Why Whole Milk should be allowed as a choice in schools

The current federal prohibition of Whole Milk in schools allows only fat-free and 1% low-fat milk to be served and restricts flavored milk to fat-free status. In the Smart Snacks rules, USDA also prohibits Whole Milk from being offered as an à la carte beverage or vending machine option. Since these rules were put in place a decade ago, the BMI scores of students and rate of obesity and diabetes among young people have increased dramatically. Prohibition of whole milk has not had the desired effect, and may be exacerbating the problem.

School lunch and breakfast provide nutrition at the peak of the day when students need to be at their best. Students have 1 or 2 meals a day, 5 days a week for 9 to 10 months of the year at school. Allowing students to choose milk they love and will drink, by allowing Whole Milk as a choice, assures nutritional equity so students from food-insecure homes also are able to truly access milk’s powerhouse nutrition.

- Whole Milk is standardized to 3.25% fat. This is a healthy matrix of complex and beneficial fatty acids, mono- and poly-unsaturated as well as saturated, including Omega 3s.

- Several foods containing saturated fatty acids, such as whole milk, full-fat dairy and unprocessed meat, are not associated with increased cardiovascular disease or diabetes risk. Reviews of the science show no robust evidence for the current limit on saturated fat consumption, especially for children.

- Research on milkfat, specifically, showed a healthier net effect on cholesterol levels: HDL levels were significantly raised but with zero effect on LDL when whole milk and full-fat dairy foods were regularly consumed.

- Several studies show children consuming Whole Milk had reduced Body Mass Index (BMI), 40% reduced risk of becoming overweight as well as higher blood-stores of Vitamin D.

- A first of its kind double-blind controlled clinical trial published in the Dec. 2021 American Journal of Clinical Nutrition showed no impact on cardiometabolic risk factors in children whose consumption of milkfat was increased. In fact, the Body Mass Index (BMI) of this group declined during the trial. On the other hand, the group whose milkfat consumption was decreased did not see a BMI decline. Researchers said these findings were consistent with systematic meta-analysis and review of research findings.

- Several studies have shown that the milkfat in Whole Milk slows the rate of carbohydrate (lactose) absorption to increase satiety, reduce hunger cravings, level blood sugar swings, and reduce digestive sensitivity.

- Moderate consumption of milkfat has been associated with improved mood and cognition.

- Whole Milk promotes absorption of essential fat-soluble vitamins, for example:
  - Vitamin D is a fat-soluble vitamin and a nutrient of concern. It is necessary for the absorption of Calcium and supports a healthy immune system. Recent reviews show that adequate intakes of Calcium and Vitamin D in childhood are linked to reductions in development of osteoporosis, Type II Diabetes and bone fractures later in life. A recent Pediatric Review showed 61% of young people suffer from Vitamin D deficiency, and 40% do not get enough Calcium.
A study published in the American Journal of Clinical Nutrition showed children drinking Whole Milk absorbed three times the Vit. D as those drinking low-fat (1%) milk. Another study showed children drinking non-dairy "alternatives", even with added Vit. D, were deficient in Vit. D status compared with children drinking cow’s milk.

Vitamin A and K are also fat-soluble nutrients of concern found in milkfat. Whole Milk is a natural significant source of Vit. A that is more absorbable and environmentally-friendly compared with the Vitamin A Palmitate that must be added to fat-free and low-fat milk in order to list the Vit. A on the label.

**Students prefer the taste of Whole Milk and therefore consume it.** A Pennsylvania middle / high school did a 2019-20 school year trial for grades 7 through 12, which could be a template for more milk choice trials. It showed that something as simple as offering a choice of milkfat options, including Whole Milk, within school meals can significantly change the amount of milk chosen, consumed, and NOT discarded:
- Students showed 3 to 1 preference for Whole Milk vs. low-fat milk.
- 64% of students said they chose milk more often during trial.
- 50% increase in milk consumption (fewer students refused the milk).
- 95% reduction in volume of discarded milk (fewer students discarded milk).

When students are able to choose milk they love, they benefit from 13 essential nutrients, including nutrients of concern like Calcium, Vitamins A, D, B12, B5, B6, Potassium, Riboflavin, Phosphorus, Niacin, Thiamin, Zinc, Magnesium. Recent data show 40% of kids 3 to 13 do not get enough Calcium (even higher for adolescent girls), 50% do not get enough Potassium and 80% do not get enough Vit. D. Whole milk delivers all three in a package many students prefer, and the fat content improves absorption.

There are a total of 21 minerals and 13 vitamins in milk, as well as 8 grams of complete protein – containing all 9 amino acid building blocks for health. This nutrition powerhouse in milk is only realized if students like and actually consume the milk.

For immune system support, Vitamin D and protein amino acids found in milk have been highlighted. Vitamin D is a fat-soluble vitamin. The milkfat in Whole Milk helps with student preference and with absorption so children get these immune-supporting essentials.

Whole Milk choice within school meals is beneficial for concerns about the health of growing bones as the medical community cites increased fractures and scoliosis. Milk fat makes milk taste better and aids in absorption of the Vit. D needed alongside Calcium for growing bones.

While there are more calories in 8 ounces of Whole Milk than 8 ounces of fat-free milk, those calories are not empty, and the milkfat calories provide satiety, which is important for maintaining a healthy weight.

Plus, when the fat is kept in the flavored milk, less sugar is added! That's a big win too!

**References**

1) Saturated Fats and Health: JACC State-of-the-Art Review [https://www.onlinejacc.org/content/early/2020/06/16/j.jacc.2020.05.077](https://www.onlinejacc.org/content/early/2020/06/16/j.jacc.2020.05.077)

2) Whole Milk consumption by children reduced risk of overweight and obesity by 40%: [https://www.sciencedaily.com/releases/2019/12/191230104810.htm](https://www.sciencedaily.com/releases/2019/12/191230104810.htm)


4) Children drinking cow’s milk had better Vit. D levels than those drinking “alternatives”, even with Vit. D added [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4234713/?fbclid=IwAR0GH1LLniGquDlgtTC3BzdAAkt-UdYQbZlwi4kJBAJmF8fP2pKwE](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4234713/?fbclid=IwAR0GH1LLniGquDlgtTC3BzdAAkt-UdYQbZlwi4kJBAJmF8fP2pKwE)

Whole-fat dairy products do not adversely affect adiposity or cardiometabolic risk factors in children. [6]

“The Childhood Obesity Epidemic, how the Federal guidelines to improve our diets made our children fat,” by Dr. Richard C. Theuer, adjunct professor in the Dept. of Food, Bioprocessing and Nutrition Sciences at North Carolina State University. Dr. Theuer reports the science behind the fatty acids in whole milk helping prevent and manage diabetes, which is on the rise among children and teens. [7]

New York City registered dietitian, certified diabetes educator and author Laura Cipullo, writes: “When someone eats full-fat dairy versus low-fat dairy, the fat will actually delay the absorption of the milk’s sugar. As a result, blood sugar rises more slowly over a longer period of time. Consequently, insulin follows this same pattern. Less circulating insulin means less risk for the development of insulin resistance and diabetes. Full-fat dairy is lower in lactose, making it easier for individuals with lactose intolerance to digest compared to low-fat or no-fat dairy. Meanwhile one specific fatty acid contained in dairy is known to aid in gastrointestinal health, and according to a 2013 review from Polish researchers, may actually hold promise in the treatment of IBS and promoting healthy gut bacteria.” [8]

The negative image of milkfat is weakening. [9]

U.S. nutritionists call for limits on saturated fat intake to be lifted. [10]


Full-fat dairy consumption could reduce risk of type 2 diabetes. [13]


Vit. D & Calcium intake linked to reduced Type 2 Diabetes [15]