



THE IMPORTANCE OF NUTRIENT-RICH FOODS IN PREVENTING OBESITY

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Foods and diets that are energy-rich but nutrient-poor have been associated with obesity and weight gain. By contrast, nutrient-dense diets of lower energy density have been linked with better weight management and with weight loss. Improving the nutrient density of the diet – as opposed to merely reducing empty calories – may be a promising strategy for obesity prevention and control. Observational studies suggest that diets of obese persons are not necessarily higher in calories but are often lower in some essential nutrients.

To be successful, new strategies for obesity prevention should identify foods that are nutrient-rich, affordable, and appealing. Our analyses of "What We Eat in America" dietary surveys have focused on the interrelations between calories, nutrients, and cost. First, we explored the relative contribution of 9 major food groups to energy and nutrient intakes and to diet cost. Nutrient density of individual foods was calculated using the Nutrient Rich Food Index, based on 9 nutrient to encourage and 3 nutrients to limit. The cost in dollars of meeting 10% Daily Value for a particular nutrient was the principal measure of diet cost. Despite their low energy contribution (10% – 13% of energy), milk and milk products contributed 47% of calcium, 42% of retinol, and 65% of vitamin D to the diets of children and adults. Milk and milk products were among the top sources of riboflavin, phosphorous, and vitamin B12. Cost analyses showed that milk and milk products were by far the lowest-cost source of dietary calcium and were among the lowest-cost sources of riboflavin and vitamin B12. Vegetables and fruit were the lowest-cost sources of vitamin C, whereas dry beans and legumes were the lowest-cost sources of fiber.

Studies on social disparities suggest that highest obesity rates are observed among groups with lower incomes, lower education, and in the most deprived neighborhoods. Helping consumers identify affordable yet nutrient-dense foods is one strategy for obesity prevention. Improving access to nutrient dense foods through improved distribution and retail is another. Obesity prevention strategies need to involve the food supply, food prices, and the local food environment.













