Danone Nutricia Campus

Fibre: the challenge and opportunity for health

The fibre gap challenge

In the UK and in Europe, fibre intake is below recommendations. This is considered a public health concern due to the link between low fibre diets and chronic disease.

On average, intakes for adults in Europe range from:

Recommended daily intake: 25-35g

Table 1

Country Example of adult fibre intake from the UK and European countries[1,2]

Country	Fibre intake (AOAC) g/day	Percentage (%) deficit (based on EFSA recommendation of 25g/day)
UK	19.7	
Germany	24	
Netherlands	20	
Sweden	19.6	
Belgium	17.7	
Ireland	19.2	
Spain	17.9	
France	21	

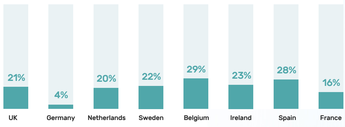


Table 2

Percentage (%) contribution to fibre intake in adults across some European countries[2]

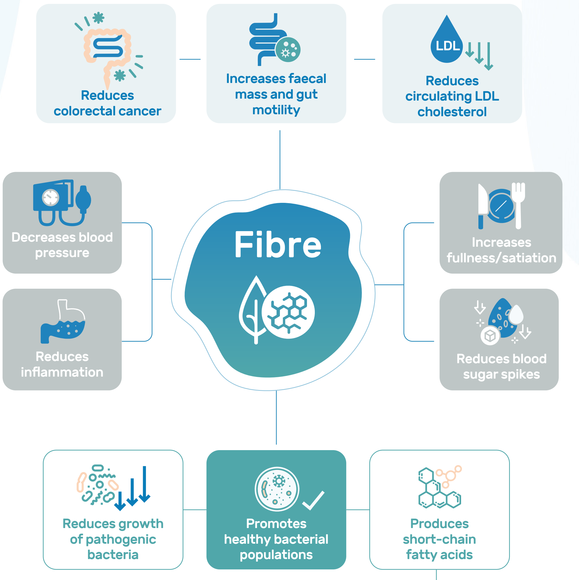
Country	Grains	Bread	Breakfast cereals	Potatoes	Vegetables	Legumes	Fruit
UK	38	19	6	12	20	-	9
Netherlands	48	-	-	10	14	1	11
Sweden	49	28	8	11	14	-	11
Belgium	33.2	-	-	18.1	14.4	0.8	15.1
Spain	33.5	-	-	6	19.9	12.1	22.6
France	34.2	20.8	1.7	6.5	18.6	3.2	16.8

Percentage contribution of fibre to the diet*[1]

1. PHE, FSA, MRC. Official Statistics: NDNS results from years 9 to 11 (2016 to 2017 and 2018 to 2019). Gov.UK. 11 December 2020. Available at: https://www.gov.uk/government/statistics/ndns-results-from-years-9-to-11-2016-to-2017-and-2018-to-2019 Accessed March 2024.
2. Stephen AM, Champ MM, Cloran SJ, et al. Dietary fibre in Europe: current state of knowledge on definitions, sources, recommendations, intakes and relationships to health. Nutr Res Rev. 2017;30(2):149-190. doi:10.1017/S0954422417000044

Health benefits of fibre in the diet

Research consistently links increased intakes of dietary fibre to beneficial health outcomes in humans.[1,2] Two key mechanisms have been proposed to underlie the health advantages of dietary fibre.



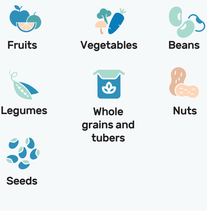
1. Dahl WJ, Stewart ML. Position of the Academy of Nutrition and Dietetics: Health Implications of Dietary Fiber. J Acad Nutr Diet. 2015;115(11):1861-1870. doi:10.1016/j.jand.2015.09.003
2. Cummings JH, Bingham SA, Heaton KW, Eastwood MA. Fecal weight, colon cancer risk, and dietary intake of nonstarch polysaccharides (dietary fiber). Gastroenterology. 1992;103(5):1783-1789. doi:10.1016/0016-5085(92)91435-7

Why plant-based eating is key to meeting fibre recommendations

Fibre is found naturally in plant foods, and diets rich in plants are therefore key to supporting increased fibre intakes at both an individual and population level.

What are plant-based diets made up of?

The term 'plant-based' can encompass omnivorous, pescatarian, vegetarian and vegan dietary patterns that are naturally high in plant foods such as beans, legumes, whole grains, fruits, vegetables, nuts and seeds.



Studies have found that diets characterised by high-quality plant-based foods and lower intakes of animal products may be beneficial for health, irrespective of established chronic disease risk factors and genetic predisposition[1]

It is not just about the fibre in plant-based dietary patterns. Additional beneficial components include a variety of vitamins, minerals and non-nutritive plant compounds such as antioxidants and bioactive compounds.

Plant-based diets are also shown to be advantageous in reducing the negative impact of our food system on greenhouse gas emissions, land use, water use, eutrophication and biodiversity.

Plant-based dietary patterns are supported by a variety of national and international dietary guidelines, including the UK's Eatwell Guide[2], the World Cancer Research Fund3, the Eat Lancet Planetary Health Diet[3], and the World Health Organisation[4]

1. Thompson AS, Tresserra-Rimbau A, Karavasiloglou N, et al. Association of Healthful Plant-based Diet Adherence With Risk of Mortality and Major Chronic Diseases Among Adults in the UK. JAMA Netw Open. 2023;6(3):e234714. Published 2023 Mar 1. doi:10.1001/jamanetworkopen.2023.4714
2. PHE, Guidance: The Eatwell Guide. Gov.UK. March 17, 2016. Available at: https://www.gov.uk/government/publications/the-eatwell-guide. Accessed March 2024
3. Willett W, Rockström J, Loken B, et al. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems [published correction appears in Lancet. 2019 Feb 9;393(10171):532] [published correction appears in Lancet. 2019 Jun 29;393(10190):2590]. Lancet. 2019;393(10170):447-492. doi:10.1016/S0140-6736(18)31788-4
4. WHO - Plant-based diets and their impact on health, sustainability and the environment: a review of the evidence: WHO European Office for the Prevention and Control of Noncommunicable Diseases. Copenhagen: WHO Regional Office for Europe; 2021. Licence: CC BY-NC-SA 3.0 IGO. Available at: https://iris.who.int/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf?sequence=1. Accessed March 2024.