

Why milk products?

Everything you always wanted to know



Numerous
health benefits



Numerous health benefits - Nutrients and their roles

Calcium and so much more

The health benefits of milk products aren't limited to healthy bones and teeth. They are so important for health that they are one of the four main food groups in *Canada's Food Guide*.

Unique nutritional value

Milk products contain up to 16 nutrients which are essential for a balanced diet and to maintain good health:

- Protein
- Vitamin A
- Vitamin B12
- Vitamin B6
- Riboflavin
- Niacin
- Thiamine
- Pantothenic acid
- Folate
- Vitamin D
- Calcium
- Magnesium
- Phosphorus
- Potassium
- Zinc
- Selenium

The role of essential nutrients

The nutrients in milk products provide numerous health benefits. They aid normal growth and keep the body functioning properly while helping prevent certain diseases. Here's an overview of the role played by each one of these essential nutrients.

Protein: helps build and repair body tissues, including bones, and builds antibodies which fight infection.

Vitamin A: aids bone and tooth development. Also aids in the maintenance of night vision and healthy skin

Vitamin B12: aids in red blood cell formation.

Vitamin B6: factor in energy metabolism and tissue formation, including bones.

Riboflavin: factor in energy metabolism and tissue formation.

Niacin: aids in normal growth. Factor in energy metabolism and tissue formation, including bones.

Thiamine: releases energy from carbohydrate and aids normal growth.

Pantothenic acid: factor in energy metabolism and tissue formation, including bones.

Folate: aids in red blood cell formation.

Vitamin D: enhances calcium and phosphorus absorption, on which strong bones and teeth depend.

Calcium: aids in the formation and maintenance of strong bones and healthy teeth.

Magnesium: factor in bone and teeth health, energy metabolism and tissue formation.

Phosphorus: factor in the formation and maintenance of strong bones and healthy teeth.

Potassium: aids in the correct functioning of nerves and muscles.

Zinc: factor in tissue formation, including bones, and energy metabolism.

Selenium: aids in the correct functioning of the immune system due to its antioxidant effect.

Numerous health benefits - Health benefits

Good for your health

Milk, yogurt and cheese promote good overall health. That's why it's important to consume milk products every day and at every stage of life, from infancy throughout adulthood. Several studies have also shown that milk products could contribute to the prevention of numerous diseases or conditions such as hypertension, obesity, colon cancer and osteoporosis.

Hypertension

Hypertension is the main risk factor for mortality in Canada, with over five million Canadians affected by this disease.¹ According to scientific studies, consuming milk products could have significant benefits for lowering blood pressure. To prevent and treat hypertension, the Canadian Hypertension Society and the American Heart Association recommend a diet rich in milk products, as well as in fruits and vegetables.^{2,3}

Researchers believe that the beneficial effect of milk products could be due to their calcium, magnesium and potassium content, among other factors.

Sources:

1. Canadian Hypertension Society.
2. Khan NA et al. The 2008 Canadian Hypertension Education Program recommendations for the management of hypertension: part 2-therapy. *Can J Cardiol* 2008;24(6):465-475.
3. Mosca L et al. Evidence-based guidelines for cardiovascular disease prevention in women: 2007 update. *Circulation* 2007;115:1481-1501.

Healthy weight

Around thirty studies suggest that a diet rich in calcium or in milk products could make it easier to maintain a healthy weight or lose excess weight. In fact, it appears that calcium could make the body use fat as an energy source and reduce fat storage in cells. Also, milk products could achieve this more efficiently than calcium supplements, which suggests that other milk ingredients, such as protein, could play an important role.

So, consuming the recommended servings of milk products every day could help you manage your weight in a healthy way.

Colon cancer

Numerous scientific studies suggest that consuming milk and milk products could lower the risk of colon cancer. According to a report published by the World Cancer Research Fund and the American Institute for Cancer Research on the role played by diet and lifestyle in cancer prevention, there is enough data to conclude that milk probably helps prevent colorectal cancer.¹

Further studies are still necessary to determine the precise mechanisms by which milk products and some of their components could reduce the risk of colon cancer. Researchers believe that the nutrients associated with this protective effect include calcium, vitamin D and conjugated linoleic acid, the latter of which is found in milk fat.

Sources:

1. World Cancer Research Fund and American Institute for Cancer Research. *Food, nutrition, physical activity, and the prevention of cancer: a global perspective*. Washington DC: AICR, 2007.

Osteoporosis

Vital for healthy bones, the calcium in milk products also contributes to the prevention of osteoporosis. This disease is characterized by low bone mass and the deterioration of bone tissue. As the body's bones become fragile, they also become more likely to be fractured. Bad falls often cause broken hips and wrists, and even fractures of the spine. Osteoporosis can severely reduce one's quality of life, and people who are unfortunate enough to suffer from the disease can even lose their autonomy.

The best way to prevent osteoporosis is to build up and maintain good bone mass, starting in childhood. Numerous studies have shown that a diet high in calcium increases bone mass during growth, slows bone loss linked to aging, and thereby reduces the risk of fractures.¹

Milk products are a reliable source of calcium and also contain other nutrients that contribute to bone health (for example, phosphorus and zinc). In addition, the vitamin D added to milk improves the absorption of calcium and phosphorus, which are crucial for strong bones.

Do you know about the bioavailability of calcium?

Simply put, it is the amount of calcium in a food that is absorbed by the body. Some foods can contain a high level of calcium, but it is sometimes less well absorbed. For example, to obtain the same amount of calcium contained in one serving of milk (250 mL), you would have to eat 15.3 x 125 mL servings of spinach! However these delicious leafy greens are packed with many other vitamins and minerals that are important for a balanced diet.

Furthermore, according to some studies, the calcium present in milk products could be more beneficial for bone health, and likely even for the prevention of osteoporosis, than calcium supplements.²

Sources:

1. Heaney RP. Calcium, dairy products and osteoporosis. *J Am Coll Nutr* 2000;19(2):835-995.
2. Heaney RP. Dairy and Bone Health. *J Am Coll Nutr*, Vol. 28, No. 1, 825-905 (2009).

Milk



Milk - Nutritious

Milk – a beverage of choice!

Naturally refreshing, milk contains 16 essential nutrients that contribute to the quality of the food we eat every day. White, chocolate or flavoured, milk plays an important role in a balanced diet.

Vitamin D: an added bonus for milk

Milk is fortified with vitamin D. However, some brands of yogurt made with fortified milk can also provide vitamin D. This vitamin improves the absorption of calcium and phosphorous, two of the important nutrients found in milk that promote strong bones and healthy teeth.

For healthy, strong bones

Vitamin D, phosphorous, magnesium and zinc, plus of course calcium, all contribute to building bones and teeth. These nutrients found in milk also help bones and teeth stay healthy.

Healthy bones mean strong bones. And strong bones can better withstand the threat of osteoporosis, a disease that is characterized by low bone mass, which increases the risk of fractures.

Did you know that, starting in their twenties, a person's bone mass reduces progressively from 0.5% to 1.5% each year until the age of 50?¹ That's why it's important to limit bone loss by consuming milk and milk products throughout one's life.

Sources:

1. Jasminka Z. Ilich, Kerstetter J. Nutrition in Bone Health Revisited: A Story Beyond Calcium. *J Am Coll Nutr* 2000. 19 (6): 715-737.

Good for your health... and your weight

The health benefits of milk and other milk products are widely known. But, according to many scientific studies,¹⁻³ milk and other milk products could also play an important role in shedding excess pounds and maintaining a healthy weight.

It appears that calcium, especially when found in milk products, could act on the body to make it use fat as an energy source, which then would then reduce its storage of body fat.⁴

Other studies show that weight loss diets containing enough milk products promote increased weight loss. This is particularly true for people who usually consume few milk products.¹

For an easy and enjoyable way to manage your weight, reach for milk products. Eating healthy never tasted so good!

Sources:

1. Major GC et al. Recent developments in calcium-related obesity research. *Obes Rev* 2008; doi: 10.1111/j.1467-789x.2007.0045.x.
2. Caan B et al. Calcium plus vitamin D supplementation and the risk of postmenopausal weight gain. *Arch Intern Med* 2007;167:893-902.
3. Haub MD et al. Calcium-fortified beverage supplementation on body composition in postmenopausal women. *J Nutr* 2005; 4:21-268.
4. Zemel MB. Role of calcium and dairy products in energy partitioning and weight management. *Am J Clin Nutr* 2004;79(Suppl):907S-912S.

Where does chocolate milk fit in?

In addition to having a high water content, chocolate milk also provides a combination of carbohydrates and protein that maximize recovery and rehydration following exercise.¹ The sodium and potassium found in milk also help replenish the loss of electrolytes that result from sweating while exercising.

Chocolate milk would be a better recovery beverage following exercise than commercial sports drinks.² It is therefore recommended to drink chocolate milk 30 minutes after intense physical activity to replenish energy reserves and water.

As for its sugar content, remember that, in general, chocolate milk contains about half as much sugar as soft drinks or other sweetened drinks. In reality, it contains no more sugar than the same quantity of unsweetened apple juice.

Sources:

1. Hartman JW et al. Consumption of fat-free fluid milk after resistance exercise promotes greater lean mass accretion than does consumption of soy or carbohydrate in young, novice, male weightlifters. *Am J Clin Nutr* 2007;86:373-381.
7. Shirreffs SM et al. Milk as an effective post-exercise rehydration drink. *Br J Nutr* 2007;98:173-180.

Milk - Versatile

Milk: Good to go anywhere, anytime

It's hard to imagine anything handier than milk. It's ready to drink whenever you're ready to drink it! White, chocolate or flavoured, milk is great by the glass or added to your favourite cereals.

Milk also fits easily into a whole host of tasty dishes that are simple to make. Give your taste buds a treat with a huge range of smoothies, soups, flans, cakes, pancakes or pasta sauces that can be made with milk. Whether hot, cold, salty or sweet, a meal with milk is always delicious.

Milk goes where you go

At home, at school, at the office, on a picnic, after a workout... Where ever you are and whatever you're doing, there's always room for milk! For breakfast, aside from the traditional bowl of cereal with milk, you can prepare oatmeal using milk instead of water. And why not swap your regular coffee for a nice latté? With more milk, your coffee will be that much creamier.

At snack-time, try a pudding-shake! Take a 1 cup (250 ml) size food container with a tight fitting lid, pour in 1/2 cup (125 ml) of milk and add 3 tbsp (45 ml) of your favourite powdered instant pudding. Cover and shake until thick. Let stand a few minutes, and then let the kids dig in!

A fruit smoothie made with milk is a great way to round off a lunch, and

nothing goes better with a homemade muffin than a small carton of milk. At bedtime, settle down with a nice mug of hot milk with cinnamon or honey, or infused with herbal tea.

Milk's possibilities are endless! Have fun discovering what you can do with milk and share your new recipes with those around you.

Milk - Fit for every day

Milk every day

Because of its nutrients, milk is essential for overall health. But 83% of girls and 61% of boys in Canada between the ages of 10 to 16, a key growth period, get less than the minimum number of recommended daily servings of milk and milk products.¹ Canadians over 30 don't fare much better, as two-thirds of them are also missing out on the two recommended daily servings.¹

Source:

1. Canadian Community Health Survey – Nutrition. Statistics Canada, 2006.

Milk and bioavailability

A nutrient's bioavailability corresponds to the percentage of the nutrient that is assimilated by the body after it is ingested. Milk contains a great deal of calcium that is well absorbed by the body, and therefore has excellent bioavailability. That's why milk and milk products are considered to be the best sources of calcium.

To find out if a food provides a significant amount of calcium, it's not enough to focus only on the amount of calcium it contains. The bioavailability of the calcium in a food should also be taken into account, as this indicates how much of it will be absorbed by the body.

For example, to get the same amount of calcium contained in a glass of milk (250 mL), you would have to eat 5 x 125 mL servings of broccoli or 15 x 125 mL servings of spinach!

A drink that hydrates naturally

Every day, the human body needs to be well hydrated to work properly. Of course, water is an excellent way to stay hydrated. But did you know that milk is 85% water²?

In addition, with its 16 essential nutrients, milk is a nourishing drink that fills a gap while also hydrating the body. That's why milk also helps maintain a healthy body weight. Drinking milk to quench your thirst and feed your hunger is a fantastic idea!

Yogurt



Yogurt - Nutritious

Yogurt is worth getting to know

With more than 10 essential nutrients, including calcium, phosphorus and vitamins B1, B2 and B12, yogurt is excellent for your health. For instance, it helps to provide nearly 40% of our daily recommended intake of vitamin B12. This fact alone makes yogurt a particularly interesting choice for the elderly, who are sometimes more prone to having a vitamin B12 deficiency.*

Currently, vitamin D is added only to milk. However, some brands of yogurt are made from fortified milk and, as a result, also provide vitamin D.

* These data are based on a fruit yogurt (2 to 4% fat) and come from the Canadian Nutrient File, Health Canada, version 2007b.

Yogurt - Versatile

Creamy goodness, any way you look at it

In single servings or family-sized tubs, for drinking or for eating, yogurt is one of the rare foods that can be consumed without needing to be prepared. And as it brings out the taste of fruits, spices, grains and other ingredients, you can use it in so many different ways to create so many great tastes.

You can add yogurt to soups and stews to give them a creamier taste. And why not create a delicious raw veggie dip using yogurt with pesto, mustard or curry?

As a snack or dessert, you can also add fresh fruits, raisins, nuts, grains, cinnamon, apple puree or a combination of all of the above to your yogurt to give it a personal twist.

Yogurt drinks are super handy. Take them anywhere, and you'll always have a thirst-quenching drink to fill the gap when you feel like having a snack!



An ingredient to discover

There are loads of delicious ways to use both plain and fruit yogurt in meals and snacks.

How about adding some yogurt to your pancake mix or using it as a topping for those same pancakes or French toast? Or prepare fruit smoothies by adding yogurt to fruits or using a milk-yogurt mix?

Yogurt is a key ingredient in numerous tasty recipes designed to tempt your taste buds. Take a look, then use these recipe ideas as a starting point for creating your own culinary masterpieces!

Yogurt - Fit for every day

Yogurt every day

Canadians consumed 5.4 litres of yogurt in 2008, which is more than double what they consumed a decade ago. The consumption of yogurt has increased gradually over the years, from 0.03 litres in 1960 to 5.4 litres in 2008.¹ Even so, yogurt is only consumed at a rate of about 15 mL a day, or 1 tablespoon per person.¹ Yogurt is a nourishing food that deserves to be discovered and, more importantly, eaten!

Source:

1. Food statistics – 2008. Statistics Canada.

Cheese



Cheese - Nutritious

Amazingly tasty and full of essential nutrients

As with all other milk products, cheese is a source of essential nutrients. Cheddar, Mozzarella and Swiss cheeses contain as many as 11, including calcium, vitamin A, niacin and vitamin B12.

Normal growth, maintenance of night vision, red blood cell formation, converting foods into energy... the list of benefits associated with the nutrients found in cheese goes on and on.

Cheese - Versatile

Cheese, please!

Make room for cheese morning, noon and night, as a meal or for a snack. All it takes is some cheese in your fridge and a little imagination.

Cheese for breakfast? Have you ever tried a slice of walnut bread topped with Emmental and jam? Delicious! Or how about French bread topped with Brie and jam, then grilled in the oven for a minute or two?

Cheese has the advantage of fitting easily in a lunch box. It's great grated or cubed in a salad or as a cheese stick to nibble on for snack.

Round off a delicious meal with a piece of cheese together with a glass of wine or a fruit. Pear, apple and melon are a perfect match for any cheese!

Variations on a theme

Besides being tasty and nutritious, cheese is incredibly handy because you can eat it at home or on the go. Highly versatile, cheese can turn any dish into an 'au gratin', enhance a salad, garnish a sandwich or pasta, be paired up with fruit, raw vegetables or crackers ...

Since there are so many kinds of cheese (soft or firm, with bloomy or washed rinds, etc.) you can easily vary the textures, tastes and uses in your

everyday cooking.

Take a look at the recipes below to expand your repertoire and discover new combinations of cheese-based flavours.

Cheese - Fit for every day

Cheese, every day

Even though Canadians eat more cheese than in the past (10.08 kg per person in 2008 compared to only 2.66 kg per person in 1960), they still only eat an average of 28 g per person every day.¹ This only represents a little over half of a serving of cheese, which is 50 g (1 ½ oz).

Sources:

1. Food statistics – 2008. Statistics Canada.

The fat you need

In order to assimilate vitamins A, D, E and K, the human body needs a certain amount of fat, since these vitamins are fat-soluble. A healthy diet must therefore include a reasonable quantity of good fat in order to ensure a well functioning metabolism.

The goal is not, therefore, to eliminate all fatty foods from your diet, but rather to emphasize those that have an interesting nutritional value due to the essential nutrients they contain. That's why it's recommended that you eliminate or reduce your intake of less nutritious fatty foods, such as cakes.

In addition, according to recent studies, milk products only account for 18% of the daily fat intake in the diet of Canadians.¹

Sources:

1. Agriculture and Agri-Food Canada. Statistics of the Canadian Dairy Industry (PDF). 2007.

Sodium and cheese

Food contains a certain amount of sodium, and the quantity varies from one product to another. However, a serving of Swiss cheese (50 g) contains almost two times less sodium than a regular slice of whole wheat bread, and a serving of Mozzarella contains nearly the same amount as that same slice of bread.

Facts & fallacies



Facts & fallacies - Hormones and antibiotics

Hormones and antibiotics

100% Canadian milk is one of the safest and most tested foods in the country. In fact, before reaching the supermarket, milk undergoes rigorous testing to confirm that it is antibiotic-free and of the highest quality. This means that you can enjoy delicious milk products, worry-free!

Growth hormones are forbidden!

In Canada, it is strictly forbidden to inject cows with growth hormones to increase milk production. To maximize milk production, producers therefore use tried and tested methods that do not require the use of hormones. They also make sure that their cows are healthy and well-nourished.

Milk and antibiotics don't mix

The use of antibiotics in the dairy industry is strictly regulated. A dairy cow is only given antibiotics if it is sick, and even then only when they are prescribed by a vet. The cow is isolated from the herd until screening tests show that its milk contains no residue of antibiotics.

Facts & fallacies - Fat

Fat and milk products

Milk, cheese, yogurt and even frozen milk desserts only account for about 18% of the fat intake in the diet of the average Canadian.¹

Source:

1. Agriculture and Agri-Food Canada. Statistics of the Canadian Dairy Industry (PDF). 2007.

Nutrients you can count on

Cheese is a very nutritious food. Cheddar, Mozzarella and Swiss cheeses



contain more than eight essential nutrients, including calcium, vitamin A, niacin and vitamin B12. Plus, cheese helps satiate your hunger!

Fat doesn't mean bad

Eating healthy doesn't mean eliminating all sources of fat from your diet. On the contrary, the body needs a certain amount of fat to take advantage of the benefits of vitamins A, D, E and K. These vitamins are fat-soluble, so they need fat to be absorbed by the body.

Where fat is concerned, moderation is key

You don't need to eliminate milk products from your diet because of their fat content. Think of all the essential nutrients they contain, and instead cut down on fatty foods that are less nutritious.

And why deprive yourself of ice cream or cream cheese? They are also members of the extended family of milk products despite their higher fat content. You can still treat yourself, but in moderation.

Facts & fallacies - Sodium

Cheese isn't so salty after all!

Food contains a certain amount of sodium, and the quantity varies from one product to another. As a general rule, pre-packaged and ready-to-serve foods, plus those served in restaurants, are the sodium champs. For example, a small bowl (250 mL) of canned chicken noodle soup provides 51% of the recommended daily intake of sodium all by itself.*

Did you know that a 50 g (1 ½ oz) serving of Swiss cheese contains almost two times less sodium than a regular slice of whole wheat bread?

Shocking, right? The sodium content of some cheeses can increase during manufacturing, which is the case for fondue cheese or Feta. If sodium is something you're concerned about, choose less processed cheeses such as Cheddar, Mozzarella or Swiss.

* Health Canada recommends that adults limit their salt intake to 2,300 mg per day.

Facts & fallacies - Sugar

What about sugar in milk products?

To find out about the nutritional value of a food, it's important to look at the big picture rather than just focus on one aspect, such as its sugar content. First off, it's worth knowing that regular milk products by nature contain sugar, which is called lactose.

In addition, the sugar that is added to chocolate milk and yogurt doesn't turn them into bad foods. Each one contains numerous essential nutrients. For example, chocolate milk has the same 16 nutrients as white milk and doesn't contain any more sugar than the same quantity of unsweetened apple juice.