

Shopping for Health: Milk¹

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Why Is Milk Important for Health?

Milk provides a variety of essential nutrients that your body needs to maintain good health. These nutrients include calcium, vitamin D, vitamin A, and potassium. Milk also contains high quality protein that helps meet your body's needs (1).

Health Benefits

A diet with the recommended servings of milk and milk products will help build and maintain bone (1). This is especially beneficial during childhood and adolescence when the majority of bone mass is made. In addition, milk may help control blood pressure because of its potassium and calcium content.

Shopping for Milk

Shopping for milk may seem overwhelming due to the wide variety of milk products in the market. You may find that some types of milk meet your needs better than others based on your specific health conditions or preferences.

Fat Content of Milk

Consuming a diet high in saturated fat may lead to high blood cholesterol and increase your risk of heart disease. By choosing low-fat or skim milk, you can receive the nutritional benefits of milk without the excess calories and saturated fat. **Table 1** shows the amount of fat in different



Figure 1. Milk

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types of cow's milk. If you prefer the flavor of whole milk to skim milk, try slowly transitioning to lower fat versions. This may allow you to grow accustomed to the different taste and decrease your daily fat intake.

Animal Milks

LACTOSE-FREE MILK

Some people lack the enzyme needed to digest the milk sugar, lactose. These people may have unpleasant digestive symptoms after drinking milk. This is known as lactose intolerance. People that are unable to digest lactose may

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be able to consume a small amount of lactose without troubling side effects.

Lactase enzymes may be added to regular milk to make it easier to digest for people with lactose intolerance. Some brands, such as Lactaid®, offer milk products with this enzyme added. Since the lactose in this kind of milk is broken down into smaller sugars, the milk may taste sweeter.

RAW MILK

Raw milk is milk that has not been pasteurized. *Pasteurization* is a heating procedure used to kill harmful bacteria in dairy products. Both raw and pasteurized milk contain the same nutritional value, but the bacteria in raw milk may cause a variety of foodborne illnesses (2). This is especially dangerous for people with weakened immune systems.

ORGANIC MILK

Milk may be labeled as *organic* if the animal is not treated with hormones or medications, is fed only organic feed, and is allowed enough grazing time. If milk is produced according to standards set by the USDA National Organic Program, it will carry the seal shown here (3):



Figure 2. When you see the USDA Organic Seal, you know the product is at least 95 percent organic and it has been produced and processed in accordance with the USDA's National Organic Program standards.

Credits: USDA-AMS 2010 <http://www.ams.usda.gov/nop/>

Organic milk has the same nutrient content as regular milk, and production must comply with the same safety standards. There are no known health benefits of drinking

organic milk over non-organic milk, but some consumers choose organic milk to avoid consuming growth hormones.

GOAT'S MILK

Although less popular in the United States, goat's milk is used as an alternative to cow's milk in many countries.

Some research has shown that goat's milk may be beneficial for people with an allergy to cow's milk because it contains different proteins than cow's milk. Other studies, however, have shown that goat's milk is also highly allergenic and is not a good substitute for most people with a known allergy to cow's milk (4).

Like cow's milk, goat's milk contains the sugar lactose, and may cause digestive upset in people with lactose intolerance.

Goat's milk has a slightly higher fat content than whole cow's milk, with about 10 g of fat per 8 oz glass. If you are looking to lower your fat intake, goat's milk is not a good choice.

Plant-Based Milks

SOY MILK

Rather than using animal products, soy milk is made from soy beans. It may be a healthy alternative to cow's milk for many people. Soy milk contains about the same amount of protein as cow's milk, but the protein quality is a bit lower than that of cow's milk.

Soy milk is safe for many people with an allergy to cow's milk because it lacks the protein *casein*, which is responsible for many allergic reactions (5). Soy milk is also lactose-free and is a good source of protein and calcium for people with lactose intolerance.

Soy milk has no cholesterol and less saturated fat than cow's milk. Soy protein may help decrease blood cholesterol and reduce your risk for heart disease (6).

RICE MILK

Rice milk, another plant-based milk substitute, is made from rice grains. Like soy milk, it is safe for people with lactose intolerance or a cow's milk allergy.

If you drink rice milk as a replacement for cow's milk in your diet, you should be aware that it has a very different nutrient content. With only 2.5 g of fat per cup, rice milk may be a good choice for people looking to decrease their fat intake. However, rice milk is not recommended for

young children or infants due to its low protein content (7). While normal cow's milk has about 8 grams of protein per cup, rice milk has less than 1 gram per cup.

Chocolate Milk

Most milk and milk substitutes come in a chocolate-flavored variety. Chocolate milk generally has more calories and sugar than the plain alternative, but still provides the same essential nutrients and health benefits. Drinking low-fat chocolate milk in appropriate amounts may be a healthy option for children who might otherwise not drink milk.

Be an Informed Shopper

Consuming milk and milk products can provide many long-term health benefits, but you should know the facts before you shop. Not all types of milk provide the same nutrients.

Learn More

Contact the Family and Consumer Sciences (FCS) agent at your county Extension office for more information and ask about nutrition classes for you to attend. Also, you can receive reliable information from a registered dietitian (RD). If you have concerns about your specific health condition, you should speak to your doctor.

Endnotes

(1) U.S. Department of Agriculture. *Inside the pyramid: Milk*. 11 Sep 2008. Web. http://www.mypyramid.gov/pyramid/milk_why_print.html

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(4) Bellioni-Businco B, Paganelli R, Lucenti P, Giampietro P, Perborn H. 1999. Allergenicity of goat's milk in children with cow's milk allergy. *Journal of Allergy and Clinical Immunology* 103(6).

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(6) Anderson J, Johnstone B, Cook-Newell M. 1995. Meta-analysis of the effects of soy protein intake on serum lipids. *Circulation* 333(5): 276–282.

(7) Massa G, Vanoppen A, Gillis P, Aerssens P, Alliet P, Raes M. 2001. Protein malnutrition due to replacement of milk by rice drink. *Eur J Pediatr* 160(6): 382–384.

Table 1. Fat content of cow's milk

Milk Type	Fat (g / 8 oz glass)
Whole milk	8
Reduced-fat (2%) milk	5
Low-fat (1%) milk	2.5
Skim Milk	0

g = gram(s)
oz = ounce