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An Apple a Day?



My nephew absolutely loves apples. And who can blame him?! He used to eat just about anything you put in front of him without much hesitation, but like many 4-year-olds, he is beginning to become more selective in the foods he eats, showing his taste preferences and overlooking some of the “less-desirable” foods, favoring some of the sweeter options including apples, apple juice, and applesauce.

It seems that this is a common theme across the American population. In fact, in a

2015 study investigators determined that whole apples make up about 20% of the total fruit intake of children aged 2 to 19 years old, making it the most commonly consumed whole fruit.¹ The second largest source of fruits, coming in at around 10%, was fruit juices including apple and citrus juices. This study highlights the fact that not only are fewer than 40% of children eating enough fruit on a daily basis, but when they do eat fruits it is generally only a couple types of fruit with apples dominating.

But why is this a problem? Doesn't “an apple a day keep the doctor away?” The problem is that an apple, or any other individual fruit, contains a unique nutrient profile that

might be high in some nutrients and low in others. One of the major benefits of a diverse diet is that it allows you to get a wide variety of essential nutrients so you get the whole spectrum of vitamins, minerals, antioxidants, and other nutrients that your body needs.

When a person predominantly consumes apples, they miss out on the beneficial nutrients found in grapes, berries, pineapple, bananas, tomatoes (yes they're a fruit!), peaches, melons, etc. For example, apples do not contain the potent antioxidant trans-resveratrol that is found in grapes, or the antioxidants hydroxytyrosol and oleuropein found in olives (also a fruit). Apples do not contain lycopene, an antioxidant that





promotes good eye health that is found in fruits like watermelon, tomatoes, papaya, and grapefruit. There are countless nutrients with proven health benefits found in fruits and vegetables that cannot be obtained from apples, and there are likely health promoting compounds found in apples that cannot be obtained from other food sources. The point is that we need a diverse selection of fruits and vegetables in our diet.

One study looked at how the diversity of fruit and vegetable selection related to geography as well as the concentration of several key nutrients in the diet. They found distinct differences in the levels of key dietary antioxidants based on the predominant fruits and vegetables being consumed within an area. One of the key findings they found was that people eating more than five servings of fruits in a day might still have lower intake of some key nutrients compared to someone eating fewer servings.² That is to say, someone that eats six apples every day would be consuming far less trans-resveratrol and Vitamin C than

someone alternating between eating a handful of red grapes on some days and an orange on other days.

The significance of this finding is that even if you eat the daily-recommended intake of fruits and vegetables (studies indicate that most Americans do not) you still might be shorting yourself of key nutrients that your body needs if you do not have enough variety in your selections.²⁻⁴ It is understandable that some people might not have access to a wide vari-

ety of fruits and vegetables, or their taste preference may limit what they eat. This is especially true in the case of children, including my nephew, and other picky eaters that just want to eat an apple and nothing else. It reminds me of the old saying, "You can lead a horse to water, but you can't make it drink." This is when the use of well-designed dietary supplements like Small Molecule Technologies can be extremely useful to improve the diversity of nutrients in the diet.^{3,5,6}

Whole Fruit, Juice, and Smoothies

Most dietitians and medical professionals will tell you that it is better to consume whole fruits/vegetables instead of juices. Juices made from 100% fruits and vegetables still provide a significant amount of nutrients, but the juicing process leaves behind most of the beneficial fiber found in whole fruits and vegetables. Smoothies are perhaps better because they



incorporate the entire fruit, including all of the fiber and pulp. Both juices (even 100% fruit juices) and smoothies tend to contain a high amount of sugar, especially if they have been sweetened with natural sugars or honey. Juices are composed primarily of water and sugar, making them strikingly similar to soft drinks both in nutritional profile and potential health risks. This is concerning because approximately 30% of children's fruit intake comes in the form of juice versus whole fruits.¹ This could be one reason why fewer than 3% of Americans are getting adequate amounts of dietary fiber on a daily basis.⁶

Small Molecule Technologies Prebiotic Fiber can easily be added to both juices and smoothies to increase the fiber content without changing the flavor profile. Prebiotic Fiber can also help to mask bitter tastes in juices and smoothies including those of some vegetables and natural zero-calorie



sweeteners like stevia. The digestion-resistant maltodextrin used in Small Molecule Technologies Prebiotic Fiber has also been shown to help keep blood sugar levels lower after a meal.^{7,8} Adding Prebiotic Fiber to your family's juices and smoothies is a great way to bump up the nutritional value without them even knowing it!

Fun Fact: Research has shown that eating a whole apple instead of processed forms such as apple juice and applesauce provides more "food satisfaction," meaning it's more enjoyable to eat and better at reducing feelings of hunger. They found that people eating one medium apple 15 minutes before a meal lowered the aver-

age calorie consumption by as much as 15%!⁹ The improved food satisfaction is likely due, in part, to the higher fiber content in the whole fruit, but also because it takes longer and requires more bites and chewing to eat a whole apple versus drinking a glass of apple juice or portion of applesauce. However, this effect is likely not just seen with apples. In fact, there have been similar findings from the addition of other healthy high fiber and high nutrient foods before a meal including green-leafy salads.¹⁰

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