

what's true?  
what's not?

*Get the real story about milk products.*



*“I hear so many conflicting things,  
it’s hard to know what to believe.”*

**Confused about milk products?** With so many different ideas and opinions from radio, TV, newspapers, magazines and the infinitely expanding Internet—not to mention friends and family—the question is: who to believe?

If you have questions about food and nutrition issues, your best course of action is to consult a Registered Dietitian. Why? Registered Dietitians are university-trained professionals with a bachelor’s degree in food and nutrition. As part of their university program, they’ve also completed extensive, supervised practical training. Then, to use the title ‘dietitian’, they have to be registered with their local provincial regulatory body and comply with continuing education requirements, as well as adhere to a strong code of ethics.

Nutrition is a complex and evolving science, and you can trust that Registered Dietitians are on the cutting edge.

The team of Registered Dietitians at Dairy Farmers of Canada has collected some of the most common topics of confusion concerning milk products. If you have any questions concerning the health aspects of milk, yogurt and cheese, the chances are good that you’ll find the answers here.

Hope you enjoy getting the facts!

If you’d like to know more, please drop by our website at [dairygoodness.ca](http://dairygoodness.ca).



Is it true that  
it’s unnatural  
for humans to  
drink the milk of  
another species?



**Definitely not. Humans are omnivores, which means we naturally eat all sorts of different plant and animal foods. We drink milk and eat milk products because they are nutrient-dense foods that taste good and are readily available.**

#### **WANT TO KNOW MORE?**

Human beings have raised many different grazing animals for their milk, including sheep, goats, camels, water buffalo and others for thousands of years. These animals are able to eat grass, a substance humans can’t digest,

absorb its nutrients and turn it into a versatile food that is an important source of essential nutrients.

Traditionally raised on land not suited for cultivating crops, these animals and the food they provide have helped humans thrive worldwide. We’ve been depending on milk as an important source of nutrition since before recorded time.

#### *Milk is . . .*

...an excellent source of natural calcium, the kind your body absorbs well. Add that to milk’s 15 other essential nutrients including protein, phosphorus, magnesium and vitamin D, and you have the world’s best beverage for building and maintaining healthy bones.



Is it true that pasteurizing milk destroys important nutrients?



**Absolutely not! Pasteurizing has no meaningful impact on the nutritional value of milk and, what's most important, it kills potentially harmful bacteria. Drinking raw milk is risky to your health and even selling it in Canada is illegal.<sup>1</sup>**

#### WANT TO KNOW MORE?

**About pasteurization...** Named after Louis Pasteur, the 19th century French microbiologist who developed the technique, pasteurization is the process of heating food products to high temperatures for a few seconds. This not only kills potential disease-causing agents and makes milk safe to drink, it increases the time milk keeps before it spoils. Pasteurization is also widely used to kill bacteria in fruit juices, syrups, vinegar and foods to be canned.

**About the effect of pasteurizing on milk's nutrients...** Milk is a very nutritious food and a source of 16 essential nutrients. Pasteurizing it does not negate its healthfulness.

But what does pasteurizing actually do to milk's nutrients? It has no effect on the calcium content or its absorption. Some vitamin C is lost, but milk contains very little vitamin C and is not a significant source to begin with. There is also a minimal loss of some of the B vitamins, but they are so abundant in milk that it continues to be a reliable source of these vitamins.

### *D source . . .*

In Canada, all milk sold must be pasteurized and fortified with vitamin D, an essential nutrient that many of us don't get enough of. There are few natural food sources of vitamin D and the sunshine in most of Canada does not contain enough ultraviolet B between October and April to synthesize vitamin D in our skin.

**About what pasteurizing does to milk enzymes...** Some people believe that raw milk is healthier and more easily digested because it contains "live" enzymes that are killed by pasteurizing. This is a misunderstanding of how our digestive system works. Yes, pasteurizing deactivates live enzymes in raw milk. However, our stomach acids would deactivate them anyway. Our digestive system doesn't depend on the enzymes in food – it produces its own.

**About what pasteurizing does to milk proteins...** It's true that heating above 60°C may break down some proteins. However research shows that this can make them even easier to digest, not harder to digest.

**About pasteurizing and milk allergy...** The scientific literature shows little evidence of a difference in the allergic potential of pasteurized milk when compared with raw milk.<sup>2</sup>

*“My friend read this on the Internet...”*





Is it true that organic milk is healthier than regular milk?

3

The answer is no.<sup>3</sup> Both organic milk and conventional milk give you the same 16 essential nutrients. Canadian Food Inspection Agency's strict quality standards ensure that they are both equally safe and wholesome. As with any food purchase, buying organic or regular milk is a personal choice.

#### WANT TO KNOW MORE?

Some people think that organically grown foods have more nutrients than conventionally grown foods even though there is not enough scientific evidence to support this. Many factors affect a food's nutritional value, such as where and how it was grown, stored, shipped and even cooked. However, whether the foods were produced organically or not appears to make very little difference.

Both organic and non-organic milk contain the same amount of calcium, vitamin D and other essential nutrients. Also, in Canada, both types of milk are submitted to a variety of tests to ensure they meet high quality standards for antibiotic residues. In addition, the use of artificial growth hormones to increase a cow's milk production is not allowed in Canada.

... Simply divine

In a blender, toss one cup (250 mL) of **milk** and one cup (250 mL) of frozen **blueberries**, along with a couple of heaping spoonfuls of **vanilla yogurt** and add a little **maple syrup**. Whirl until smooth and enjoy immediately. It's a totally delicious, all-Canadian treat!



Is it true that dairy cows are injected with growth hormones to increase their milk production?

4

No, it's not. In the USA and some other countries, farmers may be allowed to use **rbST**, an artificial hormone used to increase a cow's milk production. However, this is not permitted in Canada.<sup>4</sup>

#### WANT TO KNOW MORE?

The hormone bST—*bovine somatotropin*—is produced naturally in cattle. Its role is to regulate growth and lactation. Recombinant bST (rbST) is an artificial, commercially produced version of the hormone that can increase a cow's milk production.

While it is unlikely to cause harm to humans, rbST can cause problems in cows. A side effect of using rbST is that it can increase a cow's risk of mastitis, a painful inflammation of the udder, as well as its risk of infertility. It can also cause lameness, a condition that makes it difficult or impossible for animals to walk. For these reasons, Health Canada has not approved its use.

Canadian dairy farmers opt to maximize their herds' milk production using cow-friendly methods. First, they choose breeds known for their high production of milk, then they focus on providing state-of-the-art shelter, high-quality nutrition and health care because healthy, well fed and well cared for cows naturally produce better quality milk.

Naturally nutritious...

Milk is one of the most nutritious foods in our diet. A single cup (250 mL) glass gives you as much protein as a large egg, as much calcium as 8 cups (2 L) of raw broccoli, as much potassium as a medium-size banana, almost half the vitamin B<sub>12</sub> you need in a day, and much more.

# Is lactose intolerance similar to a milk allergy?

# 5

**No. Lactose intolerance and milk allergy are two very different conditions. They may have some similar symptoms, but they are treated in different ways.<sup>5</sup>**

**Lactose intolerance is a digestive problem that occurs when you don't produce enough lactase, an enzyme needed by your digestive system to break down the natural sugars (lactose) in milk. Lactose intolerance may be uncomfortable but is not dangerous. Symptoms include nausea, abdominal pain, bloating, flatulence and diarrhea. A milk allergy, on the other hand, is an overreaction of the immune system to the protein in milk.**

## WANT TO KNOW MORE?

**About a milk allergy...** An allergy to milk is less common than believed. About 3% of infants experience a milk allergy. But by five years of age, almost 90% of these children are no longer allergic to milk. Less than half a percent of adults are allergic to milk.

If you suspect that you or your child has a milk allergy, consult a family doctor or an allergist. Because the symptoms of a milk allergy can be similar to those of other conditions, it's very important to see a doctor to confirm what is causing the symptoms so that the right treatment can take place. The symptoms of a milk allergy can include hives, skin rash, eczema, diarrhea or constipation, nasal congestion, coughing, wheezing and vomiting. If a milk allergy is confirmed by a qualified medical doctor, milk, and products made from milk or that contain some milk ingredients, must be avoided.

**About lactose intolerance...** Lactose intolerance is not a milk allergy. In fact, most individuals with lactose intolerance can still enjoy some milk products. Research shows that many people clinically diagnosed as lactose intolerant report having no problems digesting one cup of milk (250 mL) with a meal, or 2 cups (500 mL)

when spread throughout the day. Yogurt is also well tolerated. The friendly bacteria it contains digests the lactose for you. And firm cheeses like Cheddar or Swiss contain almost no lactose at all.

**About temporary lactose intolerance...** There is also temporary lactose intolerance. This can be a side effect of stomach flu, medication or food poisoning that upset the digestive system for a short period of time. When the condition passes, or you stop taking the medication that causes it, the intolerance disappears.

## Beans! Beans!...

Some people experience mild digestive problems when they eat beans. That's because humans lack the enzyme needed to digest the complex sugars in beans. And yet health professionals encourage us to continue consuming them because of all the healthy nutrients they give us. The fact is that the more we consume them, the better we tolerate them. In the same way, many people build a normal, symptom-free tolerance to lactose by eating milk products a little at a time, and increasing the amount slowly as their tolerance improves.

## Health fact...

Don't give up on milk products. To add to the growing list of health reasons for eating them, scientific studies have shown that consuming 3 daily servings of milk products, along with a diet rich in vegetables and fruits, could have significant benefits in lowering blood pressure.



Is it true  
that cheese  
makes you  
constipated?



**No. Research doesn't show any association between eating cheese and greater constipation, or for that matter, slower intestinal transit time or any other indicator of adult bowel function.**

#### WANT TO KNOW MORE?

Some people continue to believe that cheese causes constipation in spite of there being no scientific evidence to support it. This myth probably hangs on because many cheeses, especially firm cheeses such as Cheddar or Swiss, are dense in texture, and like meat, fish and poultry, contain no fibre.

The truth is that no individual food, let alone cheese, causes constipation. Not enough fibre in the diet can be one of a variety of contributing factors, and so can insufficient

hydration, a lack of physical activity as well as certain medications.

People who suffer from constipation should consume more high-fibre foods, drink lots of fluids and exercise regularly.

Love cheese? Eat it with whole grain crackers or breads with fruit or veggies on the side. Not only will you get fibre with your cheese, you'll make your meal or snack even more nutritious.

### *So delicious...*

Spread two slices of your favourite **whole grain bread** with **chutney**. Layer one slice with thin pieces of **Gouda cheese** and fresh **apple**. Press sandwich together firmly. Lightly **butter** both sides and pan-grill on medium-high heat. Serve when cheese is melting and bread is toasted and golden.

Is it true that  
drinking milk  
causes mucus  
when you  
have a cold?



**The only thing that spreads faster than the common cold is the misconception that you should avoid milk if you have a cold. The truth is that there is no evidence that milk products increase any cold symptoms.<sup>6</sup>**

#### WANT TO KNOW MORE?

If it's not true that milk causes mucus when you have a cold, how come the myth is so widespread? Studies suggest that the notion comes from a perception some people have stemming from milk's texture. Milk has a velvety feel that tends to coat the throat. It's a sensation

that can increase when you are dehydrated. Drinking more water helps. You may also try to drink your milk very cold, or even adding ice cubes may help.

One thing is certain, you don't want to deprive yourself of milk when you have a cold. Milk is a great source of protein that helps build antibodies that fight infections. And because milk is 90% water, it's good for hydration.

### *Citrus soother...*

Stir a generous spoonful of **orange juice concentrate** into a glass of **ice cold milk**. Great when you have a cold.



Is it true that milk products are fattening?



It's quite the opposite. In fact, many studies suggest that consuming 2-4 daily servings of milk products, as part of a low-calorie diet, may actually help prevent weight gain and even help you lose weight.<sup>7</sup> Too bad two out of three Canadian adults don't consume their minimum recommended servings of milk products every day.<sup>8</sup>

#### WANT TO KNOW MORE?

##### About milk products and weight issues...

Research hasn't yet fully revealed how milk products work, but recent studies point to two major factors. While it's probable that calcium plays a key role in weight management, new findings identify dairy protein as another important factor. How? The protein composition unique to milk products has been found to help reduce hunger when calories are restricted. And being less hungry means it is easier to control how much food we eat.

#### Health fact...

When it comes to helping manage weight, milk products appear to be much more effective than calcium supplements. This is probably because milk gives you a lot more than just calcium. Whole foods are very complex substances and no single supplement can duplicate their benefits—or their pleasures.

#### The protein strategy...

**Don't get enough protein at mealtimes?** Studies have shown this can lead to increased hunger between meals and make the temptation to fill up on convenient, non-nutritious foods like chips or candy bars irresistible. Try drinking milk with meals or as a snack. It not only adds to your general protein intake, it provides a unique protein that's especially effective at increasing satisfaction levels. With milk as part of your low-calorie diet, you'll be less likely to give in to cravings.

#### ...Pears perfectly



Place a firm, peeled and cored **pear** in a gently boiling **cranberry juice**, with a stick of **cinnamon** if you have one. Simmer pear until tender and chill. Slice pear nicely and serve with a dollop of **Ricotta cheese** mixed with a drop of **vanilla**, some grated **lemon zest** and a little **icing sugar** for sweetness. Strain the cranberry juice for drinking later. Yum!



Is it true that our milk is full of antibiotics?



**No, it's not.<sup>9</sup> Canadian milk is produced according to some of the highest standards in the world—this includes ensuring that milk from cows treated with antibiotics is properly disposed of until the mandatory withdrawal period for the medication has passed.**

*Are you getting enough?...*

Did you know that 2 out of 3 Canadian adults don't get enough milk products? *Canada's Food Guide* recommends that you get 2 to 4 servings of Milk and Alternatives every day, depending on your age group.<sup>8</sup>

*“Now I have the facts, I can make a real choice.”*

#### WANT TO KNOW MORE?

Cows, like humans, sometimes get sick. If a veterinarian prescribes a medication such as an antibiotic, farmers follow strict regulations and make sure it's administered correctly.

First, a cow being treated is clearly identified and her milk is properly discarded for a mandatory withdrawal period to allow the medication to get out of her system.

Once a milk tanker arrives at a processing plant, its milk is submitted to a variety of tests. On the rare occasion that the milk does not meet all standards, the entire load is rejected and disposed of. Because samples of milk are taken

at every farm, the farmer at fault can be easily traced back and held accountable. Fines for milk that contains contaminants are severe, so dairy farmers take great care to ensure that their milk is pure.







*Have more questions  
about milk products?*

Visit our website at **dairygoodness.ca**

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