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Be smart about giving calcium to kids

As a pediatrician born and raised in Vermont, I am ambivalent about the recent controversy surrounding the value of milk and other dairy products, and understand I risk alienating many in the dairy industry. Pediatricians, the National Institute of Health and the National Academy of Science, along with many others, have long recommended milk and dairy products as the ideal food and preferred source of calcium.

It has been believed that a specific intake of calcium was needed for maximal bone-mass density and subsequent bone health, providing additional protection from fractures during childhood as well as those associated with osteoporosis later in life. Once a child switched from human breast milk to other calcium sources, recommended daily intakes of calcium have gradually increased in the United States to 500 to 800 milligrams in adolescence, and 1,000 milligrams as adults. But despite the United States having the world's highest intake of calcium, we still have among the highest rates of bone fractures and osteoporosis. High doses of calcium do not seem to provide the expected protection.

Beyond early childhood, low-fat milk has been recommended as an excellent source of calcium, vitamin D, and protein. In addition, many alternative sources of calcium exist in dark green, leafy vegetables (excluding spinach), broccoli, instant oats, tofu, soy milk, calcium tablets, and fortified juices and cereals. Many pediatricians, however, increasingly discouraged even fortified juices, as they contain so many "empty calories," leading children who develop preferences for the high sugar content that may cause an insulin surge to increase their demands for more and more juice. Their appetites are often suppressed and sustaining a balanced diet becomes very difficult, often resulting in nutritional deficiencies.

It can difficult to persuade parents—who see that juices are included in government-supported nutritional programs like WIC—and are constantly confronted with sophisticated marketing programs—that juice can be the cause of growth failure as well as serious dental decay. In the past, recommendations for calcium sources have been set by government agencies and well-meaning physicians and nutritional organizations, based on the seemingly reasonable assumptions mentioned above. New standards being implemented, however, demand that we make only "evidence-based" recommendations.

An extensive review of world literature, reported in an article in this month's Pediatrics, indicates that there is inadequate information available to support recommendations that milk and dairy products are the preferred source of dietary calcium or that higher intakes of calcium are effective in improving bone health. It is also important to note that although milk may not be the preferred calcium source, there is no evidence to suggest that dairy products or recommended doses of calcium have any negative effects.

We know that bone health is, to a degree, dependent on many factors including genetics, calcium intake, vitamin D, and, perhaps most importantly, weight-bearing exercise beginning in early childhood. While research and discussion on this issue continues, it seems hard to dispute the fact that the good health and dietary habits, including adequate exercise, cultivated in early childhood can translate to the active lifestyle and longevity we all wish for as adults.

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