



## **Dairy All-Party Parliamentary Group**

# **Putting Dairy Back on the Daily Menu**

**March 2016**

*N.B.: This is not an official publication of the House of Commons or the House of Lords. It has not been approved by either House or their Committees. All-Party Groups are informal groups of members of both Houses with a common interest in particular issues. The views expressed in this Report are those of the Group.*



# Table of Contents

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<b>ABOUT THE DAIRY ALL-PARTY PARLIAMENTARY GROUP</b>	<b>5</b>
<b>FOREWORD</b>	<b>7</b>
<b>EXECUTIVE SUMMARY</b>	<b>9</b>
<b>1 – DAIRY, NUTRITION AND HEALTH</b>	<b>10</b>
<b>DAIRY AT EVERY AGE</b>	<b>10</b>
INTOLERANCE V. ALLERGY	10
<b>A PATH TO HEALTHY AGEING</b>	<b>11</b>
<b>NATURE’S OWN SPORTS DRINK</b>	<b>11</b>
<b>2 – DAIRY IN REGULATIONS</b>	<b>13</b>
<b>THE SHORTFALLS OF NUTRIENT PROFILES</b>	<b>13</b>
<b>A CAUTIOUS APPROACH TO REFORMULATION</b>	<b>14</b>
NUTRIENTS VERSUS WHOLE FOODS	14
A HOLISTIC APPROACH TO NUTRITION POLICIES	15
<b>3 – DAIRY IN A SUSTAINABLE DIET</b>	<b>16</b>
<b>SUSTAINABLE DIETS</b>	<b>16</b>
ENVIRONMENTAL IMPACT OF DAIRY SUBSTITUTION	16
<b>FIGHTING SCIENCE WITH SCIENCE</b>	<b>18</b>
<b>4 – PUTTING DAIRY BACK ON THE DAILY MENU</b>	<b>19</b>
SUSTAINING LONG-TERM DEMAND FOR DAIRY	19
<b>3-A-DAY DAIRY PROGRAMME</b>	<b>20</b>
<b>RECOMMENDATIONS</b>	<b>22</b>
<b>WITNESSES</b>	<b>23</b>
<b>APPENDIX 1 – LETTER ON A 3-A-DAY DAIRY PROGRAMME</b>	<b>24</b>
<b>APPENDIX 2 - MCCANCE AND WIDDOWSON’S ‘COMPOSITION OF FOODS INTEGRATED DATASET’ ON THE NUTRIENT CONTENT OF THE UK FOOD SUPPLY</b>	<b>26</b>



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## About the Dairy All-Party Parliamentary Group

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The Dairy All-Party Parliamentary Group is a cross-party group of MPs and Peers which aims to provide a forum for parliamentarians to discuss issues of interest for the dairy industry and ensure parliamentarians are fully briefed on developments in the dairy supply chain.

### **Officers**

Heather Wheeler MP (Chairman)  
Simon Hoare MP (Vice-Chairman)  
Jim Fitzpatrick MP (Vice-Chairman)  
Dr Lisa Cameron MP (Vice-Chairman)  
Margaret Ritchie MP (Vice-Chairman)  
Mark Williams MP (Treasurer and Secretary)

All-Party Groups are informal, cross-party, interest groups that have no official status within Parliament and are not accorded any powers or funding by it.

Dairy UK and the Royal Association of British Dairy Farmers (RABDF) act as the APPG's secretariat. The views expressed in this report are solely those of the APPG.

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## Foreword

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The dairy industry has long played an important role in helping to feed the people of the UK. At a time when it needs strong support and tangible solutions to help weather the storm of volatility, it is disheartening to hear negative or misleading messages about the benefits of milk and dairy products.

Therefore, the Dairy All-Party Parliamentary Group launched a new enquiry on the role of dairy in the public health debate to support the future of the UK dairy industry by highlighting the unique contribution of dairy to public health.

Over the last few months, we heard from several experts from the UK and abroad, all with unique perspectives on dairy and health. We examined the impact of public health policies on the dairy industry and on consumers to ensure that the dairy food group plays a key role in any Government strategy on public health and healthy eating.

We looked at the role dairy plays in the daily diet and how it contributes to a healthy lifestyle no matter how old you are. From school milk schemes for young children to nutrition and healthy ageing campaigns, the APPG gained a better understanding of the role played by dairy.

We also took a close look at policy issues such as nutrient profiling and reformulation and their impact when it comes to focusing on individual nutrients versus the nutrient richness of whole foods.

Over the course of our last enquiry, I was quite surprised to learn about the large number of misconceptions that remain about dairy. Whether it is about intolerance and allergies or dairy and illnesses, many clichés and dairy myths resist even the strongest science and we discussed how best to explain them to the media, decision-makers and consumers.

I have every confidence that this report will help identify how parliamentarians and Government can work together to support the crucial role of dairy in the public health debate. We have an outstanding industry in the UK providing an ever-growing range of dairy products and striving to meet consumers' evolving needs and expectations. I am a proud supporter of this great industry and I believe collaborative work is key to reaching our goals.

We held three productive evidence sessions and I would like to thank all the experts who agreed to share their views and expertise with members of the APPG. I would also like to thank Dairy UK and the Royal Association of British Dairy Farmers for their work as secretariat to the APPG.

I believe that we in Parliament can, and must, support our great British dairy industry as much as possible and through the Dairy APPG we will make sure we put dairy back on the daily menu.



Heather Wheeler MP  
Chairman





## Executive Summary

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Dairy products have an important role to play as part of a healthy and balanced diet and lifestyle. A large number of peer reviewed papers from around the world not only demonstrate the importance of dairy in helping people meet their nutrient needs but also how milk and dairy foods appear to be protective in terms of certain diseases, are beneficial for recovery after exercise and can contribute to healthy ageing.

However, a number of existing regulations and upcoming legislation focus only on the effect of individual nutrients. The evidence presented to the APPG showed that policies which target individual nutrients do not always provide a balanced view of certain foods and often fail to take into account the effect of whole foods and dietary patterns on health outcomes.

Systems such as nutrient profiles would create an unnecessary burden on already stringent regulations and could be detrimental to natural, traditional foods, while leaving the door open for nutrient-poor foods. It is equally important to take a nuanced approach to reformulation programmes and ensure they recognise the nutrient-density of milk and dairy products. Additionally, any policy or initiative on sugar intake must make a clear differentiation between intrinsic sugars such as lactose versus 'free sugars', as the former have not been shown to have negative effects on health.

The dairy food group has strong environmental and nutritional credentials and should be promoted as such. All food sectors, including the plant-based alternatives sector, should have a robust evidence-base when discussing the benefits and strengths of their products.

Despite the fact that dairy foods are present in most of this country's fridges, dairy consumption in the UK is a concern for the future. Although consumers over 65 years of age remain loyal to milk and dairy products, younger generations do not always see dairy as being an essential part of their diet. Not only is this a real concern as young consumers accordingly miss out on essential nutrients, but it is also bound to weaken long-term demand for dairy and jeopardise the future of the industry.

Encouraging dairy consumption from a young age should be a priority. Milk and dairy are paramount to children's health, growth and wellbeing; industry, Government and all stakeholders should work with schools to circulate positive messages about dairy consumption and educate about the benefits of dairy.

The UK must put dairy back on the daily menu. Based on evidence received during the enquiry, the Dairy APPG wrote to the Department of Health to ask for the implementation of a 3-a-day programme for milk and dairy products to encourage the consumption of dairy products as part of a healthy and balanced diet and to educate consumers of the benefits of dairy.

# 1 – Dairy, Nutrition and Health

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## Dairy at every age

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Dairy products have an important role to play as part of a healthy and balanced diet and lifestyle.

A large number of peer reviewed papers from around the world demonstrate the importance of dairy in helping people meet their nutrient needs, how milk and dairy foods appear to be protective in terms of certain diseases, are beneficial for recovery after exercise and can contribute to healthy ageing.

Dairy products such as milk, cheese and yogurt are naturally nutrient rich foods. Milk, hard cheese and yogurt are the number one source of calcium in the UK diet. They also contain a wealth of other key nutrients such as protein, riboflavin, vitamin B12, iodine, phosphorus and potassium, all of which play an essential role in a healthy diet.

Calcium and other bone friendly nutrients found in milk and dairy are important in developing bone. This is particularly important in childhood and adolescent children as these are critical periods for bone growth and skeletal development. Low calcium intake in children and teenagers is a serious cause of concern because it will affect the laying down of calcium in the bone and therefore bone health into the future.

The dairy food group is also an excellent source of iodine, an important mineral needed to form hormones in the thyroid. These hormones are necessary for a number of body processes, including metabolism regulation and proper foetal brain development. Iodine deficiency is a growing issue for young girls and women but is a particular concern for pregnant women.

In addition to the well-known benefits of calcium for bones and teeth, it is important to remember that the nutrients found in dairy products have a significant impact on a large number of body functions including muscle mass, growth, energy release and the immune system.

Last but not least, dairy products are an excellent source of high quality protein. Protein is known to have a wide range of positive impacts on the body including a feeling of satiety and muscle recovery. The effects of dairy protein are often underestimated and under-communicated<sup>1</sup>.

### Intolerance v. allergy

Many people cite lactose intolerance as a reason for not consuming dairy foods. However, this is a commonly misunderstood condition. Studies have shown that even people who have lactose intolerance, i.e. do not produce enough lactase, the enzyme needed to break down lactose, can consume yogurt and cheese without symptoms.

Milk protein allergy and lactose intolerance are entirely different conditions but people confuse the two. People diagnosed with milk protein allergy need to remove dairy from the diet but many children who are diagnosed with this allergy grow out of it by the time they reach school age.

People with milk protein allergy must also see a qualified dietitian to help them replace the nutrients they will be missing out on by not consuming dairy and to assess their condition on an ongoing basis.

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<sup>1</sup> Catherine Collins, St George's Hospital NHS Trust – Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

## A path to healthy ageing

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Dairy can contribute to healthy ageing by providing an excellent source of protein and other nutrients at a time of life when people tend to eat a little less.

In the UK, malnutrition is a growing issue and affects more than 10% of people aged 65 and over, and 16% of those aged 85 and over. Factors which contribute to malnutrition include the loss of appetite due to poor health and the lack of easy access to affordable and/or nutritious food.

The consequences of malnutrition in older people have a significant financial impact on health services; the European Nutrition for Health Alliance (ENHA) estimates malnutrition costs the economy £7.3bn per year<sup>2</sup>. Malnutrition can have severe consequences for health, including fatigue, frailty and sarcopenia.

Sarcopenia – or age-related muscle loss – is a burgeoning health issue in the later stages of life. Once in their forties and fifties, people start losing muscle mass which can lead to other health issues such as osteoporosis. Muscle loss can be detrimental to the quality of life with higher risks of falls and fractures. Sarcopenia can be mitigated through protein intake which helps build up muscle mass.

Thanks to high amounts of protein, dairy products such as whey have been shown to help optimise muscle mass and attenuate its decline<sup>3</sup>. In terms of malnutrition, the dairy food group offers a wealth of affordable, versatile and easily accessible nutrient-rich products with essential protein and minerals. Getting dairy protein into the diet can be as easy as cheese on toast, a latte or a yogurt with berries.

**The Dairy APPG believes milk and dairy products have a key role to play to help healthy ageing and tackle malnutrition in older people. Government should work with industry to ensure the right messages are circulated and spread the word on the benefits of dairy for the elderly.**

## Nature's own sports drink

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A lesser known fact about milk and dairy products is that they are amongst the most efficient sports drinks and an increasing body of evidence suggests that they have a key role to play in sports recovery thanks to their wide range of natural nutrients<sup>4</sup>.

Research has shown that, in addition to providing carbohydrates, used as fuel by the body, dairy also provides high quality protein which contributes to muscle strength and recovery. Products such as yogurt or whey products help the body rebuild muscle after exercising. Milk also naturally contains electrolytes, i.e. sodium and potassium, which makes it an excellent post exercise rehydration source.

As dairy consumption increases satiety, dairy products are also particularly useful in terms of appetite regulation and controlling further food intake as people feel fuller longer.

Milk can be considered a cost effective alternative to the wide range of expensive high added sugar sports drinks on the market.

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<sup>2</sup> The European Nutrition for Health Alliance, Malnutrition, <http://www.european-nutrition.org/index.php/malnutrition>

<sup>3</sup> Dr Anne Mullen, The Dairy Council– Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

<sup>4</sup> Dr Lewis James, Loughborough University– Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

The APPG noted that the UK industry has been working on this particular market for several years and has been developing new products to meet these expectations.

**The Dairy APPG believes milk and dairy products should be put front and centre as outstanding sports recovery products. This can be done by promoting the benefits and effectiveness of natural dairy products in sports recovery, exploring new ways to include and offer dairy products in gyms and leisure centres as well as encouraging innovation and new product development to target this market.**

## 2 – Dairy in Regulations

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### The shortfalls of nutrient profiles

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In 2006, the European Union introduced a new set of regulations for nutrition and health claims of food products (Regulation (EC) N° 1924/2006) to protect consumers against misleading claims. These apply to nutrition claims such as 'low fat', 'high in fibre' or 'source of calcium' as well as health claims implying a relationship between food and health such as 'x food is good for joint health'.

It is widely agreed that the sentiment behind the regulations is correct and that consumers need to be protected from misleading claims. However, the practicalities of certain parts of the regulations, i.e. the potential impact of the introduction of a nutrient profile, are a concern.

The 2006 Regulation includes a provision for the creation of nutrient profiles, which would ensure that nutrition and health claims could only be made on foods fitting a profile. The criteria for the profile was to be determined at a later stage.

Any food failing the profile for one nutrient would be barred from making a health claim but could still make a nutrition claim, as long as the specific nutrient for which the food failed the profile was highlighted to the consumer. Additionally, any food failing the profile for more than one nutrient would be barred from making any claim whatsoever.

The initial proposal by the Commission for a profile to form part of the regulation focused on salt, fat and sugar. This was deemed inappropriate as it did not take into account any of the other nutrients provided by foods like protein, vitamins or minerals and therefore did not reflect the overall contribution of the food to the diet. In the end, the proposed profiles were not implemented. However, there are still many who call for the introduction of profiles based on salt, fat and sugar and if this were ever to happen, the impact on natural foods such as cheese and yogurt would be devastating.

For example, based on the originally proposed profiles, no claims referring to calcium levels in nutrient-rich foods such as cheese would be allowed. Additionally, many fruit yogurts are rich in calcium and high quality protein and provide a range of vitamins and minerals. However, they could also fall foul of a nutrient profiling scheme based solely on salt, fat and sugar and be barred from making any claims<sup>5</sup>. Conversely, a nutrient-poor product like a diet soda would pass the profile.

In addition to being detrimental to the UK dairy industry at home, as it would impact on the consumers' view of healthful dairy foods, this could jeopardise the view of how healthful dairy foods are on the global market. Both the UK and wider EU dairy industry are exploring emerging markets which have a desire to consume more dairy for its taste and versatility as well as its nutrition and health benefits.

A nutrient profile which suggests that UK or other EU dairy foods are not nutritionally fit to bear claims would be highly detrimental to their desirability. As non-EU countries would not have the same constraints on promoting the nutritional benefits of their products, this would put the UK and other EU countries at a commercial disadvantage.

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<sup>5</sup> Dr Judith Bryans, Dairy UK – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015

The European Union is set to review the regulations in 2016 to improve the transparency and fluidity of the current system. Ahead of the discussion in Parliament, the Commission published a position stating its opposition to nutrient profiles.

**The Dairy APPG believes nutrient profiles would create an unnecessary burden on already stringent regulations and could be detrimental to natural, traditional foods, while leaving the door open for nutrient-poor foods. The group asks Members of the European Parliament to repeal nutrient profiles and asks the UK Government to support this call.**

## **A cautious approach to reformulation**

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Systems such as nutrient profiles focus only on the effect of individual nutrients. The evidence presented to the APPG showed that policies which target individual nutrients do not always provide a balanced view of certain foods and often fail to take into account the effect of whole foods and dietary patterns on health outcomes.

### **Nutrients versus whole foods**

Although they have often been criticised for containing saturated fat and, in some instances, added sugar, a very large body of evidence suggests that the consumption of dairy products does not have a negative effect on weight and could even have a beneficial impact. Additionally, a growing number of studies indicate that milk and dairy foods have a neutral or protective effect on heart disease and type 2 diabetes. Even dairy foods like cheese, often targeted for saturated fat and salt content, display beneficial effects on cardiometabolic risk.

Saturated Fatty Acids (SFA) are heterogeneous in structure and function and evidence shows that only certain SFA in excess have been linked to coronary heart disease risk. Professor Legrand noted that “SFA are nutrients, not poisons”<sup>6</sup>. Besides supplying energy, studies suggest that some SFA have other important physiological effects including the suppression of colonic inflammation. Certain SFA are also structural components of lipids, which are important parts of cell skin and membranes.

Therefore, isolating SFA as one single dietary category can lead to confusion and ignore the specific effects of individual SFA. It is now known that saturated fat represents a family of molecules and has diverse effects on cardiometabolic health<sup>7</sup>. Those found in milk and dairy may have a protective effect on the metabolic syndrome, which helps prevent heart disease.

Looking at sugar, it is crucial to remember that there is a significant difference between sugars naturally occurring in food products such as lactose in milk and ‘free sugars’ as defined by the latest Scientific Advisory Committee on Nutrition (SACN) report<sup>8</sup>. It is therefore important to make a clear differentiation between intrinsic sugars such as lactose and ‘free sugars’, as the former have not been shown to have negative effects on health<sup>9</sup>.

Data from the National Diet and Nutrition Survey show that milk and dairy products only account for 12% of the intake of non-milk extrinsic sugars (‘free sugars’) for children aged 4 to 10, down

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<sup>6</sup> Prof Philippe Legrand, INRA – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015

<sup>7</sup> Dr Anne Mullen, The Dairy Council– Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

<sup>8</sup> Scientific Advisory Committee on Nutrition, Carbohydrates and Health, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/445503/SACN\\_Carbohydrates\\_and\\_Health.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf)

<sup>9</sup> Dr Judith Bryans, Dairy UK – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015

to 7% for children aged 11 to 18<sup>10</sup>. Conversely, cereals including pasta, breakfast cereals and biscuits account for 29% of 'free sugar' intake for children aged 4 to 10 while confectionery accounts for 22%. Worryingly, nutrient-poor soft drinks and juices also account for 30% of non-milk extrinsic sugars intake for children aged 4 to 10 up to a staggering 40% for children aged 11 to 18.

### A holistic approach to nutrition policies

People do not eat a juxtaposition of nutrients, they eat foods. It is therefore essential to consider the nutritional impact of whole foods and their role in a healthy and balanced diet instead of singling out nutrients such as salt, fat and sugar.

Looking at the overall nutritional value of dairy products compared to other categories, it becomes clear that a blanket solution on all food categories may jeopardise the ability to favour healthier food choices. A focus on reformulation programmes to lower sugar or fat contents could put products such as cheese or fruit yogurts at a disadvantage compared to sugar-free sodas and other heavily processed and nutrient-poor products.

Food manufacturers can adapt recipes for ready-meals or other confectionery products and work on a new balance of nutrients. However, for natural products such as cheese which only contain milk, rennet, salt and a starter culture, it is near impossible to play with ingredients<sup>11</sup>. At a time when children and teenagers are eating less dairy and end up missing out on a wide range of essential nutrients, it is crucial to ensure that nutrient-rich dairy products remain attractive options to them.

It is also important to understand the broader food matrix and its effect on health and diet. Understanding the food matrix means understanding what and how people eat, the links and the impact of food combinations and lifestyle on their health. For example, a regular milk drinker might tend to have cereals with milk while eating cheese is often linked to bread or fruit<sup>12</sup>.

Professor Legrand added that the overall issue remains overeating which can lead to excess consumption of specific nutrients. However, describing foods and nutrients as 'good' or 'bad' is not recommended<sup>13</sup>.

It is time to move away from nutrient-based recommendations towards food-based dietary guidelines and to recognise milk and dairy foods for their unique nutrient-richness and food matrix.

**The Dairy APPG recommends a cautious approach to reformulation programmes which should recognise the nutrient-density of milk and dairy products. It is essential to take into account the effect of whole foods and dietary patterns on health outcomes and avoid singling out individual nutrients.**

**The Dairy APPG recognises that the UK consumes too much 'free sugars' but strongly believes that any policy on sugar intake must make a clear differentiation between intrinsic sugars such as lactose and 'free sugars', as the former have not been shown to have negative effects on health.**

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<sup>10</sup> Public Health England & Food Standards Agency, National Diet and Nutrition Survey, <https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-results-from-years-1-to-4-combined-of-the-rolling-programme-for-2008-and-2009-to-2011-and-2012>

<sup>11</sup> Dr Judith Bryans, Dairy UK – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015

<sup>12</sup> Catherine Collins, St George's Hospital NHS Trust – Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

<sup>13</sup> Prof Philippe Legrand, INRA – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015



## 3 – Dairy in a Sustainable Diet

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### Sustainable diets

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In 2010, the Food and Agriculture Organisation of the United Nations defined a sustainable diet as a diet “with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resource.<sup>14</sup>”

The dairy industry is often singled out as a sector with a strong environmental impact. However, experts pointed out that, looking at its nutritional, environmental and economic impact, the dairy food group can be part of a sustainable diet.

A growing body of research suggests that focusing solely on a food category’s environmental impact without taking into account other aspects such as nutrient-density, affordability and food safety does not allow a comprehensive analysis. It is therefore essential to contextualise food groups by looking at their environmental impact alongside their role in terms of nutrition and health, their economic impact and more<sup>15</sup>.

According to this model, the dairy food group can indeed be part of a sustainable diet. In the Netherlands, a study on model diets showed little benefit to substituting dairy products in a diet<sup>16</sup>.

*“When all the relevant nutrients are taken into account and the dietary pattern is kept as close as possible to the current dietary pattern in the Netherlands, replacing dairy products with alternative foods delivers little or no environmental benefit. The relationship between nutritional value and the environmental indicators of greenhouse gas effect and land use for dairy products is virtually neutral: in other words, as a source of useful nutrients dairy products are just as environmentally efficient as the products used to replace them. Future guidelines for a more sustainable dietary pattern should take the different profiles of dairy products and meat into account.”*

The LiveWell for Life<sup>17</sup> report commissioned by the World Wildlife Fund also stated that dairy consumption levels in France, Spain and Sweden did not need to be lowered in order to have a healthy and sustainable diet which complies with nutritional recommendations, reduces GHG emissions by 25%, and provides a choice of foodstuffs as acceptable as possible.

### Environmental impact of dairy substitution

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The last few years have seen a small surge of plant-based alternatives to dairy, most of them boasting of a better nutritional, environmental and economic impact than dairy foods. However, upon closer examination, it seems that dairy fares better than its alternatives. Plant-based alternatives to dairy products also have environmental consequences that need to be linked to their nutrient-density and economic impact.

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<sup>14</sup> Food and Agriculture Organisation of the United Nations, Sustainable Diets & Biodiversity, <http://www.fao.org/docrep/016/i3004e/i3004e.pdf>

<sup>15</sup> Prof Toon van Hooijdonk, Wageningen University – Session 3, Sustainable diets – 2<sup>nd</sup> December 2015, [http://dairyuk.org/images/20151202\\_Dairy\\_APPG\\_Toon\\_van\\_Hooijdonk.pdf](http://dairyuk.org/images/20151202_Dairy_APPG_Toon_van_Hooijdonk.pdf)

<sup>16</sup> Blonk Consultants, Environmental Impact of Dairy Substitution, <http://www.optimeal.info/assets/uploads/docs/FactSheet%20OptiMeal%2010-2015%20Final.pdf>

<sup>17</sup> LiveWell for Life, World Wildlife Fund, <http://livewellforlife.eu/wp-content/uploads/2013/02/A-balance-of-healthy-and-sustainable-food-choices.pdf>



To say a reduction in dairy consumption equals a reduction in environmental impact is too simplistic as the environmental impact of food substitutes also needs to be taken into account. There is a real risk of replacing dairy with nutrient-poor products, high in calories and with an important environmental cost<sup>18</sup>.

From a nutritional standpoint, the majority of plant-based alternatives do not have the nutrient richness of dairy products. On average, conventional milks contain greater levels of protein, carbohydrate, fat, vitamins such as B2, B6, B12, C, D and A, niacin, folate, pantothenate, biotin, and minerals such as potassium, calcium, phosphorus, zinc, chloride and iodine.

Many types of soya drinks are generally sweetened with sucrose, glucose and fructose, which are all added or 'free sugars'. Conversely, cow's milk, only contains the natural sugar lactose.

	<i>Per 200ml glass (206g)</i>				
	<b>Cow's milk</b>	<b>Cow's milk</b>	<b>Cow's milk</b>	<b>Soya drink</b>	<b>Soya drink</b>
	Semi-skimmed	Skimmed	Whole	Sweetened, fortified	Unsweetened, fortified
<b>Energy (kcal)</b>	95	70	136	89	54
<b>Protein (g)</b>	7.2	7.2	6.8	6.4	4.9
<b>Carbohydrate (g)</b>	9.7	9.9	9.5	5.2	1
<b>of which sugars (g)</b>	9.7	9.9	9.5	4.5	0.4
<i>of which natural sugars (g)</i>	9.7	9.9	9.5	0	0
<i>of which added sugars (g)</i>	0	0	0	4.5	0.4
<b>Potassium (mg)</b>	321	334	319	245	152
<b>Calcium (mg)</b>	247	258	243	183	27
<b>Phosphorus (mg)</b>	194	198	192	183	99
<b>Iodine (mg)</b>	62	62	64	2	2

*McCance and Widdowson's 'composition of foods integrated dataset' on the nutrient content of the UK food supply<sup>19</sup>*

Due to the high nutrient density of milk, no reduction in environmental impact is obtained by exchanging dairy products in the diet with other food groups<sup>20</sup>.

From an environmental standpoint, a decrease in the consumption of dairy is likely to have an impact on land-use for cereal and plant-based foods, with their own environmental consequences. Additionally, simply changing from pasture to crop is not always feasible as some land can only be used for pasture in the UK.

The environmental cost of plant-based drinks is often misunderstood. For instance, 80% of the global almond production is located in the United States, including California, leading to high export volumes of almond drinks with their own environmental impact<sup>21</sup>. Soy and almonds require different climatic and soil conditions than those found in the UK. As a result, UK consumption of almond drinks has an impact on land use and resources use in other parts of the world, particularly in regions experiencing severe water stress such as California.

<sup>18</sup> Anna-Karin Modin-Edman, Arla Foods – Session 3, Sustainable diets – 2<sup>nd</sup> December 2015

<sup>19</sup> Public Health England, McCance and Widdowson's 'composition of foods integrated dataset' on the nutrient content of the UK food supply, <https://www.gov.uk/government/publications/composition-of-foods-integrated-dataset-cofid>

<sup>20</sup> Prof Toon van Hooijdonk, Wageningen University – Session 3, Sustainable diets – 2<sup>nd</sup> December 2015

<sup>21</sup> Almond Board, Global Usage, <http://www.almonds.co.uk/consumers/about-almonds/global-almond-usage>

It is also important to note that cows are effective converters of human-inedible resources into a nutrient dense food. In the Netherlands, only 6% of a cow's diet would be suitable in a human diet and cows upgrade inferior feed proteins to high quality food proteins.

## Fighting science with science

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A growing number of dietitians and registered nutritionists are becoming concerned by the flurry of misleading information about dairy alternatives. Evidence shows that a large proportion of health claims, sometimes circulated in the media as facts, often lack a robust evidence-base.

Experts are worried about the role of the media in circulating health and nutrition messages. Based on past and recent experience, the main issue remains the translation of science, or lack thereof. Media outlets often run stories that fail to grasp the complexity of scientific research and are likely to lead to scaremongering headlines. There is a real concern around misunderstood science; most consumers do not have the scientific background to understand research and rely on the media to translate complex information<sup>22</sup>.

Health professionals and academics have also questioned why conventional food and farming sectors such as dairy, meat or arable are expected to provide unequivocal scientific evidence when discussing their products when popular alternatives tend to avoid such scrutiny<sup>23</sup>.

It was suggested that consumers can be more attracted by 'lifestyle' or 'health experts' with few credible credentials or celebrity endorsements rather than traditional science. Another possible factor is the price of plant-based alternatives compared to conventional dairy products and the appeal of well-marketed expensive products.

A possible solution would be to focus on effective communications, translating science to lifestyle with strong take-home messages.

**The Dairy APPG recognises the dairy food group has strong environmental and nutritional credentials and should be promoted as such. The group also believes that all food sectors should have a robust evidence-base when discussing the benefits and strengths of their products.**

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<sup>22</sup> Dr Anne Mullen, The Dairy Council- Session 1, Dairy at every age – 3<sup>rd</sup> November 2015

<sup>23</sup> Prof Toon van Hooijdonk, Wageningen University – Anna-Karin Modin-Edman, Arla Foods – Session 3, Sustainable diets – 2<sup>nd</sup> December 2015

## 4 – Putting Dairy Back on the Daily Menu

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A 2012 survey by The Dairy Council and AHDB Dairy<sup>24</sup> showed that milk and dairy products could be found in 98% of households in the UK. Dairy has always been a staple of the British diet and its popularity stems not only from the diversity of products available but also consumer confidence in natural and wholesome British foods. The British dairy industry's standards of quality, food safety and hygiene are among the most robust in the world, thanks to a short and efficient supply chain.

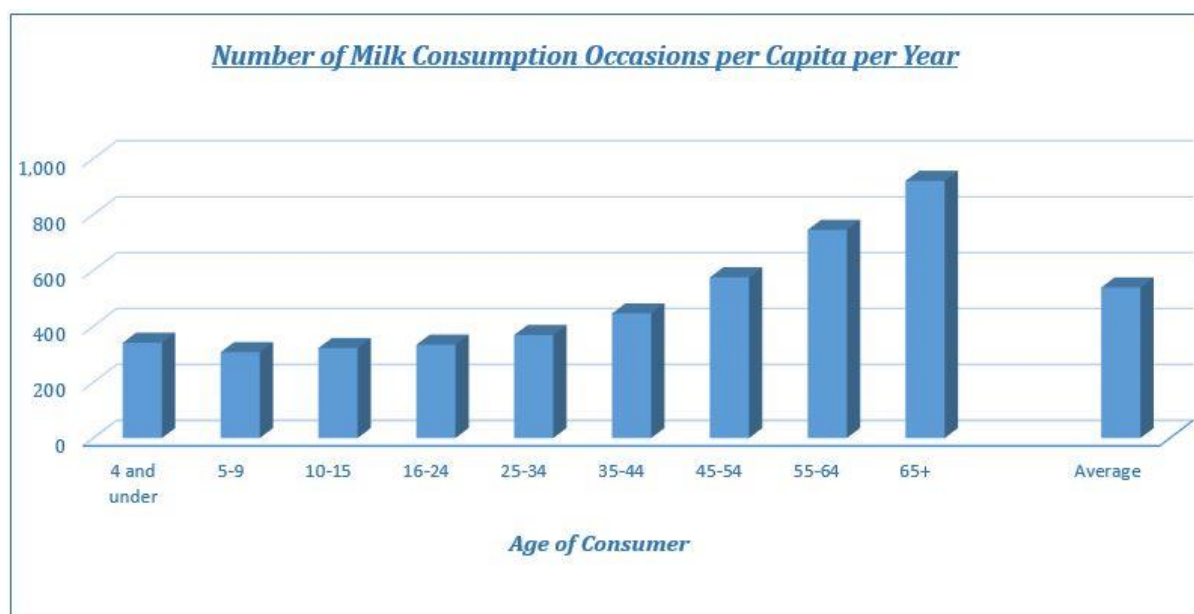
**The Dairy APPG recommends that Parliament and Government support industry efforts to promote British milk and dairy products across the country and that the nutritional value of dairy products to the UK diet should be recognised by the Department of Health.**

### Sustaining long-term demand for dairy

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Despite the fact that dairy foods are present in most of this country's fridges, dairy consumption in the UK is a concern for the future. Although consumers over 65 years of age remain loyal to milk and dairy products, younger generations do not always see dairy as being an essential part of their diet. Not only is this a real concern as young consumers end up missing out on essential nutrients, but it is also bound to weaken long-term demand for dairy and jeopardise the future of the industry.

Young girls and teenagers tend to stay away from dairy as they perceive it as being a 'fatty' food. Overall, demand for dairy is in significant decline.



*Kantar Worldpanel, Number of Milk Consumption Occasions per Capita per Year*

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<sup>24</sup> Formerly DairyCo. AHDB Dairy is a levy-funded, not-for-profit organisation working on behalf of Britain's dairy farmers.

As milk and dairy supply nutrients which are important to children's health and growth, encouraging dairy consumption from a young age should be a priority. The ever popular Nursery Milk Scheme provides 1/3 pint of milk per day to every child under 5 years of age attending childcare facilities in the UK. A recent review of the school food standards added several recommendations to include milk and dairy products to school menus. Many schools also have breakfast clubs with nutritious milk and dairy products on offer.

However, experts worry that "familiarity breeds contempt" and it is suggested that the dairy food group is not perceived as exciting enough by younger generations. It is therefore crucial to clear things up for consumers by taking the necessary steps to remind younger generations of the true benefits of dairy and to sustain long-term demand for dairy products.

**The Dairy APPG reiterates that encouraging dairy consumption from a young age should be a priority. Milk and dairy are paramount to children's health, growth and wellbeing; industry, Government and all stakeholders should work with schools to circulate positive messages about dairy consumption and educate about the benefits of dairy.**

**The Dairy APPG calls on the whole dairy industry to do more to highlight the benefits and desirability of dairy foods, particularly to younger generations.**

### 3-a-Day dairy programme

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Based on evidence received during the enquiry<sup>25</sup>, the Dairy All-Party Parliamentary Group wrote to the Department of Health to ask for the implementation of a 3-a-day programme for milk and dairy products to encourage the consumption of dairy products as part of a healthy and balanced diet and to educate consumers of the benefits of dairy.

The *eatwell plate*, part of the NHS Live Well framework, currently recommends a minimum amount of daily servings for one food group only, namely the '5 A DAY' programme for fruit and vegetables. Conversely, the same *eatwell plate* only recommends "some milk and dairy foods".

It is regrettable that official UK nutritional guidelines would not promote milk and dairy products as part of a healthy and balanced diet as actively as other countries do.

The evidence included data on successful 3-a-day programmes already in place in several countries including Canada<sup>26</sup>, the Netherlands<sup>27</sup> and the United States<sup>28</sup>.

As part of its Plan National Nutrition Santé (National Framework for Nutrition and Health), the French government launched a 3-a-day programme for dairy products<sup>29</sup>. These guidelines were developed based on recommendations by the Haut Conseil de Santé Publique (High Commission for Public Health). The programme is promoted through a wide range of educational material including leaflets, TV adverts and online resources developed by government bodies in conjunction with the dairy inter-branch organisation.

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<sup>25</sup> Dr Judith Bryans, Dairy UK – Session 2, Dairy and regulations – 25<sup>th</sup> November 2015

<sup>26</sup> Dairy Farmers of Canada, Get Enough, <https://www.dairygoodness.ca/getenough>

<sup>27</sup> Voedingscentrum, Melk en melkproducten, <http://www.voedingscentrum.nl/encyclopedie/melk-en-melkproducten.aspx>

<sup>28</sup> Dairy Management Inc., Wanted: Stronger Bones, [http://www.oregondairycouncil.org/resources/free\\_downloads/downloads/WantedStrongerBones.pdf](http://www.oregondairycouncil.org/resources/free_downloads/downloads/WantedStrongerBones.pdf)

<sup>29</sup> Institut national de prévention et d'éducation pour la santé, Plan National Nutrition Santé, <http://www.mangerbouger.fr/pnns/>

The Australian levy body, Dairy Australia, also developed a 3-Everyday programme as part of its industry promotion and marketing efforts<sup>30</sup>. With a primary focus on children and teenagers, the organisation developed material to present and promote the health and nutrition benefits of dairy at every age. This initiative is in line with the Guide to Healthy Eating published by the Australian government which recommends at least 2.5 dairy products per day for adults.

In 2012, the Irish Minister for Health launched new healthy eating guidelines drafted by the Food Safety Authority of Ireland (FSAI). The FSAI explained the new Food Pyramid was based on the “best science available” and highlighted major nutrient deficiencies per age group, including calcium deficiencies in children<sup>31</sup>. Therefore, the guidelines actively recommend three servings of milk and dairy products each day.

**The Dairy APPG believes the UK must put dairy back on the menu. The introduction of a national 3-a-Day programme for dairy would show the Government’s commitment to promoting a healthy lifestyle and balanced diet and bolstering consumption of our great dairy products, all the while supporting our resilient dairy industry.**

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<sup>30</sup>Dairy Australia, Industry Marketing and Promotion, <http://www.dairyaustralia.com.au/Levy-investment/Protecting-and-promoting-our-industry/Industry-marketing-and-promotion.aspx>

<sup>31</sup> Food Safety Authority of Ireland, Your Guide to Healthy Eating, [https://www.fsai.ie/news\\_centre/healthy\\_eating\\_guidelines\\_booklet/13062012.html](https://www.fsai.ie/news_centre/healthy_eating_guidelines_booklet/13062012.html)

## Recommendations

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1. The Dairy APPG believes milk and dairy products have a key role to play to help healthy ageing and tackle malnutrition in older people. Government should work with industry to ensure the right messages are circulated and spread the word on the benefits of dairy for the elderly.
2. The Dairy APPG believes milk and dairy products should be put front and centre as outstanding sports recovery products. This can be done by promoting the benefits and effectiveness of natural dairy products in sports recovery, exploring new ways to include and offer dairy products in gyms and leisure centres as well as encouraging innovation and new product development to target this market.
3. The Dairy APPG believes nutrient profiles would create an unnecessary burden on already stringent regulations and could be detrimental to natural, traditional foods, while leaving the door open for nutrient-poor foods. The group asks Members of the European Parliament to repeal nutrient profiles and asks the UK Government to support this call.
4. The Dairy APPG recommends a cautious approach to reformulation programmes which should recognise the nutrient-density of milk and dairy products. It is essential to take into account the effect of whole foods and dietary patterns on health outcomes and avoid singling out individual nutrients.
5. The Dairy APPG recognises that the UK consumes too much ‘free sugars’ but strongly believes that any policy on sugar intake must make a clear differentiation between intrinsic sugars such as lactose and ‘free sugars’, as the former have not been shown to have negative effects on health.
6. The Dairy APPG recognises the dairy food group has strong environmental and nutritional credentials and should be promoted as such. The group also believes that all food sectors should have a robust evidence-base when discussing the benefits and strengths of their products.
7. The Dairy APPG recommends that Parliament and Government support industry efforts to promote British milk and dairy products across the country and that the nutritional value of dairy products to the UK diet should be recognised by the Department of Health.
8. The Dairy APPG reiterates that encouraging dairy consumption from a young age should be a priority. Milk and dairy are paramount to children’s health, growth and wellbeing; industry, Government and all stakeholders should work with schools to circulate positive messages about dairy consumption and educate about the benefits of dairy.
9. The Dairy APPG calls on the whole dairy industry to do more to highlight the benefits and desirability of dairy foods, particularly to younger generations.
10. The Dairy APPG believes the UK must put dairy back on the menu. The introduction of a national 3-a-Day programme for dairy would show the Government’s commitment to promoting a healthy lifestyle and balanced diet and bolstering consumption of our great dairy products, all the while supporting our resilient dairy industry.

## Witnesses

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The Dairy All-Party Parliamentary Group would like to thank all witnesses who gave evidence as part of this enquiry.

Dairy at every age – 3<sup>rd</sup> November 2015

**Catherine Collins**, St George's Hospital NHS Trust

**Dr Anne Mullen**, The Dairy Council

**Dr Lewis James**, Loughborough University

Dairy and regulations – 25<sup>th</sup> November 2015

**Dr Judith Bryans**, Dairy UK

**Prof Philippe Legrand**, INRA

Sustainable diets & wholesome foods – 2<sup>nd</sup> December 2015

**Prof Toon van Hooijdonk**, Wageningen University

**Anna-Karin Modin-Edman**, Arla Foods



## Appendix 1 – Letter on a 3-a-Day Dairy Programme

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House of Commons  
London SW1A 0AA

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Rt. Hon Jeremy Hunt MP  
Secretary of State for Health  
Department of Health  
Richmond House  
79 Whitehall  
London SW1A 2NS

*Rh. Deanda 2015*

*Dear Jeremy,*

On behalf of the Dairy All-Party Parliamentary Group (APPG), I am writing to ask for the inclusion of a **3-a-day programme for the consumption of milk and dairy products** in nutritional guidelines in the UK.

The *eatwell plate*, part of the NHS Live Well framework, currently recommends a minimum amount of daily servings for one food group only, namely the '5 A DAY' programme for fruit and vegetables. Conversely, the same *eatwell plate* only recommends "some milk and dairy foods".

Dairy products are natural whole foods which provide many important nutrients at every stage of life. Milk, hard cheese and yogurt are the number one source of calcium in the UK diet. They also contain a wealth of other key nutrients such as protein, riboflavin, vitamin B12, iodine, phosphorus and potassium, all of which play an essential role in a healthy diet.

In addition to the well-known benefits of calcium for bones and teeth, it is important to remember that the nutrients found in dairy products have a significant impact on a large number of body functions including muscle mass, growth, energy release and the immune system. An increasing body of evidence also suggests that milk and dairy have a key role to play in sports recovery.

It is regrettable that official nutritional guidelines would not promote milk and dairy products as part of a healthy and balanced diet as actively as other countries do.

Therefore, the Dairy All-Party Parliamentary Group is asking for the implementation of a 3-a-day programme for milk and dairy products to encourage the consumption of dairy products as part of a healthy and balanced diet and to educate consumers of the benefits of dairy.

During the group's inquiry on the role of dairy in the public health debate, we received evidence on successful 3-a-day programmes already in place in several countries including Canada<sup>1</sup>, the Netherlands<sup>2</sup> and the United States<sup>3</sup>.

As part of its Plan National Nutrition Santé (National Framework for Nutrition and Health), the French government launched a 3-a-day programme for dairy products<sup>4</sup>. These guidelines were developed based on recommendations by the Haut Conseil de Santé Publique (High Commission for Public Health). The programme is promoted through a wide range of educational material

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including leaflets, TV adverts and online resources developed by government bodies in conjunction with the dairy inter-branch organisation.

The Australian levy body Dairy Australia also developed a 3-Everyday programme as part of its industry promotion and marketing efforts<sup>1</sup>. With a primary focus on children and teenagers, the organisation developed a series of material to present and promote the health and nutrition benefits of dairy at every age. This initiative is in line with the Guide to Healthy Eating published by the Australian government which recommends at least 2.5 dairy products per day for adults.

In 2012, the Irish Minister for Health launched new healthy eating guidelines drafted by the Food Safety Authority of Ireland (FSAI). The FSAI explained the new Food Pyramid was based on the "best science available" and highlighted major nutrient deficiencies per age group, including calcium deficiencies in children<sup>2</sup>. Therefore, the guidelines actively recommend three servings of milk and dairy products each day.


The UK dairy industry has been experiencing some difficult times for over a year. It is our responsibility as parliamentarians to do everything we can to support a sector which strives every day to produce nutritious and wholesome foods for consumers across the country.

Having seen positive evidence from several other countries, I believe that the introduction of a national 3-a-day programme would show the Government's commitment to promoting a healthy lifestyle and balanced diet and bolstering consumption of our great dairy products, all the while supporting our resilient dairy industry.

I would be happy to provide further evidence on this topic and I would welcome an opportunity to discuss this further with you.

Yours faithfully,

Heather Wheeler MP  
Chair of the Dairy APPG

Copies to: *Jeremy Hunt MP, Secretary of State for Health*   
*Jane Ellison MP, Parliamentary Under Secretary of State for Public Health*  
*Elizabeth Truss MP, Secretary of State for Environment, Food and Rural Affairs*  
*George Eustice MP, Minister of State for Farming, Food and the Marine Environment*

<sup>1</sup> <https://www.dairygoodness.ca/getenough>

<sup>2</sup> <http://www.voedingscentrum.nl/encyclopedie/melk-en-melkproductie.aspx>

<sup>3</sup> [http://www.oregondairyCouncil.org/resources/free\\_downloads/downloads/WantedStrongerBones.pdf](http://www.oregondairyCouncil.org/resources/free_downloads/downloads/WantedStrongerBones.pdf)

<sup>4</sup> <http://www.mangerbouger.fr/pnns/>

<sup>5</sup> <http://www.dairyaustralia.com.au/Levy-investment/Protecting-and-promoting-our-industry/Industry-marketing-and-promotion.aspx>

<sup>6</sup> [https://www.fsa.i/en/news\\_centre/healthy\\_eating\\_guidelines\\_booklet/13062012.html](https://www.fsa.i/en/news_centre/healthy_eating_guidelines_booklet/13062012.html)

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## Appendix 2 - McCance and Widdowson's 'composition of foods integrated dataset' on the nutrient content of the UK food supply

	<i>Per 200ml glass (206g)</i>				
	<b>Cow's milk</b>	<b>Cow's milk</b>	<b>Cow's milk</b>	<b>Soya drink</b>	<b>Soya drink</b>
	Semi-skimmed	Skimmed	Whole	Sweetened, fortified	Unsweetened, fortified
<b>Energy (kcal)</b>	95	70	136	89	54
<b>Protein (g)</b>	7.2	7.2	6.8	6.4	4.9
<b>Carbohydrate (g)</b>	9.7	9.9	9.5	5.2	1
<b>of which sugars (g)</b>	9.7	9.9	9.5	4.5	0.4
<i>of which lactose (g)</i>	9.7	9.9	9.5	0	0
<i>of which fructose (g)</i>	0	0	0	2.5	0
<i>of which glucose (g)</i>	0	0	0	0.6	0
<i>of which sucrose (g)</i>	0	0	0	1.4	0.4
<b>Fat (g)</b>	3.5	0.62	8	4.9	3.3
of which saturates	2.3	0.2	5.2	0.8	0.4
Monounsaturates	0.8	0.2	2	1	0.6
Polyunsaturates	Trace	Trace	0.2	2.9	2.3
trans fatty acids	0.3	Trace	0.2	N	Trace
<b>Dietary fibre (g)</b>	0	0	0	Trace	0.41
<b>Thiamin (mg)</b>	0.06	0.06	0.06	0.12	0.12
<b>Riboflavin (mg)</b>	0.5	0.45	0.48	0.1	0.1
<b>Vitamin B6 (mg)</b>	0.12	0.12	0.12	0.06	0.06
<b>Vitamin B12 (mg)</b>	1.9	1.6	1.9	0	0
<b>Folate (mg)</b>	19	19	16	19	29
<b>Vitamin C (mg)</b>	4	1	4	2	0
<b>Retinol (mg)</b>	39	2	62	0	Trace
<b>Carotene (mg)</b>	19	Trace	39	Trace	Trace
<b>Vitamin D (mg)</b>	Trace	Trace	Trace	0	0
<b>Vitamin E (mg)</b>	0.08	Trace	0.16	0.66	Trace
<b>Sodium (mg)</b>	89	91	89	115	66
<b>Potassium (mg)</b>	321	334	319	245	152
<b>Calcium (mg)</b>	247	258	243	183	27
<b>Magnesium (mg)</b>	23	23	23	37	31
<b>Phosphorus (mg)</b>	194	198	192	183	99
<b>Iron (mg)</b>	0.04	0.06	0.06	0.64	0.89
<b>Copper (mg)</b>	Trace	Trace	Trace	0.18	0.19
<b>Zinc (mg)</b>	0.8	1	0.8	0.6	0.6
<b>Selenium (mg)</b>	2	2	2	8	8
<b>Iodine (mg)</b>	62	62	64	2	2





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