

THE NUTRITIONAL BENEFITS OF IRISH CHEDDAR CHEESE

Tirlán have been at the forefront of cheddar cheese technology for more than 60 years' and our experience developing award-winning cheese for international retail, foodservice and ingredients markets is globally recognised. We produce a wide range of high quality natural cheeses with the right tastes and performance characteristics for all your application needs. Our CheddMax portfolio offers natural cheese solutions which will deliver exceptional results in the areas of browning, slicing, shredding, melt and many more desirable functionalities.

With such a longstanding, notable presence in the global cheddar market, we cater for a vast range of customer requirements. Whether we are working with major customers in Europe, Asia, the Middle East and North Africa, or North and South America we draw on an extensive knowledge base and proven track record in innovation and design.



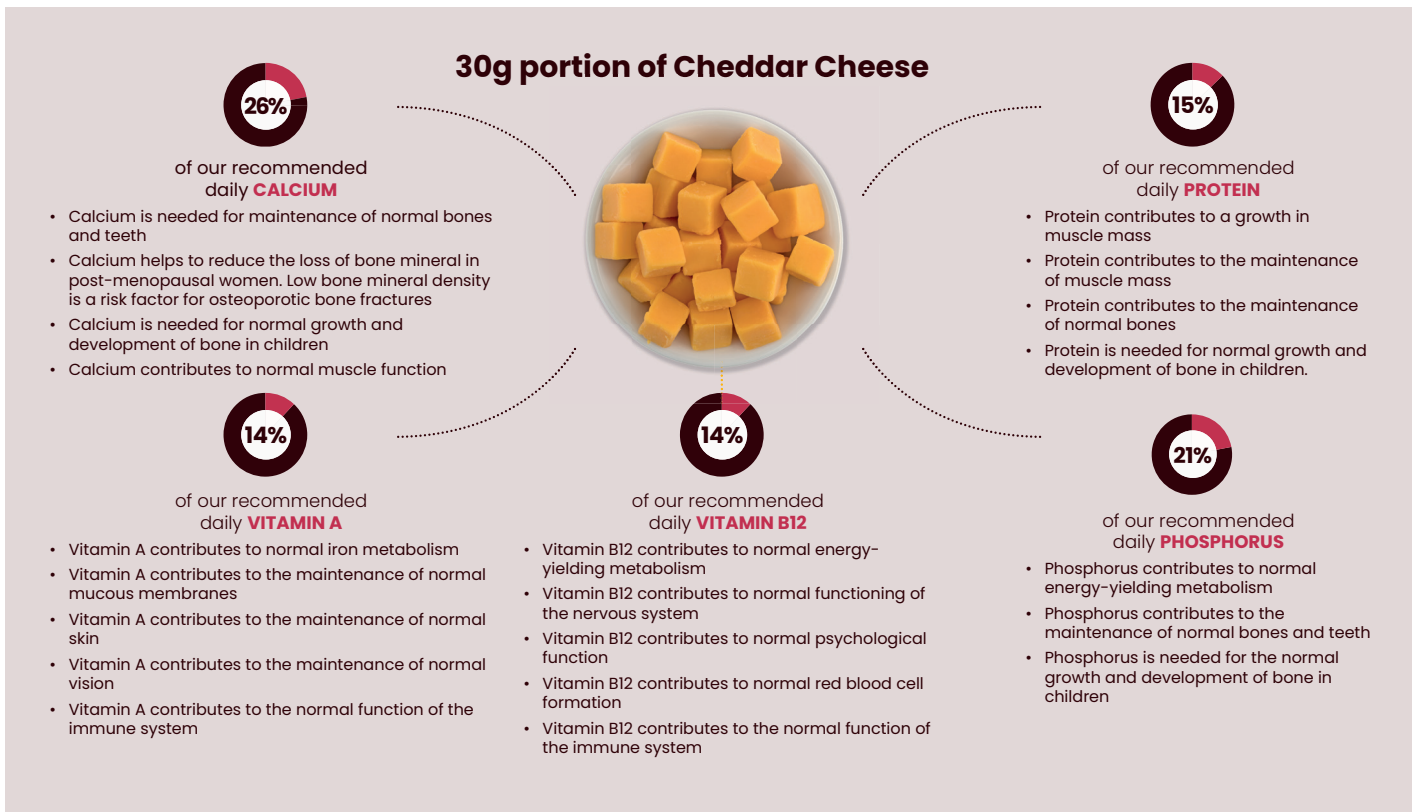
Cheddar Cheese is a food that can cause consumer confusion when it comes to understanding its role in a healthy diet.

In this article we highlight recent research (outlined in detail below) which indicated some positive nutritional benefits of Irish Cheddar cheese. We also explore if dairy from grass fed cows has any additional benefits.

Consumers are living longer and leading busier lives. Eating well and maintaining a healthy lifestyle is becoming more of a priority. Consumers are also more aware of the health issues that could affect them and therefore want to understand the benefits and drawbacks of the foods they consumer.

Dairy foods have been an important part of the diet and have been consumed in Europe for over 8000 years. Recent findings suggest that Europeans have been producing and consuming cheese since at least the 6th millennium BC.

Cheese is a matrix of nutrients. A 30g portion of cheddar provides calcium, phosphorus, vitamin B12 and protein and can be enjoyed as part of a healthy, balanced diet.

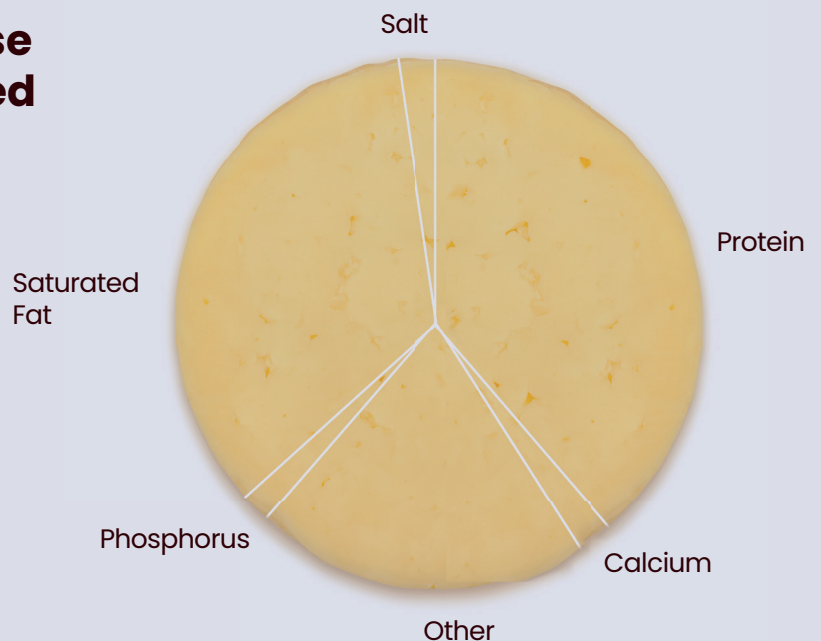


*Based on the EU Register of Nutrition and Health Claims

Despite the nutritional value of cheddar cheese it can often be perceived as unhealthy.

The fact that cheese contains saturated fat and salt cannot be ignored. This is what causes consumer concern about cheese consumption.

However, is dairy saturated fat bad? This is what we will now explore in more detail. Saturated fat and salt in isolation can be linked to negative health impacts such as cardiovascular disease but when consumed together cheese's total nutritional package is associated with positive health effects.



Dairy, more than the sum of its parts.

Elevated LDL-cholesterol is one of the known risks of cardiovascular disease (CVD). Intake of saturated fat is traditionally associated with increased LDL-cholesterol. For this reason, dietary guidelines recommend that the daily intake of saturated fat should be as low as possible^{2,3}. Cheese is therefore often targeted by public health bodies in efforts to reduce saturated fat.

This view is now being challenged. Research suggests that cheese, despite the saturated fat content, does not elevate the risk of CVD development. In one study, high cheese

consumption was associated with 10-14% lower risk of CVD compared to low consumption⁴.

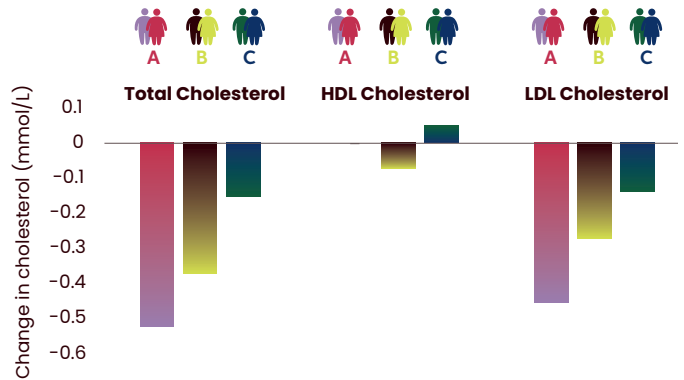
This indicates the importance of the dairy matrix, where instead of examining single nutrients in isolation, the benefits of the unique combination of nutrients interacting within a food are considered⁵. Food for Health Ireland (FHI) is an Enterprise Ireland technology dairy centre. Research by FHI further examined the relationships between the cheese matrix and heart health using Irish cheddar cheese⁶. In this study, 164 overweight adults aged 50+ years were randomly assigned 3 product groups to consume for 6 weeks:

Effects of the cheese matrix: changes in blood cholesterol over a 6 week intervention

Group C
Butter + casein + calcium supplement (none of the dairy fat in the cheese matrix)

Group A
120g of full fat cheese (all dairy fat contained in the cheese matrix)

Group B
120g of low-fat cheese + butter (some of the dairy fat in the cheese matrix)



At the end of the 6 weeks, individuals in Group A had significantly lower total and LDL-cholesterol than group C, even though they all consumed the same amounts of fat, protein and calcium. There was no changes in other measurements such as HDL-cholesterol, body weight or body fat.

The results of the study indicate that dairy fat consumed as cheese affected blood cholesterol differently. This effect appears to be due to an additive effect of the nutrients contained within the structure of cheese compared to when these nutrients are consumed separately.

It has been suggested that the effect on LDL cholesterol may arise from the relatively high levels of calcium and protein found in cheddar cheese.

These nutrients may counteract the cholesterol raising properties of saturated fat by binding to the fat and preventing absorption, but more research is required⁷.



Do dairy products from grass fed cows contain additional benefits?

Research on Irish cheddar cheese has found that grass-fed dairy has several nutritional benefits compared to that from grain-fed cheese⁸. These include:

- ✓ Higher levels of omega-3 fatty acids compared to non-grass-fed cheese.
- ✓ Twice the levels of conjugated linoleic acid (CLA) in grass-fed cheddar compared to grain-fed.
- ✓ Higher levels of beta-carotene. Beta-carotene also gives Irish cheddar and butter its golden hue.

Summary



Our Irish cheddar cheese has a positive effect on health.



It is a matrix of nutrients and a 30g portion is a source of calcium, phosphorus and protein.



Research has shown that the saturated fat in Irish Cheddar Cheese does not affect cholesterol in the way it was previously thought.



Grass-fed Irish cheddar cheese also has higher levels of omega-3 fatty acids, higher levels of CLA and higher level of beta-carotene.

IRELAND'S UNIQUE ENVIRONMENT



Cleanest air in Europe

Urban outdoor air pollution index



Island Location

On the edge of the Atlantic Ocean with plentiful rain



Trusted Partner

Supporting leading global brands



Irish farming tradition and heritage

Generational family farms



Pure water and rich soil

Boost nutritional value



Temperate maritime climate

Perfect conditions for oat cultivation



Clean label

Natural, Non-GMO & Kosher

OUR R&D FUNCTION



The innovation hub

Our Innovation Hub houses world class facilities enabling us to bring our concepts to life.



Leading the way in process and technology

Functionalising and developing ingredients whilst always maintaining nutritional integrity.



Our external ecosystem

Our extensive network of external partners ensures we are agile.



Developed by our experts

Our team of experts passionately researching the worlds of dairy and plant.



Providing superior nutrition

At Tirlán the foundations of nutrition are built on dairy and plant. Our ethos: "Good for You, Good for the Planet".

References:

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8. O'Callaghan, T et al., 2017. J Dairy Sci. 2017; 100(8), 6053-6073.



Get in Touch

To find out more about how Tirlán can support you in developing your solutions, please contact us directly.

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