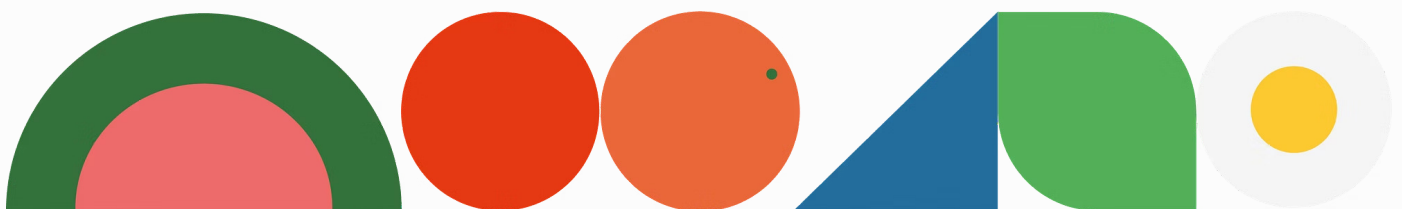


Dietary Fibre in 2026:

An Update on Barriers & Opportunities to Fill the UK Fibre Gap

Key findings



Dietary Fibre in 2026:

An Update on Barriers & Opportunities to Fill the UK Fibre Gap

Key findings

This document includes the key findings of the British Nutrition Foundation report [*Dietary Fibre in 2026: An Update on Barriers & Opportunities to Fill the UK Fibre Gap*](#). The full report, including references, is available at the link above. The report comprises the following:



Science & Health

Current evidence on fibre types, functions and health outcomes



Industry Action

Reformulation, product innovation and regulatory drivers for the food sector



Consumer Insights

Awareness, behaviours and barriers to higher fibre intake



Recommendations

Sector-specific actions to make higher-fibre choices the norm

This report is part of a workstream exploring how we change the UK's behaviour around consumption of fibre.

The British Nutrition Foundation is grateful to Arla, Baxter Storey, Bel, Kellanova, Mars, Pladis, Premier Foods and Tate & Lyle for supporting this programme of work.

The programme has been directed by the British Nutrition Foundation alone, which is committed to producing independent, evidence-based information, resources and training on food and nutrition. The funders had no input into this report.

The UK Fibre Gap: a Whole-System Challenge

Low fibre intakes are not driven by a single factor but reflect a combination of challenges. This report focuses on the real-world levers most relevant to industry, including changes to staple foods and everyday meal occasions, the role of product development and fortification, and the ways in which choice environments shape what consumers eat.

Why Does Low Fibre Intake Persist?

- Sensory and taste preferences
- Low awareness of recommendations
- Limited confidence in preparing fibre-rich foods
- Convenience and cost perceptions
- Concerns about digestive discomfort
- Lack of familiarity in high-fibre foods

The foods contributing most to fibre intake are not necessarily the foods highest in fibre. This creates opportunities to improve commonly consumed products, while also encouraging higher intakes of wholegrains, fruit, vegetables, beans, pulses, nuts and seeds.

Key Insight

If the UK population ate a diet aligned with the Eatwell Guide (without increasing total energy intake) this could increase average life expectancy and reduce new cases of type 2 diabetes over a 10-year period.

- ① Increased fibre consumption was estimated to account for almost **23%** of modelled health gains from an Eatwell Guide-aligned diet.

The report also underscores the importance of collaboration across the food system, from crop breeding and ingredient development to manufacturing, retail, food service, policy and education. Creating supportive food environments through availability, placement, pricing, menu architecture and simple communication cues will be important for shifting behaviour at scale.

Dietary Fibre and Health

Dietary fibre is found almost exclusively in plants and is defined as carbohydrates not digested or absorbed in the small intestine. Systematic reviews, prospective cohort studies, and randomised controlled trials have reported links between higher dietary fibre intake, particularly cereal fibres and wholegrains, and lower risk of cardiometabolic disease and colorectal cancer.



Cardiometabolic Health

Higher fibre intake is associated with lower risk of heart disease, stroke and type 2 diabetes. Increasing population fibre intakes by 7g per day is estimated to reduce risk across all these conditions.



Cancer Risk Reduction

Studies have linked higher intakes of cereal fibre and fruit and vegetable fibre with lower risk of several cancers, including colorectal cancer.



Gut Health

Fibre helps maintain a healthy gut microbiota, increase faecal bulk, reduce intestinal transit time, lower blood lipids and improve glycaemic control.

Fibre Types, Functions and Sources

Dietary fibre is not a single entity - it is a complex and diverse group of compounds. Foods usually contain more than one type of fibre, and fibre content can vary according to ripeness, plant variety, growing conditions, cooking and processing.

Fibre Type	Physiological Function	Example Food Sources
Viscous fibres (gums, pectins, psyllium, beta-glucans)	Gel forming; slows glucose absorption; traps bile acids, which can help to reduce cholesterol	Fruit, oats and legumes
Less fermentable fibres (cellulose, hemicellulose, lignin)	Stool bulking; speeds up transit time through gut	Grains, nuts, seeds and vegetables
Resistant starch	Fermented by gut bacteria	Bananas, potatoes, grains and pulses
Prebiotic fibres	Fermented by gut bacteria; may influence gastrointestinal microbiota	Onions, garlic, asparagus and bananas

UK Fibre Recommendations & Intake Patterns

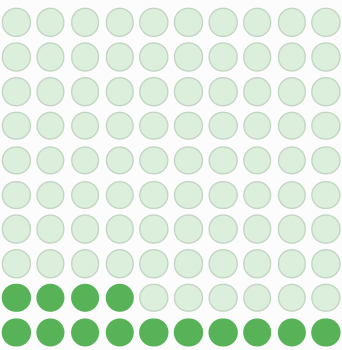
The recommended dietary intake for adults in the UK is 30g fibre per day. Detailed recommendations for other age groups are shown below. Current UK recommendations focus on total dietary fibre intake and do not provide any guidance on the intake of different fibre types.

UK Dietary Reference Values for Fibre

Age Group	g Fibre/day
2–5 years	15g
5–11 years	20g
11–16 years	25g
16+ years	30g

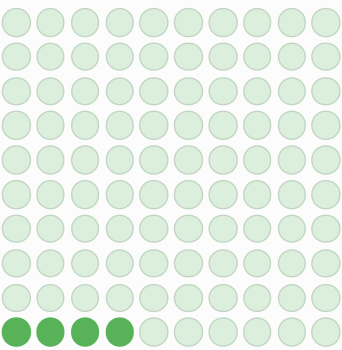
The Intake Gap

Average intakes from the National Diet and Nutrition Survey (NDNS, 2019–2023) remain far below recommendations:



14%

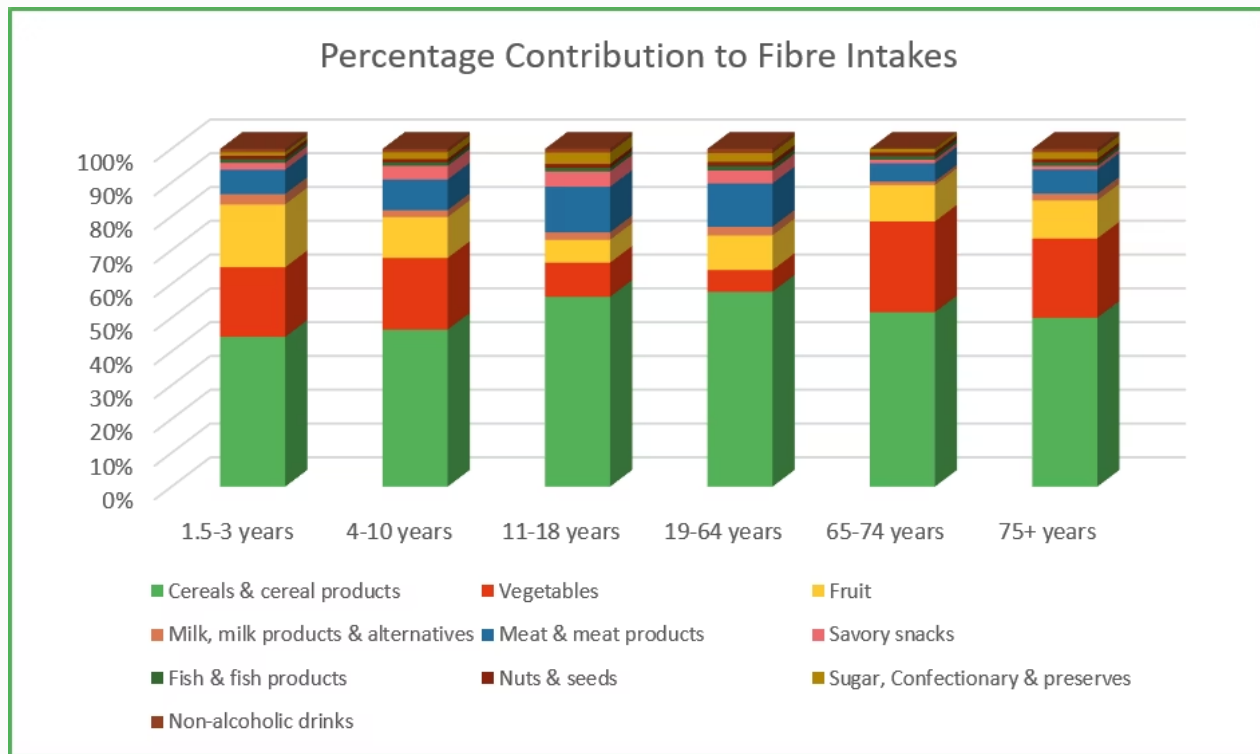
Children (4-10 years) meeting recommendations



4%

Adults and young people aged 11-18 years meeting recommendations

What Food Groups Contribute to Total Fibre Intake in the UK?



Cereal products are the largest contributors to fibre intake in the UK, followed by vegetables and fruit.

- i** Evidence suggests that each additional 7g per day of fibre intake is associated with a reduced risk of heart disease, stroke, type 2 diabetes and colorectal cancer, with greater benefits seen at higher total intakes.

The NDNS identified age-related differences in the foods that contribute most to dietary fibre intakes. Fibre contributors by age group are summarised below:

Young Children (1.5–3 years)

Fruit, breakfast cereals, sandwiches and vegetables are the largest contributors. White bread contributes more than wholemeal bread in this age group.

Adolescents (11–18 years)

Sandwiches, breakfast cereals and white bread are the largest contributors. Pizza, chips and savoury snacks contribute more than wholemeal bread.

Adults (19–64 years)

Sandwiches, vegetables, fruit, breakfast cereals and white bread are the main contributors. Wholemeal bread makes a lower contribution than white bread.

Older Adults (65+ years)

Breakfast cereals are the top contributor, with wholemeal bread as the second largest, a notable contrast to younger age groups.

These results from the NDNS indicate that foods that are relatively lower in fibre, such as white bread and chips, are making significant contributions to fibre intakes because they are widely consumed in large quantities. In contrast, higher fibre foods such as wholemeal bread, pulses, nuts and seeds make small contributions as, on average, they are consumed less frequently and/or in smaller amounts.

- ✓ This highlights the **potential for large impact from small dietary swaps** to higher-fibre alternatives of commonly consumed food items, particularly white bread products, pasta and snack foods.

Public interest has also grown around eating a wider variety of plant foods. The message to eat at least 30 plants per week is based partly on the American Gut Project, which found that people eating more than 30 different plant types per week had a more diverse gut microbiome. However, this study does not provide robust evidence for a specific threshold, although its findings are consistent with broader UK dietary guidance encouraging a variety of plant foods.

Consumer-Level Barriers to Higher Fibre Intake

Low fibre intake reflects a combination of sensory, practical, social, economic and behavioural factors. Understanding these barriers is essential for designing effective interventions.

Sensory Barriers

- Taste preferences for lower-fibre foods
- Texture concerns: dryness, hardness, bitterness

Knowledge Gaps

- Only 7% aware of 30g daily recommendation
- Limited understanding of health benefits beyond digestion

Habit & Convenience

- Reliance on convenience foods
- Eating outside the home
- Established food patterns

Skills & Confidence

- Limited confidence preparing wholegrains
- Unsure how to use beans and pulses

Economic Factors

- Cost perceptions of high-fibre foods
- Price of wholegrain vs refined alternatives

Communication & Confusion

- Complex health claims
- Difficulty identifying wholegrain foods on pack

Knowledge & Awareness Gaps

Consumers may have limited understanding of what fibre is, which foods provide it and why it matters beyond digestive health alone.

Awareness of the adult recommendation of 30g per day is very low:

A survey showed that only **7%** of adults were aware of the 30g daily fibre recommendation, despite it being a long-standing public health target.

Confusion can also arise around wholegrain and refined grain foods, naturally occurring fibre and added fibre, and nutrition or health claims on packaging.

Practical & Behavioural Barriers

Food habits and eating patterns also influence fibre intake. Eating outside the home and reliance on convenience foods have been associated with lower dietary quality and reduced fibre intake.

Food preparation skills can influence fibre intake. Some consumers may lack confidence preparing wholegrains, beans or pulses, or may be unsure how to include them in familiar meals. Research suggests that repeated exposure, practical guidance, recipes and skills-based support may help improve acceptance and use of higher-fibre foods.

Why Fibre Matters to the Food Industry

Dietary fibre is important to the UK food industry because it is considered within nutrition policy, product reformulation and labelling regulation. Several converging drivers make fibre increasingly relevant for manufacturers, retailers and food service operators.

Regulatory and policy drivers

In the UK, the Nutrient Profile Model (NPM 2004/5) is currently used to determine whether food and drink products are classified as high in fat, salt or sugar (HFSS). The NPM 2004/5 generates a score based on points for negative nutrients e.g. energy, saturated fat, total sugar and sodium compared to points for positive attributes such as fruit, vegetables, nuts, protein and fibre. An updated version of the NPM (NPM 2018) is currently in consultation, which would increase the weighting of fibre alongside changes to free sugars and energy.

 These policy frameworks mean that fibre content may influence how some products are classified and marketed. However, the overall nutritional profile remains relevant, and increasing fibre alone does not determine whether a product is considered healthier under nutrient profiling models.

Gut health, functional foods and consumer trends

Rising interest in gut health and functional foods has brought greater attention to dietary fibre, both as an essential nutrient and as a functional ingredient in food products.

Prebiotic fibres have been studied for their potential to influence the gastrointestinal microbiota. However, there is currently no universally agreed definition of a “healthy” gut microbiota or an ideal microbial composition.

Dietary fibre can be incorporated into a wide range of commonly consumed foods, including breads and bakery products, breakfast cereals, snacks, yogurts and other dairy products, beverages, pasta, rice-based products and mixed meals. Different fibre types also provide distinct technical and physiological benefits. For example, inulin-type fructans, fructo-oligosaccharides, galacto-oligosaccharides and resistant starch are fermentable by gut bacteria and viscous fibres such as beta-glucans and pectins can also support improved glycaemic control and cholesterol reduction.

When incorporating whole or isolated fibres into products—either in new product development or reformulation—their technical functionality and impact on product quality must be carefully considered.

Why Fibre Matters to the Food Industry

Consumer demand, sustainability and social media context

Consumer research suggests that some shoppers respond to cues linked to wholegrain, less processed and natural foods, and that wholegrains are often recognised as a source of dietary fibre. However, consumer uptake of wholegrain or higher-fibre foods can be limited by taste and texture preferences, uncertainty about how to identify wholegrain options, perceived cost and family preferences.

- ① Plant-rich diets that focus on foods like whole grains, fruits, vegetables, nuts, and beans, are often discussed in relation to their benefits to both health and the environment.

Recent social media trends, such as 'fibre-maxxing' have increased public visibility of fibre. Some online content frames fibre intake in relation to weight management, gut health or self-improvement, and includes high-fibre versions of familiar foods.

Use of nutrition and health claims

There are a number of nutrition and health claims on fibre that are authorised for use in the UK.

- ① For fibre, a product can be described as a source of fibre if it contains at least 3g of fibre per 100g, or 1.5g of fibre per 100kcal. A product can be described as high in fibre if it contains at least 6g of fibre per 100g, or 3g of fibre per 100kcal.

Health claims differ from nutrition claims because they link a food, nutrient or substance to a health effect. For fibre-related health claims, the authorised claims apply to specific fibre types rather than to dietary fibre as a broad category. For example: *wheat bran fibre contributes to increasing faecal bulk*.

Why Fibre Matters to the Food Industry

Examples of authorised fibre-related health claim areas in the UK and EU

Fibre or fibre-containing food	Authorised claim area
Barley grain fibre, oat grain fibre, rye fibre, sugar beet fibre and wheat bran fibre	Faecal bulk, intestinal transit or normal bowel function, depending on fibre type and conditions of use
Oat and barley beta-glucans	Reduction or maintenance of blood cholesterol, where conditions of use are met
Pectins, resistant starch, non-digestible carbohydrates and arabinoxylan from wheat endosperm	Reduction of blood glucose rise after a meal, where conditions of use are met
Dried plums or prunes	Normal bowel function, where conditions of use are met

This table summarises claim areas only and should not be used as a substitute for regulatory guidance and conditions of use set by the framework of Regulation (EC) No. 1924/2006.

Opportunities for Industry Action

Product Innovation & Reformulation

Wholegrain & Fortification Routes

Frequently consumed staple foods such as bread, breakfast cereals, pasta, noodles and rice, offer opportunities to improve fibre content or increase availability of wholegrain versions. A 2023 survey of major UK food retailers found that just **16% of common carbohydrate foods were wholegrain**, with wholegrain foods costing more on average than their white counterparts.

Fortification involves adding fibre-rich fractions to foods or drinks. Research on faba bean-enriched white bread reported a **57% increase in fibre** when white bread was enriched with 25% faba flour, with high levels of consumer acceptance.

Addition of fibre to pasta using sources such as spent grain, pectin, cellulose, oat bran, whole barley flour and resistant starch has also been explored. Studies report that **15% fibre enrichment can provide between 2.5g and 9g fibre per 100g**, depending on the fibre type used.

Biofortification & Crop-Based Approaches

Biofortification, that is, increasing endogenous fibre within crops through selection and breeding, has been discussed as a longer-term approach alongside reformulation.

- ✓ A UK modelling study estimated that increasing the fibre content of white flour by **50%** and wholegrain by **20%** could increase total fibre intake by **1–1.4g per day** in adults.

Sensory Considerations

The effect of fibre fortification on sensory acceptance depends on product type, fibre source and enrichment level. Addition of soluble fibres such as pectin, beta-glucan, acacia fibre and resistant starch have been reported to have acceptable or minimal sensory impacts in some product formats. However, enriched pasta can have lower sensory scores due to changes in firmness, colour, taste or smell.

Opportunities for Industry Action

Health-by-Stealth Approaches

Health-by-stealth refers to gradual reformulation of commonly consumed foods to change their nutrient profile while maintaining consumer acceptability. Lower-fibre staple foods such as white bread, some breakfast cereals, pasta, rice-based foods and other grain-based products are widely consumed across the population. Reformulating staple foods may therefore help increase overall fibre intake at population level, provided products remain acceptable and affordable.

Health-by-stealth approaches are outlined below:

01

Gradual Grain Substitution

Incrementally increase wholegrain content or use higher-fibre white flour in familiar products

02

Pulse & Vegetable Integration

Incorporate pulse or vegetable ingredients into staple foods while maintaining taste and texture

03

Sensory Testing & Consumer Insight

Support reformulation with rigorous sensory testing and consumer research before and after launch

04

Monitor & Iterate

Track sales, acceptability and nutritional impact; adjust formulations based on real-world data

- ① Increasing fibre should also be considered alongside overall nutritional quality, including energy, saturated fat, salt and sugars.

Added or isolated fibres may not always have the same physiological effects as fibre naturally present within whole foods, where fibre forms part of a wider food matrix.

Therefore, reformulation should sit alongside efforts to increase consumption of naturally fibre-rich foods such as wholegrains, beans, pulses, vegetables, fruit, nuts and seeds.

Real-World Examples

Public & Academic Examples

Danish Whole Grain Partnership

A public-private partnership established in 2008 involving government, health organisations, researchers and food system stakeholders. Used gradual reformulation, product standards, a wholegrain logo and mainstream product availability. Reported outcomes include increases in average wholegrain intake from **36g to over 80g per day**.

Healthy Soil, Healthy Food, Healthy People (H3)

Tested novel high-fibre bread products in UK primary school breakfast clubs alongside fibre-rich cereals and fruit. Higher-fibre breads were accepted by many children and increased the average fibre content of breakfasts in the trial setting.

Raising the Pulse Project

Added pulse flours to familiar staple foods such as white bread to increase fibre and protein content. Interventions in shops and food service outlets on a university campus increased availability, visibility and acceptability of pulse-containing foods.

Eat Them to Defeat Them / Bang in Some Beans

UK-wide behaviour change campaigns designed to increase children's vegetable and bean intake. The Bang in Some Beans campaign aims to increase bean consumption by 2028 and make beans, pulses and legumes more visible, accessible and appealing in everyday meals.

Real-World Examples

Sector Spotlights



Bakery Products

White bread contributes 5–6% of daily fibre intake across age groups. Modelling estimates that increasing fibre in white flour by 50% and wholegrain by 20% could increase adult intakes by 1–1.4g/day. Partial replacement with pulse flour or insoluble fibres may increase fibre with minimal sensory impact.



Convenience Foods

Products vary widely in their nutritional profile. Potential approaches include increasing fibre-rich ingredients within familiar formats through greater use of pulses, wholegrains or vegetable-derived fibres. A 12-week German intervention reported fibre intake to increase from 22.5g to 36.0g/day with well-accepted fibre-enriched convenience foods.



Snacks

Snacking is common across age groups and can contribute substantially to daily energy intake. Fruit snacks, extruded pulse snacks and extruded breakfast cereals have been successfully enriched with fibres such as inulin, carrot fibre or pea fibre to meet a high fibre nutrition claim.

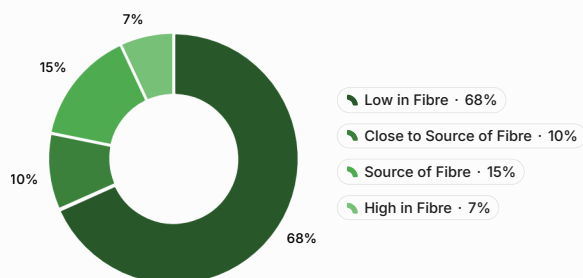


Breakfast Cereals

Cereals and cereal products contribute 43–50% of average daily fibre intakes. The breakfast cereal category has a clear track record of reformulation achieving voluntary sugar reductions of 14.9% (sugar per 100g, change in sales-weighted average) demonstrating that iterative changes at scale is possible without requiring consumer behaviour change. The opportunity is to align fibre and sugar objectives together, particularly for family and child-oriented ranges

Fibre in the UK Out-of-Home Sector

This section summarises the results of an audit of fibre availability in the UK out-of-home (OOH) sector carried out by the British Nutrition Foundation, drawing on quantitative analysis of **3,799 items from 30 outlets**. The levels of fibre in the items included are shown in the chart below:



The findings highlight that while higher fibre options do exist, the majority of foods and drinks available in the OOH sector are low in fibre.

Key Findings by Outlet Type

- Supermarket "food to go" meal deals performed comparatively well, providing the highest fibre per 100g and per 100kcal on average
- Quick service, casual dining and takeaway outlets offered the highest fibre per portion (mean 5.6g), likely influenced by larger portion sizes
- Only **27% of main meals** in full-service restaurants provided at least 9.3g fibre per portion, the benchmark aligned with healthier catering guidance

Structural Gaps Identified

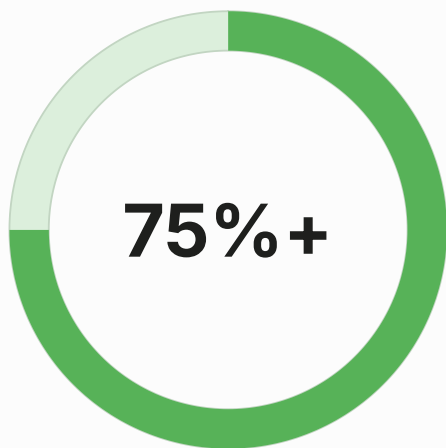
- Limited availability of higher-fibre starchy options: only **13% of outlets** offered wholewheat pasta and **32%** offered wholemeal bread
- Fresh fruit and pulses were not consistently available, especially on children's menus
- Vegetable-based sides were more common but not universally available
- Higher-fibre alternatives such as wholegrain substitutions or pulse-based dishes were often absent, optional or less visible

i Given that eating out constitutes a growing proportion of overall dietary intake, the OOH sector represents a **key lever for public health improvement**. Industry-led reformulation, menu innovation and increased provision of fibre-rich options could make a meaningful contribution to improving dietary quality at population level.

Consumer Insights on Fibre: Awareness, Behaviours & Barriers

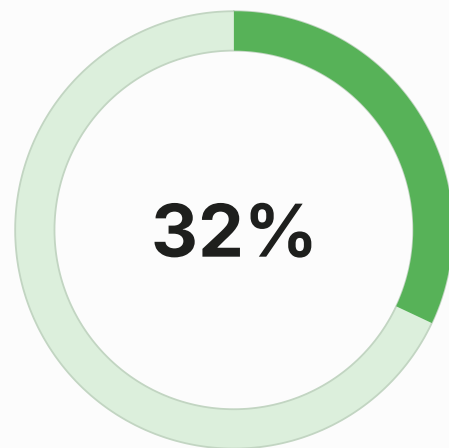
A consumer survey was carried out online by YouGov from 9–10 April 2026. The total sample size was 2,088 adults, weighted and representative of all UK adults aged 18 and over.

The Awareness Gap



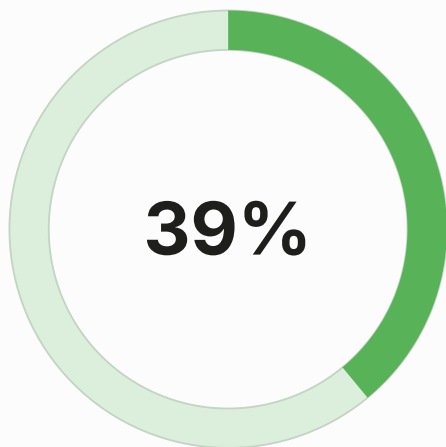
Associate fibre with digestive health

75% of men and 86% of women link fibre to supporting digestive health



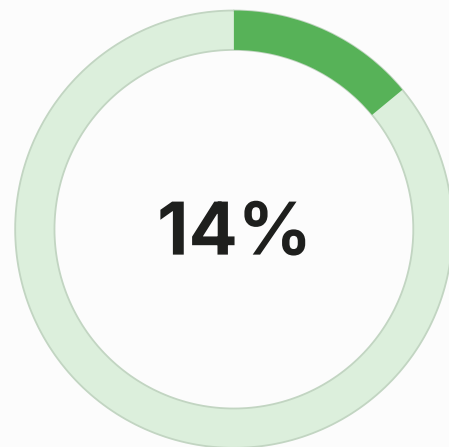
Link fibre to type 2 diabetes risk

Only 32% recognise fibre's role in reducing type 2 diabetes risk



Rarely or never consider fibre

39% rarely or never consider fibre intake in their daily food choices

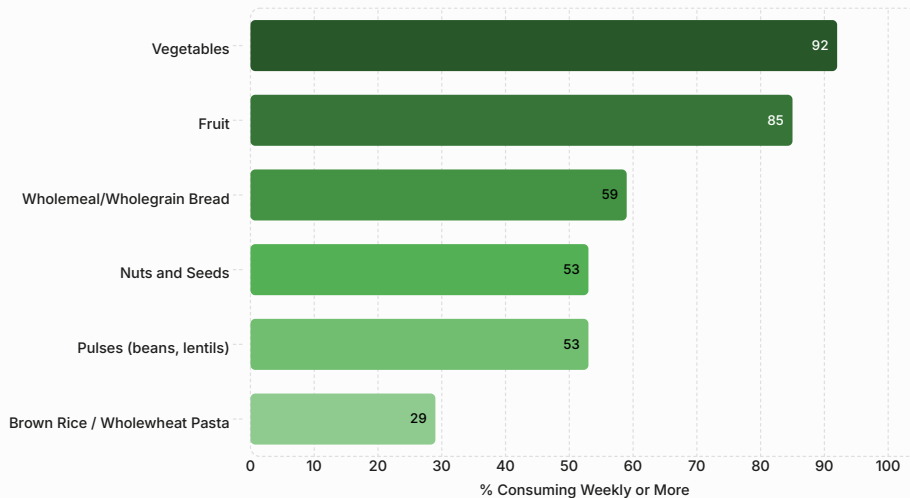


Check fibre on labels

Fibre is among the least checked nutrients, vs sugar (39%), calories (33%) and fat (32%)

Dietary Patterns: The Intent–Intake Gap

Food



Notably, 28% report that they never consume brown rice or wholewheat pasta, and 12% never eat pulses. Despite this, there is some motivation for change: 31% say they want to eat more fibre, alongside 45% wanting to increase fruit and vegetable intake and 32% wanting to eat more "gut friendly" foods.

Barriers & Enablers

Top Barriers Cited

- **16%** — Preference for the taste of lower-fibre foods
- **12%** — Cost
- **12%** — Uncertainty about which foods are high in fibre
- **11%** — Fibre not being a priority
- **10%** — Household preferences
- **8%** — Preparation time
- **7%** — Gut concerns

Practical Enablers for Change

- **25%** — Affordability
- **25%** — Easy recipes and meal ideas
- **22%** — Clearer fibre labelling on pack
- **19%** — Better in-store signposting
- **18%** — More options in foodservice

✓ **50%** say they would be more likely to purchase a familiar product with added fibre if it tasted the same. Taste-neutral reformulation is a powerful lever.

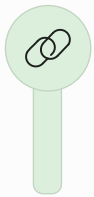
Key Recommendations for Action

Meaningful progress will require coordinated action across the whole food system. The report highlights five actions with the greatest potential impact:



Reformulate Staple Foods

Reformulate widely consumed staple foods to increase fibre through the "Health By Stealth" approach, with gradual, taste-neutral changes to high-volume products.



Collaborate Across Supply Chains

Innovate and explore new ingredients, breeding and varietal selection to increase dietary fibre without compromising on quality or taste, from crop breeders to manufacturers.



Promote Higher-Fibre Choices

Promote higher-fibre choices across retail, out-of-home and online by making them more visible and appealing.



Strengthen Communication

Use simple, consistent labelling on fibre, supported by messaging to raise awareness.



National Consumer Campaign

Develop a coordinated national consumer campaign to increase awareness and drive demand for higher-fibre foods, supported by schools, retail partnerships and public campaigns.

Creating supportive food environments through availability, placement, pricing, menu architecture and simple communication cues will be important for shifting behaviour at scale, making higher-fibre choices more accessible, appealing and routine across the UK population.

Recommendations by Sector



Policy

- Implement mandatory fibre labelling on back of pack
- Consider adding fibre on front of pack traffic light labels
- Review fibre-related health claims for clearer consumer communication
- Strengthen national food composition datasets
- Align fibre activity across procurement, agriculture, health and school food policies



Industry & Manufacturers

- Stepwise reformulation of frequently consumed foods
- Gradual grain swaps and wholegrain integration
- Incorporation of pulses, vegetables and functional fibres
- Protect taste, texture, affordability and overall nutritional quality



Retail

- Support fibre intake through pricing, availability and placement
- Prioritise lower-cost everyday staples and own-label ranges
- Use on-pack cues such as wholegrain logos or simple visual information



Out-of-Home & Catering

- Increase availability and visibility of higher-fibre options
- Provide fibre information on menus where appropriate
- Offer brown rice, wholemeal bread, wholegrain pasta, pulses and vegetables
- Use menu architecture to make higher-fibre dishes easier to choose



Science & Agronomy

- Develop crop-based solutions including higher-fibre wheat and pulse-based ingredients
- Strengthen domestic supply chains for fibre-rich crops
- Secure procurement commitments and grower incentives
- Continue funding for academic and food system partnerships



Education & Upskilling

- Position fibre as part of prevention and long-term health, beyond bowel health
- Provide practical tools and training in primary care, schools and retail
- Offer realistic advice accounting for limited time, money or cooking confidence
- Bespoke training for health professionals, chefs and product developers