Brits have digestive issues – but won't get it checked out

One in five don't think anything can be done about their symptoms, while 17% fear doctors won't take them seriously if they book an appointment for digestive health

By Andrew Young
12:32, 6 Apr 2022



29% of people suffering with digestive symptoms have increased stress levels related to their discomfort, and 26% had trouble sleeping.

- A quarter of Brits (25%) have digestive issues such as constipation which cause them discomfort – but have simply “learned to live with it” rather than getting it checked out.
- 58% say their digestive health has a direct impact on their mental health
- A poll of 2,000 adults found nearly one in five (18%) don't consider the frequency of their bowel movements to be “normal”.
- 17% fear doctors won't take them seriously if they try and make an appointment to discuss their digestive symptoms

*One in four Brits have digestive issues – but won't get checked out, Fybogel, touring toilet 'Cubicle Confessional' One in four Brits have digestive issues - but won't get it checked out - [Wales Online](#)

**NHS inform, illnesses and conditions, Constipation - Illnesses & conditions | [NHS Inform Scotland](#)



Feeling the digestion is a good thing! A higher fibre intake leads to more activity in the gut, increased bowel movements and softer stools (but no diarrhea).

Digestive health is a key predictor of well-being

The consumption and following fermentation of chicory root fibre can give relief, with the mechanism behind this being evaluated and accepted by the European Food Safety Authority (EFSA) by a dossier submitted Beneo, which was positively evaluated and approved.*

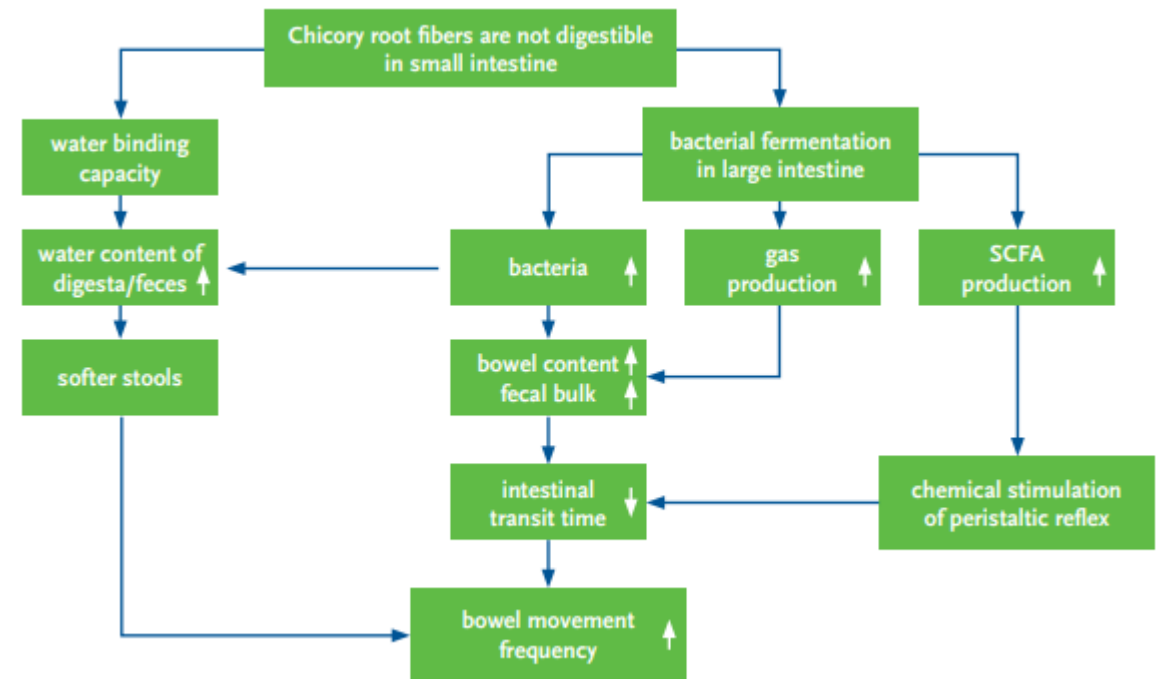
The prebiotic fermentation of chicory root fibres by the microbiota leads to breaking down products (SCFA) and metabolites, which are signals that promote the production of the neurotransmitter serotonin, a key regulator of the motility of the gastrointestinal tract.**This causes the gut peristaltic to 'move' and thus supports the normal gut function that leads to relief.

Stool softening occurs as some more water stays in the large intestine instead of being re-absorbed so that straining can be avoided.

The increase in bifidobacterial counts also leads to an increase in biomass, i.e. an organic and natural increase in faecal bulk and keeps the faeces softer.

Together this reduces hard stools and constipation and supports normal bowel function with a slight yet significant increase in stool frequency.

Mechanism that shows how chicory root fibres gently increase bowel regularity



Source: Beneo Chicory root fibers – supporting a healthy gut microbiota and beyond

*EFSA (2015) Scientific Opinion on the substantiation of a health claim related to “native chicory inulin” and maintenance of normal defecation by increasing stool frequency pursuant to Article 13.5 of Regulation (EC) No 1924/20061. EFSA Journal 13 (1) 3951. Adopted by GB NHC post-Brexit.

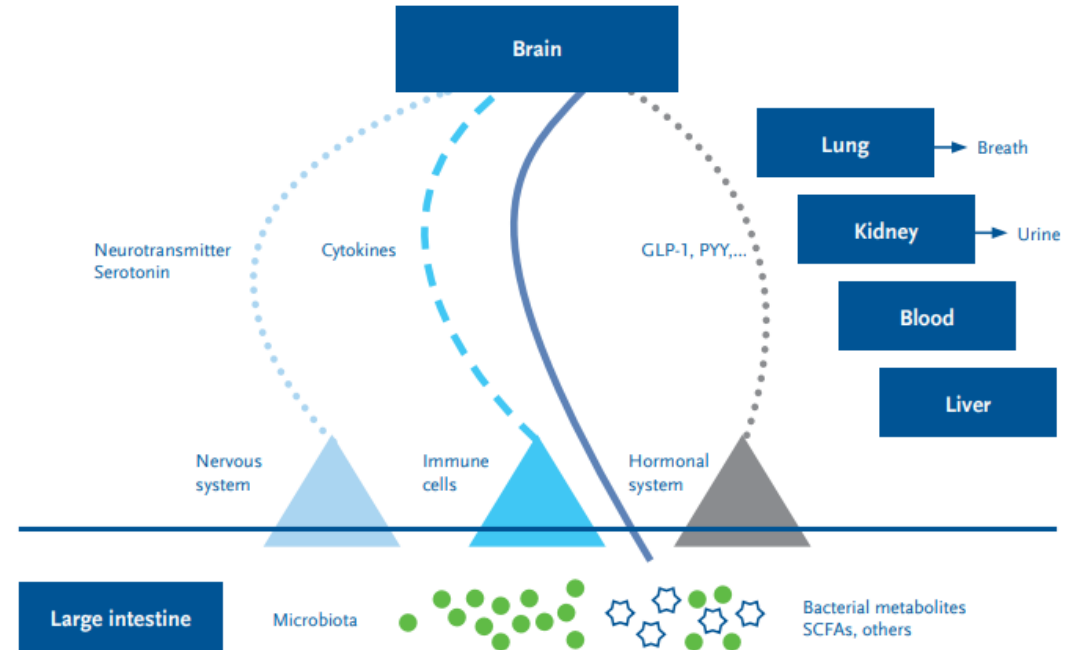
**Gibson GR, Roberfroid M (1995) Dietary modulation of the human colonic microbiota: Introducing the concept of prebiotics. J Nutr 125(6): 1401–1412. <https://www.ncbi.nlm.nih.gov/pubmed/7782892>

Link between prebiotics, gut bacteria and digestive well-being

- A new high-value study* showed that prebiotic chicory root fibres induced selective changes in the gut's microbiota composition, that can be directly linked to improved digestive wellness
- A direct link was found between the consumption of chicory root fibres decrease in *Bilophila* and improvement in quality of life in the subjects who were mildly constipated

*Vandeputte D, Falony G, Vieira-Silva S et al. (2017) Prebiotic inulin-type fructans induce specific changes in the human gut microbiota. Gut 66(11):1968–1974. <http://gut.bmj.com/content/gutjnl/66/11/1968.full.pdf>

The gut-brain axis, prebiotic fermentation & beyond!



Chicory root fibre increases good bacteria like Bifidobacteria, which are then broken down and lead to the production of SCFAs through saccharolytic fermentation.

Overall consumption of chicory root fibres and its complete prebiotic fermentation leads to a positive shift in microbiota composition providing many health benefits.

Research digestive health

- Scientific Opinion on the substantiation of a health claim related to “native chicory inulin” and maintenance of normal defecation by increasing stool frequency pursuant to Article 13.5 of Regulation (EC) No 1924/2006 (EFSA metadata on the Beneo Orafiti inulin used in ió fibrewater <https://www.efsa.europa.eu/en/efsajournal/pub/3951>)
- Chicory inulin and acute diverticulitis – a phase IV clinical study of FDA data. <https://www.ehealthme.com/ds/chicory-inulin/acute-diverticulitis/>
- Flexibility of gut microbiota in ageing individuals during dietary fibre long-chain inulin intake. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8138623/>
- Can inflammatory bowel disease be permanently treated with short-term interventions on the microbiome? <https://pubmed.ncbi.nlm.nih.gov/25665875/>
- Functional food science and gastrointestinal physiology and function. <https://pubmed.ncbi.nlm.nih.gov/9849357/>
- Inulin and oligofructose in chronic inflammatory bowel disease. <https://academic.oup.com/jn/article/137/11/2572S/4664508?login=true>

Research & articles on dietary fibre

- The health benefits of dietary fibre. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7589116/>
- Review of 185 prospective studies and 58 clinical trials regarding bodyweight, systolic blood pressure, total cholesterol, type 2 diabetes and colorectal cancer when comparing higher with lower intakes of dietary fibre. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31809-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31809-9/fulltext)
- Dietary fiber and prebiotics and the gastrointestinal microbiota. <https://pubmed.ncbi.nlm.nih.gov/28165863/>
- Dietary fiber and blood pressure control. <https://pubmed.ncbi.nlm.nih.gov/26923351/>
- Dietary fiber and body weight. <https://pubmed.ncbi.nlm.nih.gov/15797686/>
- Dietary fiber intake and endometrial cancer risk: A systematic review and meta-analysis. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6073518/>
- The health benefits of dietary fiber: beyond the usual suspects of type 2 diabetes, cardiovascular disease and colon cancer. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3399949/>
- Dietary fiber: Essential for a healthy diet. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>
- Benefits of dietary fiber may vary for different people: Here's why. <https://www.medicalnewstoday.com/articles/benefits-of-dietary-fiber-may-vary-for-different-people-heres-why>