



Pills cannot replace real fruit, veggies

There is little controversy over whether fruits and vegetables promote health and prevent disease. The fact that most Americans don't eat enough fruits and vegetables is also well-documented. Some ingenious companies use these facts to promote dietary supplements made from dried extracts of fruits and vegetables.

We've been asked many times for our opinion on these supplements, especially about a product called Juice Plus+.

Question: Are these pills a reasonable replacement or supplement to consuming fruits and vegetables?

Answer: After searching the scientific literature to the best of our ability, our opinion is that these pills are not a reasonable substitute for real fruits and vegetables.

Q: How are these products made?

A: Two major Juice Plus+ products include one that is a blend of seven fruits and an-

other made from eight vegetables plus barley and oats. Based on the company's literature, these products contain what is left over when you remove water and most of the dietary fiber, natural sugars and sodium from the fruits, vegetables and grains. The resulting powder is then put in capsules.

Q: What is the nutrient composition of Juice Plus+?

A: The nutrient content information in the company's promotional literature and its Web site is a gibberish of comparisons with the nutrients in foods taken from various nutrient databases. For example, an "independent laboratory" analysis claims that apple juice has 47 times as much sugar as two of the fruit pills and 24 times as many calories. Since almost all the calories in apple juice are from sugar, these numbers conflict with the laws of physics.

Product literature also claims that the recommended daily dose of Juice Plus+ contains the

beta carotene of three raw carrots. Since some studies have reported increased health problems with supplemental beta carotene, most nutritionists recommend getting beta carotene in natural foods rather than pills.

Q: Has any research been conducted on the health benefits of Juice Plus+ products?

A: The Juice Plus+ promotional literature refers to a number of studies showing a variety of health benefits. However, none of the studies compare the effects of the product to the effects of increasing the intake of fruits and vegetables.

Q: Is Juice Plus+ cheaper than buying fresh fruits and vegetables?

A: A one-year supply for an individual is about \$600. We think it is better to spend the money on fruits and vegetables clearly known to be safe and effective for long-term use.

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