

Health Concerns about Dairy Products

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Many Americans, including some vegetarians, still consume substantial amounts of dairy products—and government policies still promote them—despite scientific evidence that questions their health benefits and indicates their potential health risks.

Osteoporosis

Milk's main selling point is calcium, and milk-drinking is touted for building strong bones in children and preventing osteoporosis in older persons. However, clinical research shows that dairy products have little or no benefit for bones. A 2005 review published in *Pediatrics* showed that milk consumption does not improve bone integrity in children.¹ Similarly, the Harvard Nurses' Health Study,² which followed more than 72,000 women for 18 years, showed no protective effect of increased milk consumption on fracture risk. While calcium is important for bone health, studies show that increasing consumption beyond approximately 600 mg per day—amounts that are easily achieved without dairy products or calcium supplements—does not improve bone integrity.²

In studies of children and adults, exercise has been found to have a major effect on bone density.³⁻⁵

You can decrease your risk of osteoporosis by reducing sodium and animal protein intake in the diet,⁶⁻⁹ increasing intake of fruits and vegetables,^{9,10} exercising,^{4,11} and ensuring adequate calcium intake from plant foods such as kale, broccoli, and other leafy green vegetables and beans. You can also use calcium-fortified products such as breakfast cereals and juices, although these products provide more concentrated calcium than is necessary.

Fat Content and Cardiovascular Disease

Dairy products—including cheese, ice cream, milk, butter, and yogurt—contribute significant amounts of cholesterol and saturated fat to the diet.¹² Diets high in fat and saturated fat can increase the risk of heart disease, among other serious health problems. A low-fat vegetarian diet that eliminates dairy products, in combination with exercise, smoking cessation, and stress management, can not only prevent heart disease, but may also reverse it.^{13,14} Non-fat dairy products are available; however, they pose other health risks as noted below.

Cancer

Prostate and breast cancers have been linked to consumption of dairy products, presumably related to increases in a compound called insulin-like growth factor (IGF-I).¹⁵ IGF-I is found in cow's milk and has been shown to occur in increased levels in the blood of individuals consuming dairy products on a regular basis.¹⁶ Other nutrients that increase IGF-I are also found in cow's milk.

Case-control studies in diverse populations have shown a strong and consistent association between serum IGF-I concentrations and prostate cancer risk.¹⁷ One study showed that men who had the highest levels of IGF-I had more than four times the risk of prostate cancer compared with those who had the lowest levels.¹⁸ Other findings show that prostate cancer risk was elevated with increased consumption of low-fat milk, suggesting that too much dairy calcium could be a potential threat to prostate health.^{19,20}

Ovarian cancer may also be related to the consumption of dairy products. The milk sugar lactose is broken down in the body into another sugar, galactose. Research suggests that the dairy sugar galactose might be toxic to ovarian cells.²¹ In a study conducted in Sweden, consumption of lactose and dairy products was positively linked to ovarian cancer.²² A similar study, the Iowa Women's Health Study, found that women who consumed more than one glass of milk per day had a 73 percent greater chance of ovarian cancer than women who drank less than one glass per day.²³

Lactose Intolerance

Lactose intolerance is common among many populations, affecting approximately 95 percent of Asian Americans, 74 percent of Native Americans, 70 percent of African Americans, 53 percent of Mexican Americans, and 15 percent of Caucasians.²⁴ Symptoms, which include gastrointestinal distress, diarrhea, and flatulence, occur because these individuals do not have the enzyme lactase that digests the milk sugar lactose. For those who can digest lactose, its breakdown products are two simple sugars: glucose and galactose. Nursing children have active enzymes that break down galactose. As we age, many of us lose much of this capacity.²⁵ Additionally, along with unwanted symptoms, milk-drinkers also put themselves at risk

for development of other chronic diseases and ailments.

Vitamin D

Individuals often drink milk in order to obtain vitamin D in their diet, unaware that they can receive vitamin D through other sources. The natural source of vitamin D is sunlight. Five to fifteen minutes of sun exposure to the arms and legs or the hands, face, and arms can be enough to meet the body's requirements for vitamin D, depending on the individual's skin tone.²⁶ Darker skin requires longer exposure to the sun in order to obtain adequate levels of vitamin D. In colder climates during the winter months the sun may not be able to provide adequate vitamin D. During this time the diet must be able to provide vitamin D. Fortified cereals, grains, bread, orange juice, and soy- or rice milk are healthful foods that provide vitamin D. All common multiple vitamins also provide vitamin D.

Contaminants

Milk contains contaminants that range from pesticides to drugs. Milk naturally contains hormones and growth factors produced within a cow's body. In addition, synthetic hormones such as recombinant bovine growth hormone (rBGH) are commonly used in dairy cows to increase the production of milk.²⁷ Because treated cows are producing quantities of milk nature never intended, the end result can be mastitis, or inflammation of the mammary glands. Treatment of this condition requires the use of antibiotics, and antibiotic traces have occasionally been found in samples of milk and other dairy products. Pesticides, polychlorinated biphenyls (PCBs), and dioxins are other examples of contaminants found in milk. These toxins do not readily leave the body and can eventually build to harmful levels that may affect the immune and reproductive systems. The central nervous system can also be affected. Moreover, PCBs and dioxins have also been linked to cancer.²⁸

Milk Proteins and Diabetes

Insulin-dependent (type 1 or childhood-onset) diabetes is linked to consumption of dairy products.²⁹ A 2001 Finnish study of 3,000 infants with genetically increased risk for developing diabetes showed that early introduction of cow's milk increased susceptibility to type 1 diabetes.³⁰

Health Concerns of Infants and Children

Milk proteins, milk sugar, fat, and saturated fat in dairy products pose health risks for children and encourage the development of obesity, diabetes, and heart disease.

The American Academy of Pediatrics recommends that infants below one year of age not be given whole cow's milk,³¹ as iron deficiency is more likely on a dairy-rich diet. Cow's milk products are very low in iron.³² If dairy products become a major part of one's diet, iron deficiency is more likely. Colic is an additional concern with milk consumption. Up to 28

percent of infants suffer from colic during the first month of life.³³ Pediatricians learned long ago that cow's milk was often the reason. We now know that breastfeeding mothers can have colicky babies if the *mothers* consume cow's milk. The cow's antibodies can pass through the mother's bloodstream, into her breast milk, and to the baby.^{34,35} Additionally, food allergies appear to be common results of cow's milk consumption, particularly in children.^{36,37} Cow's milk consumption has also been linked to chronic constipation in children. Researchers suggested that milk consumption resulted in perianal sores and severe pain on defecation, leading to constipation.³⁸ (note)

Milk and dairy products are not necessary in the diet and can, in fact, be harmful to health. It is best to consume a healthful diet of grains, fruits, vegetables, legumes, and fortified foods including cereals and juices. These nutrient-dense foods can help you meet your calcium, potassium, riboflavin, and vitamin D requirements with ease—and without health risks.

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