

## Milk - facts and fallacies

Milk is an excellent source of vitamins and minerals, particularly calcium. It has long been recognised for its important role in bone health. Nutritionists recommend that milk and other dairy products should be consumed daily as part of a balanced diet.

There is some inaccurate information around in the general community about the health benefits of milk. Changing your milk intake on the basis of these fallacies may mean you are unnecessarily restricting this highly nutritious drink.

### Milk contains many different nutrients

Milk and milk products contain a good balance of protein, fat and carbohydrate and are a very important source of essential nutrients including:

- Calcium
- Riboflavin
- Phosphorous
- Vitamins A, D and B12
- Pantothenic acid.

Milk products also contain 'high quality proteins' that are well suited to human needs. Milk proteins increase the value of poorer quality cereal and vegetable proteins in the diet by providing the amino acids these proteins lack.

### Milk and health conditions

Australians tend to restrict dairy foods when they try to lose weight, believing them to be fattening. Dairy foods contain saturated fats, which have been associated with increased blood cholesterol levels. However, dairy foods (particularly low-fat products) are not a threat to good health if consumed in moderation as part of a well-balanced nutritious diet.

Some research findings include:

- **Osteoporosis** – if milk and milk products are removed from the diet, it can lead to an inadequate intake of calcium. This is of particular concern for women and the elderly, who have high calcium needs. Calcium deficiency may lead to disorders like osteoporosis (a disease characterised by bone loss).
- **Colon cancer** – some studies have found that people who regularly eat dairy products have a reduced risk of developing colon cancer.
- **Blood pressure** – research in the US found that a high intake of fruits and vegetables, combined with low-fat dairy foods, will lower blood pressure more than fruits and vegetables alone.
- **Type 2 diabetes** – a 10-year study of 3,000 overweight adults found that consuming milk and other milk products instead of refined sugars and carbohydrates may protect overweight young adults from developing type 2 diabetes.

### Flavoured milk

A recent US study reported that children who avoid milk tend to be fatter than children who drink milk. This may be because milk is being replaced by high energy drinks such as fruit juice or soft drinks.

As children move into adolescence, the time when they need the most calcium, they tend to drink less milk and more sugary soft drinks. As milk is a healthier choice, it is worth encouraging children over two years of age to drink reduced fat flavoured milk rather than soft drinks.

## Milk and tooth decay

Milk and milk products are thought to protect against tooth decay. Eating cheese and other dairy products:

- Reduces oral acidity (which causes decay)
- Stimulates saliva flow
- Decreases plaque formation
- Decreases the incidence of dental caries (tooth decay).

## Modified milks explained

There are many types of milks on the market, including:

- **Full cream** – full cream milk contains around four per cent fat and is a source of vitamins A and D. For children up to the age of two years, full cream milk is recommended.
- **Reduced fat** – expect around half as much fat in reduced fat milk as full cream. Children over the age of two years can drink reduced fat milk.
- **Skim milk** – contains less than one per cent fat. Children older than five years can safely consume skim milk. Both reduced fat and skim milk have vitamin A and D added to replace the naturally occurring vitamins that are reduced when the fat is removed.
- **Calcium enriched** – generally milks that are enriched with extra calcium are also fat reduced. A 250 ml glass of milk contains 408–500 mg of calcium.
- **Flavoured** – these milks can either be full cream or reduced fat. However, most varieties contain a lot of sugar.
- **UHT (ultra-high temperature-treated) milk** – is treated with very high heat to allow milk to be stored for long periods.

## Unpasteurised milk

Most milk on the market is pasteurised (heat treated then cooled). Milk that hasn't been through this process should be avoided. While pasteurisation reduces the amount of some vitamins, such as vitamin C, it also kills bacteria. Unpasteurised milk is a health hazard because of the dangers of bacterial diseases.

## Milk and mucous

Many people in Australia believe that nasal stuffiness is related, in part, to how much milk you drink. However, there is no scientific basis to this theory. Milk doesn't encourage extra mucous production.

## Cows milk versus goats milk

Some people switch to goat's milk because of perceived sensitivities to cow's milk. If a person has an allergic sensitivity, it is usually due to one or more of the proteins in milk. The proteins in goat's milk are closely related to those in cow's milk so replacing one type of milk with the other usually doesn't make any difference. Milk allergies are more common in very young children and most tend to grow out of them or build up a tolerance to milk.

## Lactose intolerance

Lactose is a type of carbohydrate or sugar that naturally occurs in milk from any mammal, including humans. Normally, an enzyme in the small intestine called lactase breaks down lactose so it can be absorbed into the bloodstream. Some people don't produce enough lactase – undigested lactose is broken up by the bacteria in their large intestine causing gas, bloating, pain and diarrhoea. This condition is called 'lactose intolerance'.

You can be born lactose intolerant or develop it later in life. If you think you may be lactose intolerant, see your doctor.

## Most people can have small amounts of dairy products

Milk and milk products are highly nutritious, so people who suffer from lactose intolerance should not give them up entirely. You can still consume milk in moderate quantities. You can also buy lactose-free milk.

Most people can tolerate the amount of lactose in:

- Half a cup of milk
- Three quarters of a cup of ice cream
- Three quarters of a cup of yoghurt
- Half a cup of white sauce
- Three quarters of a cup of unripened cheeses like cottage or ricotta.

## Some dairy foods contain less lactose

Some dairy foods contain less lactose than others and may be better for people who suffer from lactose intolerance. For example:

- Fermented milk products, including some yoghurts, mature cheeses (like cheddar cheese, fetta and mozzarella) and butter, generally pose no tolerance problems. (However, butter is high in saturated fat and is not recommended for good heart health.)
- Heated milk products, such as evaporated milk, seem to be better tolerated than unheated foods because the heating process breaks down some of the lactose.

Foods that contain lactose are better tolerated if eaten with other foods or spread out over the day, rather than being eaten in large amounts at once.

## Soy as an alternative

Soy foods are lactose free and a good substitute for milk or milk products if fortified with calcium. Soy milk, custard, yoghurt and cheese are now widely available in Australia, but check that they are calcium fortified.

## Other sources of calcium

Although milk is an excellent source of calcium, it isn't the only one. Other good sources include:

- Cheese, especially hard cheeses
- Yoghurt
- Calcium-fortified soy products
- Calcium-fortified cereals and orange juice
- Fish with edible bones, like canned salmon and sardines
- Some nuts (almonds, brazil nuts)
- Sesame seeds (and tahini)
- Dried fruit (figs, apricots)
- Dark green leafy vegetables (Asian greens like bok choy).

## Daily calcium requirements

To meet the body's daily calcium requirement, it is recommended that adults eat between two and a half to four serves of dairy products a day. One serve is equivalent to:

- 250mL (1 cup) milk – fresh, UHT long-life or reconstituted dried
- 125mL (1/2 cup) evaporated unsweetened milk
- 200g (3/4 cup or 1 small carton) yoghurt
- 40g (2 slices, or a 4x3x2 cm piece) hard cheese (such as cheddar)
- 120g ricotta cheese

People who do not eat any dairy products may have difficulty meeting their daily calcium requirements. They will need to pay special attention to other dietary sources of calcium.

## Where to get help

- Your doctor
- Gastroenterologist (your doctor can refer you)
- An Accredited Practising Dietitian, contact the Dietitians Association of Australia.

## Things to remember

- Milk is an excellent source of calcium and other essential nutrients.
- There are many modified milks available.
- Lactose intolerance is caused by an inability to digest milk sugars, but most people can tolerate small amounts of milk.
- Flavoured milks (reduced fat varieties, for children over two years) are preferable to soft drinks and fruit drinks.

**This page has been produced in consultation with, and approved by:**

Deakin University - School of Exercise and Nutrition Sciences

Content on this website is provided for education and information purposes only. Information about a therapy, service, product or treatment does not imply endorsement and is not intended to replace advice from your doctor or other registered health professional. Content has been prepared for Victorian residents and wider Australian audiences, and was accurate at the time of publication. Readers should note that, over time, currency and completeness of the information may change. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions.

For the latest updates and more information, visit [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)

**Copyright** © 1999/2012 State of Victoria. Reproduced from the Better Health Channel ([www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.