

MIND THE NUTRIENT GAP: THE CASE FOR FORTIFYING PLANT-BASED ALTERNATIVES TO DAIRY



Dr Martha Redway
Nutrition & Science Communication Manager
Danone UK & Ireland

As more people swap their morning splash of milk for plant-based alternatives, what does this mean for the nutrients in their cup or bowl? Plant-based dairy alternatives are popular, and health professionals now find themselves at the frontline of a new nutritional consideration: ensuring that the shift towards more plant-rich diets supports nutritional adequacy and doesn't leave gaps in essential vitamins and minerals. Read on to discover why fortification is not just a buzzword, but an important tool in supporting the health of those choosing a more plant-based way of living.

From niche to norm

Dietary labels don't always tell the full story, but more of us are now embracing 'plant-forward' diets – those that include a higher proportion of plant-based foods compared to a typical Western diet. A growing body of evidence has prompted leading nutrition authorities to advocate for such dietary patterns – the EAT Lancet Planetary Health Diet¹, the Nordic Nutrition Recommendations², the British Dietetic Associations' One Blue Dot Project³, and even the UK Governments' Eatwell Guide⁴, for example, all promote dietary patterns rich in plant-based foods, for both human and planetary health. For many of these dietary patterns, the term 'plant-based' doesn't mean exclusively vegan – it spans vegetarian and flexitarian approaches, where small-to-moderate amounts of meat and fish still feature, but plants take centre stage⁴.

Consumer interest in plant-based eating is strong, with over half of consumers expressing a desire to eat more plant-based foods in 2024, rising to ~70% among millennials and Gen Z⁵. Gone are the days when plant-based foods were seen as niche options for allergy sufferers or vegans – today, they're embraced by a growing number of people with a wide range of dietary preferences⁶. Many people are now seeking more plant-based options to align with their desire for more sustainable food choices, specific health or wellness outcomes, or to reflect their cultural and ethical beliefs⁷. Many simply prefer the taste! Plant-based dairy alternatives in particular are a popular choice, with up to 38% of Brits reporting having purchased drinks or yogurt alternatives made from legumes, nuts, and seeds in the previous year⁷.

Mind the gap: why fortification matters

In the UK, dairy products like cow's milk and yogurt contribute considerably to micronutrient intakes across all age groups, providing 33-55% of daily calcium, 26-42% of vitamin B2, 27-43% of vitamin B12, and 34-54% of iodine⁸. Whilst many

plant-based dairy alternatives have favourable nutritional qualities, such as being lower in saturated fat and higher in fibre compared with dairy, the plant 'bases' used to make most dairy alternatives (e.g., soya, oat, almond) are not naturally rich in these vitamins and minerals typically found in dairy produce⁹. Therefore, without appropriate fortification, consumers who make the switch to plant-based could be at an increased risk of specific micronutrient insufficiencies. This is especially relevant, as recent data from the UK Feeding the Future study show a progressive shift toward a near 1:1 replacement ratio: as consumers' diets become more plant-based, increases in plant-based milk alternative intakes closely match reductions in cow's milk consumption, indicating direct substitution rather than a change in overall milk-use behaviour (Figure 1)¹⁰.

AVERAGE MILK AND PLANT-BASED MILK ALTERNATIVE CONSUMPTION (ML/DAY) – WOMEN

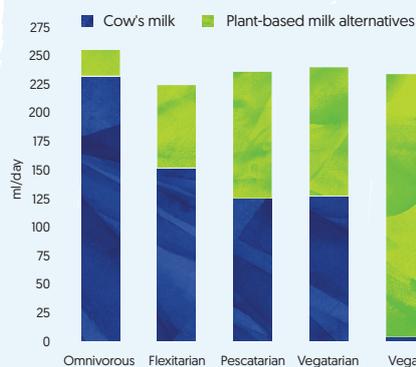


Figure 1. Average daily intake of cow's milk and plant-based milk alternatives in women in the UK. Data from Lawson et al., 2024 – Feeding the Future Study¹⁰.

Fortification – the addition of micronutrients to foods to increase their nutritional value – offers a practical solution to this problem and is nothing new. For example, in the UK non-wholemeal wheat products must be fortified with calcium, iron, niacin and thiamin by law¹¹, whilst

FIBRE FOCUS



Did you know that some plant-based drinks can boost your fibre intake? Unlike cow's milk, options like oat drinks often contain fibre – an important nutrient most Brits don't get enough of¹². In fact, swapping your usual latte for an Alpro Oat latte could add 2-4g of fibre to your diet. **That's up to 13% of your daily recommended intake in one simple switch!**

margarines are commonly fortified with vitamin A and D¹². By incorporating small quantities of vitamins and minerals, manufacturers can enhance the nutritional profile of plant-based drinks and yogurt alternatives, making them more balanced, nourishing additions to our diets. This approach is not just beneficial – it's deemed necessary by experts: the recent joint report from the Scientific Advisory Committee on Nutrition and the Committee on Toxicity concluded that only fortified plant-based drinks provide an adequate nutritional replacement for cow's milk¹³.

So, what happens to dietary intakes when non-fortified plant-based dairy alternatives are used instead of dairy products? Emerging research suggests that micronutrient adequacy is reduced, potentially putting consumers at risk of dietary insufficiency. A recent study in Germany found that replacing cow's milk with unfortified plant-based drinks reduced daily intakes of calcium, vitamin B2, vitamin B12, and iodine by ~50% in children following a balanced diet¹⁴. Similar findings from Australia showed increased prevalence of inadequate intakes of vitamin B2, vitamin B12, and iodine across multiple age groups when unfortified plant-based drinks replaced dairy¹⁵. British studies have shown that when unfortified plant-based drinks are used to replace dairy, iodine intakes can drop significantly¹⁶⁻¹⁸. Nearly half of adolescent girls

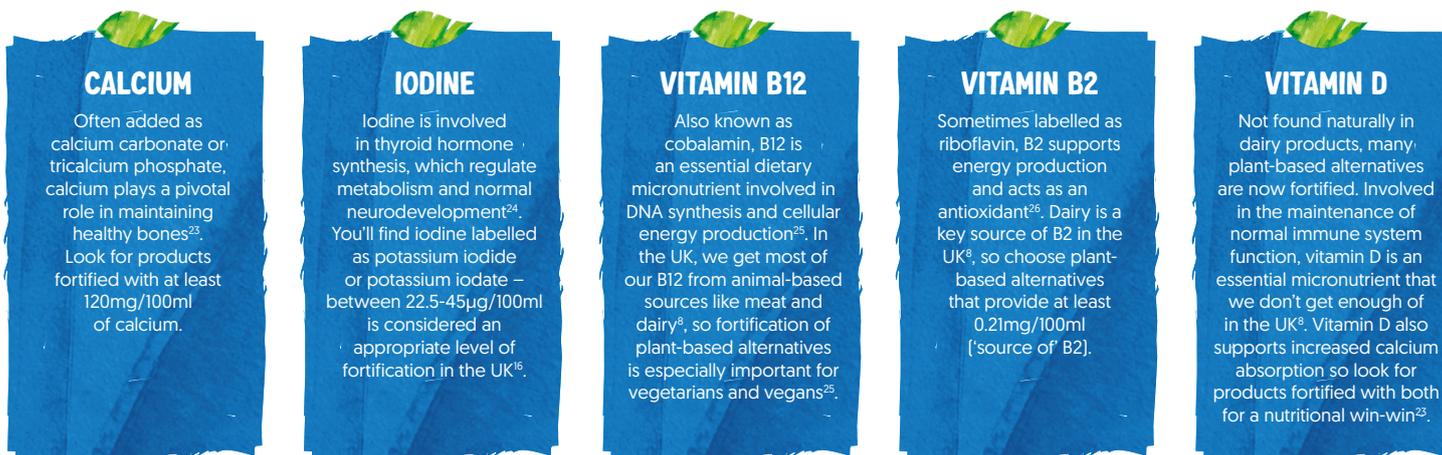
[48%] and one-third of women of reproductive age would fall below the lower reference nutrient intake for iodine if they directly replaced dairy with unfortified plant-based alternatives¹⁶. These potential insufficiencies are also concerning for other vulnerable populations such as children, older adults, pregnant people and those following vegan diets.

'Clean' labels, hidden risks

A growing paradox in nutrition is the consumer trend towards so-called 'clean label' – foods with shorter ingredients lists which are often perceived as a proxy of the healthiness of products. Recent market insights suggest that 1 in 2 European consumers prefer a 'clean label' approach to healthy eating, seeking no additives, organic options and clear, transparent labelling¹⁹. However, this preference often comes at a cost. Many 'clean label' options, including organic plant-based dairy alternatives, are unfortified, leaving consumers at risk of missing essential nutrients such as calcium, vitamin D, and B12. Ingredients sometimes branded online as 'unnecessary additives' – such as gums, stabilisers, and oils – actually play critical roles in texture, stability, and nutrient delivery. For example, gellan gum helps keep added minerals like calcium evenly distributed in the product²⁰. Importantly, all such ingredients are approved as safe by leading authorities like EFSA²¹ and the UK Food Standards Agency²².

Label literacy: what to look for on pack

Health professionals play a critical role in supporting health and can guide patients to balance label preferences with nutritional adequacy. Opting for products enriched with the vitamins and minerals outlined below can help to avoid reduced intakes of essential micronutrients:



Beyond fortification: integrating plant-based dairy alternatives into balanced diets

It is also important to recognise the unique benefits of plant-based dairy alternatives within a broader diet. These products offer a range of nutritional benefits that can fit with different dietary goals, contribute to diverse eating patterns and support overall nutrition. For example, soya drinks provide a source of complete protein²⁷ and almond drinks tend to be lower in energy which may suit those managing calorie intake. In general, plant-based dairy alternatives tend to be lower in saturated fat than their dairy counterparts²⁸, and some, such as oat drinks, often contain valuable fibre – especially important given that 96% of adults in the UK fall short of recommended fibre intake levels⁸.

Ultimately, the choice comes down to individual needs and preferences, with each option offering something unique depending on what people are looking for in their diets. Fortification, however, remains a key consideration. Health professionals play a vital role in providing clear, evidence-based guidance, helping patients navigate choices and use fortification and label literacy to maintain varied, nutritionally adequate diets that support long-term health.

KEY POINTS TO REMEMBER:

- Fortification adds important nutrients** – unfortified plant-based dairy alternatives do not provide comparable levels of key vitamins and minerals. Evidence consistently shows reduced micronutrient intakes when unfortified options replace dairy.
- Check the label** – aim for products that contain nutrients like calcium, iodine, vitamin B12, riboflavin [B2] and ideally vitamin D. Plant-based drinks can offer other benefits [protein, fibre, lower saturated fat], but fortification ensures they support overall nutritional adequacy.
- 'Clean label' choices often mean 'nutrient-light'** – many organic or short-ingredient-list products are unfortified. Health professionals should support patients in understanding that ingredient simplicity can come at the cost of essential micronutrients.

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