

Milk

No Longer Recommended or Required

PHYSICIANS COMMITTEE FOR RESPONSIBLE MEDICINE

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A substantial body of scientific evidence raises concerns about health risks from cow's milk products. These problems relate to the proteins, sugar, fat, and contaminants in dairy products, and the inadequacy of whole cow's milk for infant nutrition.

Health risks from milk consumption are greatest for infants less than one year of age, in whom whole cow's milk can contribute to deficiencies in several nutrients, including iron, essential fatty acids, and vitamin E. The American Academy of Pediatrics¹ recommends that infants under one year of age not receive whole cow's milk.

Cow's milk products are very low in iron,² containing only about one-tenth of a milligram (mg) per eight-ounce serving. To get the U.S. Recommended Daily Allowance of 15 mg of iron, an infant would have to drink more than 31 quarts of milk per day. Milk can also cause blood loss from the intestinal tract, which, over time, reduces the body's iron stores. Researchers speculate that the blood loss may be a reaction to proteins present in milk.³ Pasteurization does not eliminate the problem. Researchers from the University of Iowa recently wrote in the *Journal of Pediatrics* that "in a large proportion of infants, the feeding of cow milk causes a substantial increase of hemoglobin loss. Some infants are exquisitely sensitive to cow milk and can lose large quantities of blood."³

Although concerns are greatest for children in the first year of life, there are also health concerns related to milk use among older children and some problems associated with cow's milk formulas.

Milk Proteins and Diabetes

Several reports link insulin-dependent diabetes to a specific protein in dairy products. This form of diabetes usually begins in childhood. It is a leading cause of blindness and contributes to heart disease, kidney damage, and amputations due to poor circulation.

Studies of various countries show a strong correlation between the use of dairy products and the incidence of diabetes.⁴ A recent report in the *New England Journal of Medicine*⁵ adds substantial support to the long-standing theory that cow's milk proteins stimulate the production of the antibodies⁶ which, in turn, destroy the insulin-producing pancreatic cells.⁷ In the new report, researchers from Canada and

Finland found high levels of antibodies to a specific portion of a cow's milk protein, called bovine serum albumin, in 100 percent of the 142 diabetic children they studied at the time the disease was diagnosed. Non-diabetic children may have such antibodies, but only at much lower levels. Evidence suggests that the combination of a genetic predisposition and cow's milk exposure is the major cause of the childhood form of diabetes, although there is no way of determining which children are genetically predisposed. Antibodies can apparently form in response to even small quantities of milk products, including infant formulas.

Pancreatic cell destruction occurs gradually, especially after infections, which cause the cellular proteins to be exposed to the damage of antibodies. Diabetes becomes evident when 80 to 90 percent of the insulin-producing beta cells are destroyed.

Milk proteins are also among the most common causes of food allergies. Often, the cause of the symptoms is not recognized for substantial periods of time.

Milk Sugar and Health Problems

Many people, particularly those of Asian and African ancestry, are unable to digest the milk sugar, lactose. The result is diarrhea and gas. For those who can digest lactose, its breakdown products are two simple sugars: glucose and galactose. Galactose has been implicated in ovarian cancer⁸ and cataracts.^{9,10} Nursing children have active enzymes that break down galactose. As we age, many of us lose much of this capacity.

Fat Content

Whole milk, cheese, cream, butter, ice cream, sour cream, and all other dairy products aside from skim and non-fat products contain significant amounts of saturated fat, as well as cholesterol, contributing to cardiovascular diseases and certain forms of cancer. The early changes of heart disease have been documented in American teenagers. While children do need a certain amount of fat in their diets, there is no nutritional requirement for cow's milk fat. On the contrary, cow's milk is high in saturated fats, but low in the essential fatty acid linoleic acid.

Contaminants

Milk contains frequent contaminants, from pesticides to drugs. About one-third of cow's milk products have been shown to be contaminated with antibiotic traces. The vitamin D content of milk has been poorly regulated. Recent testing of 42 milk samples found only 12 percent within the expected range of vitamin D content. Testing of ten samples of infant formula revealed seven with more than twice the vitamin D content reported on the label, one of which had more than four times the label amount.¹¹ Vitamin D is toxic in overdose.¹²

Osteoporosis

Dairy products offer a false sense of security to those concerned about osteoporosis. In countries where dairy products are not generally consumed, there is actually less osteoporosis than in the United States. Studies have shown little effect of dairy products on osteoporosis.¹³ The Harvard Nurses' Health Study followed 78,000 women for a 12-year period and found that milk did not protect against bone fractures. Indeed, those who drank three glasses of milk per day had more fractures than those who rarely drank milk.¹⁴

There are many good sources of calcium. Kale, broccoli, and other green leafy vegetables contain calcium that is readily absorbed by the body. A recent report in the *American Journal of Clinical Nutrition* found that calcium absorbability was actually higher for kale than for milk, and concluded that "greens such as kale can be considered to be at least as good as milk in terms of their calcium absorbability."¹⁵ Beans are also rich in calcium. Fortified orange juice supplies large amounts of calcium in a palatable form.¹⁶

Calcium is only one of many factors that affect the bone. Other factors include hormones, phosphorus, boron, exercise, smoking, alcohol, and drugs.¹⁷⁻²⁰ Protein is also important in calcium balance. Diets that are rich in protein, particularly animal proteins, encourage calcium loss.²¹⁻²³

Recommendations

There is no nutritional requirement for dairy products, and there are serious problems that can result from the proteins, sugar, fat, and contaminants in milk products. Therefore, the following recommendations are offered:

1. Breast-feeding is the preferred method of infant feeding. As recommended by the American Academy of Pediatrics, whole cow's milk should not be given to infants under one year of age.
2. Parents should be alerted to the potential risks to their children from cow's milk use.

3. Cow's milk should not be required or recommended in government guidelines.
4. Government programs, such as school lunch programs and the WIC program, should be consistent with these recommendations.

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