Nutrient-Rich Dairy Foods and You

IDF Factsheet – December 2012

Dairy products such as milk, yogurt and cheese are nutrient rich foods which provide you with a package of nutrients to help your body stay healthy.

What are nutrient-rich foods?

Whatever our age we all need a variety of nutrients to keep our bodies fuelled and healthy. Making nutrient rich foods the basis of your diet will help to keep you healthy.

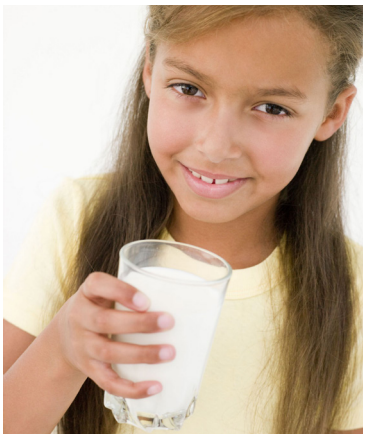
Nutrient-rich foods, like milk, cheese, yogurt, lean meat, poultry, seafood, eggs, beans, nuts, most colorful fruits and vegetables, and whole grains provide a lot of nutrients that the body needs, relative to the amount of energy they supply.

Maintaining a healthy body weight is important. Being overweight or obese can increase the risk of developing a number of diseases. So it's important for all of us to get the nutrients we need without an excess of kilojoules/kilocalories.

What nutrients do dairy foods give you?

Nutrient-rich dairy foods contribute a wide variety of essential nutrients to our diets. Their importance in the diet is recognized by their inclusion in dietary recommendations worldwide. Indeed, many people would find it hard to meet their nutrient requirements without dairy foods.

Most people know that milk, cheese and yogurt contain calcium. In fact, dairy foods are a major source of calcium in the diet worldwide. They also provide high quality protein, carbohydrate, a range of 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 offers you a unique package of nutrients. All of these nutrients have important functions in the body. See them simply explained in the table on page 2.



NUTRIENT	FUNCTION IN THE BODY
Protein	Protein provides the body with fuel but more importantly is needed 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 protein is a good quality protein containing all the amino acids we need in good amounts.
Carbohydrate	Carbohydrate is 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 and its derivative have 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.
Fat	Fat is an essential nutrient. 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 and keeping the nervous system healthy, releasing energy from the food we eat and processing folic acid. A lack of vitamin B12 could lead to vitamin B12 deficiency 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 reduces the risk of defects such as spina bifida in unborn babies. A lack of folate could 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 helping to release 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. It's also involved in energy production. Riboflavin helps convert folate into folic acid and is thereby helping with 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 plays 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, helps the body process carbohydrate and fat, and with wound healing

As well as naturally containing a large number of nutrients, dairy foods are easily fortified with extra vitamins. Dairy foods in some countries are fortified with vitamin A. In some countries all milk is fortified with vitamin D while in other countries vitamin D fortified products are available for you to choose alongside standard milks. Consuming dairy foods fortified with vitamin D helps many people meet their needs for this important nutrient. Although vitamin D has many roles in the body, one of the best known is its role in bone health. For example, our bodies need vitamin D to help them absorb calcium from the foods we eat. A lack of vitamin D can lead to bone deformities including rickets in children and osteomalacia in adults.

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

Nutrient-rich dairy products and your health

Healthy eating behaviours established in childhood carry through to healthy eating as an adult. A number of studies show that when people consume dairy foods, overall they have better quality diets. If you have children, as well as making sure they have the recommended amount of dairy products in their healthy and balanced diets, it is important that you are a role model for them in terms of the foods you choose to eat.

Recent research studies suggest that consuming dairy foods is associated with a reduced risk of some diseases and conditions including heart disease, hypertension (high blood pressure), some cancers and type 2 diabetes.

Weight Management

Studies have shown that adults who went on weight loss diets that include plenty of dairy foods lost more weight and more body fat than those who ate weight loss diets that were low in dairy foods. A large study in children and teenagers showed that children who ate more than two servings of dairy every day had less fat gain in childhood and less fat around the abdomen as teenagers than those who ate fewer than two dairy servings a day.

Hypertension

There is also evidence, from the Dietary Approaches to Stop Hypertension (DASH) dietary trials and similar studies, that consuming three servings of dairy foods a day alongside five servings of fruits and vegetables can help lower blood pressure.

The potentially beneficial effect of dairy in terms of blood pressure regulation is partly due to the nutrients it contains. For example, dairy is a source of calcium and potassium which are very important in maintaining normal blood pressure, but dairy also contains biologically active compounds which have been shown by to help lower blood pressure. Maintaining normal blood pressure is important as high blood pressure increases the risk of stroke and heart disease.

Although this short factsheet cannot cover all aspects of dairy and health, the IDF has lots of resources available which will tell you more. Why not log on to www.idfdairynutrition.org and browse the many factsheets and resources from around the world in the Dairy and You section which has information on what nutrient-rich dairy foods can do for you.

Dairy and the environment

Dairy foods are a good choice from an environmental perspective, offering high nutritional value for their environmental 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'd like to find out more about all the ways the dairy industry is working to protect the environment visit www.dairy-sustainability-initiative.org

And finally

When making food choices each day, whether it's for yourself or your family, remember to include some nutritious dairy foods (three a day is the most widely recommended amount). Whatever your taste preference or other needs may be there is a dairy food for almost everyone. If you've been told to watch your fat or calorie intake there is no need to avoid dairy – there are plenty of dairy foods for you to choose from, ranging from virtually fat free to low-fat to regular fat which will help you get many of the important nutrients you need as part of a healthy, balanced and sustainable diet.

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