



Dairy Foods – Helping to Nourish the World

IDF Factsheet – December 2012



Dairy foods supply a wide variety of the nutrients people need to stay healthy.

What are nutrient recommendations?

The human body needs a wide range of nutrients in varying amounts to grow and develop normally, and to stay healthy.

The amount of each of the nutrients a body needs is recommended by Government agencies responsible for health. These amounts will differ by age and gender. Local dairy organization or health authorities will provide recommendations for everyone.



One of the easiest ways for you to meet your requirements for energy and other nutrients is to eat a varied and balanced diet. It's important for all of us to get all the nutrients needed without consuming an excess of kilojoules/calories. Dietary messages can be confusing. Too often they focus on what **not** to eat rather than on what we **can** and **should** eat. That can make it hard for people to know what to eat and which nutrients are in the foods they choose to consume. This fact sheet will briefly explain how including dairy foods as part of a healthy and balanced diet is important in helping you to get the nutrients you need.

Dairy foods are nutrient-rich. Nutrient rich foods, like milk, cheese, yogurt, lean meat, poultry, seafood, eggs, beans, nuts, most colorful fruits and vegetables, and whole grains provide a lot of nutrients that the body needs, relative to the amount of energy they provide. The importance of dairy foods in the diet is reflected in the fact that they are included in dietary recommendations worldwide.

How including dairy in your diet can help you get the nutrients you need

Most people know that milk, cheese and yogurt contain calcium. In fact, dairy foods are a major source of calcium in the diet worldwide. But, dairy foods also provide high quality protein, carbohydrate, a range of essential fatty acids, a number of vitamins including vitamin A and B group vitamins such as vitamin B12 and riboflavin, and minerals such as potassium, magnesium, zinc and iodine - to name but a few. In other words, a portion of dairy product offers you a unique package of nutrients. All of these nutrients have important functions in your body. See them simply explained in the table on page 2.



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NUTRIENT	FUNCTION IN THE BODY
Protein	Proteins provide the body with fuel but more importantly is essential for growth and development. It is vital for bone health and for the structure and healthy working of muscle. It is also important for healthy skin and hair. Dairy proteins are quality proteins containing all the amino acids we need in good amounts.
Carbohydrates	Carbohydrates are the most common source of energy used by the body. The carbohydrate found in milk is a natural sugar called lactose. As well as providing energy, lactose has other functions in the body e.g. lactose plays a role in mineral absorption. Lactose is the sole carbohydrate for the newborn baby providing energy for the brain.
Fats	Fats are essential nutrients. Fat plays a vital role in maintaining healthy skin and hair, insulating body organs against shock, maintaining body temperature, and promoting healthy cell function Fat is a source of fuel for the body and acts as an energy store. Some vitamins – vitamins A, D, E and K – are fat soluble and can only be absorbed, transported and used in conjunction with fat. Dairy fat provides around 400 different fatty acids to the diet, many of which have important roles in the body.
Vitamin A	Vitamin A is important for strengthening the immune system, normal vision, keeping skin and the linings of some parts of the body healthy, and reproduction. Pregnant women should take care not to consume too much vitamin A.
Vitamin B12	Vitamin B12 is important for making red blood cells, keeping the nervous system healthy, releasing energy from the food we eat and processing folic acid. A lack of vitamin B12 could lead to anaemia. It is important to note that dairy foods are a major source of this nutrient in the diet.
Folate	Folic acid, known as folate in its natural form, has several important functions. Folate is a B vitamin and it works with vitamin B12 to form healthy red blood cells, and reduce the risk of defects such as spina bifida in unborn babies. A lack of folate may lead to folate-deficiency anaemia
Thiamin	Thiamin is also a member of the B group of vitamins and is important for keeping nerves and muscle tissue healthy, and for helping to release energy from the food we eat.
Niacin	Niacin is important for releasing energy from the foods we eat and for keeping our nervous system and digestive systems healthy. Niacin is a member of the B-group of vitamins.
Riboflavin	Riboflavin is a B group vitamin which is important for keeping skin, eyes and the nervous system healthy. Riboflavin helps convert folate into folic acid and so helps the formation of red blood cells.
Calcium	Calcium's primary role in the body is in the structure of bones and teeth. Calcium is also important in nerve and muscle function and plays a role in the digestive process
Iodine	Iodine is an essential component of thyroid hormones. These hormones help to keep cells and metabolic processes healthy
Magnesium	Magnesium helps release energy from the food we eat and plays a role in bone and dental health
Phosphorus	Phosphorus helps to build strong teeth and bones and has a role in how the body stores and uses energy
Potassium	Potassium has many important functions, including controlling the balance of fluids in the body and helping to regulate blood pressure and muscle function
Zinc	Zinc is important in making new cells and enzymes, processing carbohydrate and fat, and wound healing



Milk is also a great source of water, so is a good beverage choice for hydration. In addition, the mineral salts in milk, known as electrolytes, make milk a good choice for rehydration after exercise. Evidence shows that the carbohydrates and proteins in milk may also help with recovery after exercise.

Are people meeting their nutrition needs?

Dietary surveys carried out in many countries show clearly that many people do not meet their requirements for a whole variety of nutrients. Some nutrients are more of a concern than others and which are problematic varies by country. Globally there are problems with people not meeting their requirements for calcium, riboflavin and vitamin D. Children, teenagers and young adult women in particular are more at risk of being deficient in these nutrients.

Can you have a nutritionally adequate diet without dairy foods?

A relatively small number of people cannot consume dairy foods because they are allergic to dairy protein or intolerant to lactose. Others could consume dairy foods but choose to avoid them.

Researchers who have analyzed the nutritional adequacy of the diets of people who avoid dairy foods have found that, although it is possible to achieve a nutritionally adequate plant-based diet, it can be very difficult. And it is particularly problematic for children. For people who avoid dairy products, constructing a non-dairy diet requires more nutritional artificially knowledge than most people have, so they are at greater risk of missing out on essential nutrients. For example, vegans often require artificially fortified products or supplements to avoid vitamin B12 deficiency.

People with a medically diagnosed dairy protein allergy will usually have the assistance of a qualified dietician to advise on which foods to eat, how much and on appropriate supplementation so that they do not miss out on the nutrients that dairy foods provide. However, most people who choose to avoid dairy do not have that level of help or support and, as a result, their diets risk being nutrient poor.

A large American study has found that people who drink plain or flavoured milk have greater intakes of calcium, magnesium, potassium, phosphorus and vitamin A than non milk drinkers. Studies have also shown that when even a small amount of animal products such as dairy foods are added into a plant-based diet, the nutrient adequacy of the diet is substantially improved.





Are people meeting their recommended intakes of dairy foods? *And finally*

The nutrient rich package of dairy foods has placed it at the core of dietary recommendations around the world. Unfortunately, in most countries where there is specific guidance on the amount of dairy foods to consume, people do not meet these recommendations. The results of a number of national dietary surveys show that a high proportion of those people who do not meet their recommended dairy food intakes also do not meet their recommended intakes for vital nutrients. Even small increases in dairy intake can have a positive impact on your intake of nutrients like calcium, protein quality, and a variety of vitamins and minerals.

Dairy and the environment

Dairy foods are a good choice from an environmental perspective, offering high nutritional value for their cost of production. Although all food production comes at an environmental cost, the good news is that, globally, the dairy industry is working hard to make sure that the foods it produces are as kind to the environment as possible as well as being nutritious and affordable. This means dairy foods can easily be part of an environmentally friendly diet.

If you would like to find out more about all the ways the dairy industry is working to protect the environment visit www.dairy-sustainability-initiative.org

Although the nutrients our bodies need to stay healthy are well recognized and recommended universally, the amounts of these nutrients recommended are not the same in all countries. For example, some countries recommend higher intakes of calcium than others. For the person trying to meet their recommended requirements, that can make things a little confusing. Most countries have dairy organizations that can tell you about the nutrient recommendations set by your specific government health agency. They can also tell you what percentage of these recommendations you can get from eating dairy foods.

To find a link to a dairy organization in your country that can help you, log on to www.idfdairynutrition.org, click on the Dairy and You button and then on Dairy Nutrition Network and choose your country.



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