# Nutrition

In a **healthy**, **sustainable** diet the **nutritional benefits** of **dairy foods** are **hard** to **replace**

### Dairy as Part of a Sustainable Diet

The United Nations has defined the four pillars that make up a sustainable diet as: Health, Economics, Society and Environment with all four playing their part in ensuring the diet is nutritious, affordable, environmentally sustainable, and culturally appropriate.

As Northern Ireland moves towards a carbon neutral society to meet future climate change commitments, consumers are becoming more aware of the impact their purchasing decisions are having on the environment. Environment is only one of the dimensions to look at when trying to achieve a sustainable diet. The nutritional benefits of dairy products are hard to replicate through other food groups and removing them can lead to more expensive diets and poorer nutrient intake.

## Dairy's Contribution to the Nutritional Quality of Northern Ireland Diets

Milk and dairy foods make an important contribution to the nutritional quality of the diet in Northern Ireland. They are the main providers of calcium, and dairy also supplies significant amounts of many other nutrients. As illustrated in table 1, the dairy food group is the largest contributor to intakes of calcium, iodine, vitamin B2 and vitamin B12, supplying around a third for adults and even more in children and teenagers. For example, around 55% of iodine intake for children aged 4-10 comes from dairy foods; 44% in 11 to 18 year-olds.

**Table 1. Contribution (%) of dairy foods to nutrient intakes in NI[3]**

| Nutrients | 4-10 years | 11-18 years | 19-64 years | 65 years + |
|---|---|---|---|---|
| Protein | 21 | 15 | 13 | 16 |
| Calcium | 45 | 37 | 37 | 43 |
| Potassium | 22 | 15 | 12 | 14 |
| Iodine | 55 | 44 | 35 | 39 |
| Zinc | 23 | 16 | 15 | 17 |
| Vitamin A | 24 | 18 | 17 | 15 |
| Vitamin B2 | 43 | 32 | 29 | 36 |
| Vitamin B12 | 54 | 40 | 35 | - |

## The Risk of Missing Nutrients

Some of these nutrients cannot be easily replaced, and, worryingly, some are already in short supply – for example, a fifth of teenage girls don't get enough calcium and vitamin B2, and over a quarter have very low intakes of iodine.

Calcium is particularly important during the teenage years as bones grow rapidly in length and strength. It is estimated that almost 90% of a person's bone strength will have been achieved by the age of 18. Shortages of iodine in young women's diets are also a concern as iodine has several important roles in the body, including contributing to the production and function of thyroid hormones, which in turn are involved in normal growth and metabolism.

[3] *National Diet and Nutrition Survey. Results from Years 5-9 (combined) of the Rolling Programme (2012/13-2016/17): Northern Ireland.*

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> *"...almost 90% of a person's bone strength will have been achieved by the age of 18."*

**Table 2. Inadequate nutrition intakes for female consumers in Northern Ireland[4]**

| | % Inadequate nutrient intakes* | |
|---|---|---|
| | Girls 11 to 18 years | Women 19 to 64 years |
| Calcium | 19 | 9 |
| Iodine | 29 | 14 |
| Riboflavin (vitamin B2) | 19 | 13 |

A new survey commissioned by the European Milk Forum (EMF) found more than half of respondents (52.5%) believe their health and wellbeing would be negatively affected if dairy products were suddenly no longer available.

It was also found that 63% of Northern Ireland consumers believe the dairy sector can help feed the world in a sustainable way and over half (56%) believe the sector plays an important role in creating a more sustainable future. This sustainability is evident in the local dairy sector which has reduced the carbon intensity of producing a litre of milk by over a third since 1990 and the sector is continuing to work to improve its environmental credentials further through efficiencies, applied research and adopting new technology at both the farm and processing stages.

[4] *National Diet and Nutrition Survey. Results from Years 5-9 (combined) of the Rolling Programme (2012/13-2016/17): Northern Ireland.*

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*"Dairy products such as milk, yogurt and cheese are rich in nutrients and make an important contribution to a healthy sustainable diet. A fine balance needs to be struck when tailoring a low carbon, environmentally friendly diet – we can't lose sight of the need for a diet which provides the necessary nutrients when considering sustainability. Dairy has an important role to play in a sustainable diet that is healthy, acceptable and affordable."*

Dr Carole Lowis
*Dairy Council NI Nutritionist*

The survey also found that while many NI consumers place importance on the environmental credentials of their food, quality and taste are of higher importance. When respondents were asked what the most important factors are when purchasing food, 64% answered taste and only 22% said carbon footprint.

**Table 3. Contribution of milk to nutrient requirements (%)**

| | A glass of semi-skimmed milk (200ml) | | |
|---|---|---|---|
| | Man | Woman | 7-10 year-old |
| Protein | 13 | 16 | 25 |
| Vitamin A | 10 | 10 | 12 |
| Thiamin | 6 | 7 | 9 |
| Riboflavin | 38 | 44 | 48 |
| Niacin | 8 | 11 | 12 |
| Folate | 9 | 9 | 12 |
| Vitamin B6 | 9 | 10 | 12 |
| Vitamin B12 | 100+ | 100+ | 100+ |
| Vitamin C | 10 | 10 | 13 |
| Calcium | 34 | 34 | 45 |
| Magnesium | 7 | 8 | 11 |
| Potassium | 9 | 9 | 16 |
| Phosphorus | 34 | 34 | 42 |
| Zinc | 8 | 11 | 11 |
| Iodine | 44 | 44 | 56 |