

Eating Potatoes As Part Of A Healthy Diet Can Support Nutrition Needs During Pregnancy

BY MITCH KANTER, PHD

Almost all the available nutrition literature indicates Americans fail to meet daily fruit and vegetable recommendations. By doing so, they're missing out on several key nutrients, particularly certain vitamins, minerals and fiber. This can be an especially important issue for women who are pregnant, or hoping to become pregnant. It is well known that a mother's health and dietary choices, particularly during the first trimester of pregnancy, influence the health of their babies. However, research on the nutritional status among women of childbearing age (19-50) doesn't paint a very positive picture.

Recent studies indicate women in this age range in the United States are not meeting nutrient intake guidelines, particularly women of color or those in lower socio-economic groups. In fact, a study commissioned a couple of years ago by the Alliance for Potato Research and Education (APRE) using NHANES data (NHANES is one of the largest and most respected ongoing nutrition/health databases in the world) suggested women between the ages of 19-50 consumed only half of the recommended servings of vegetables per day (1.43 cup equivalents/day vs. the current daily recommendation of 2.5-3 cup equivalents). Further white potato consumption averaged about 2 cups per week; the recommendation for starchy vegetables is 5-6 cups per week.

As one would expect, this less-than-optimal intake of vegetables leads to lower-than-recommended intakes of important nutrients including potassium, calcium, magnesium, iron, folate and dietary fiber.

Why Potatoes?

While protein and fat have generated significant attention among macronutrients in recent years, the value of carbohydrates in the diet is often overlooked. And, at a time when the overall diet should be considered (vs. individual foods), potatoes' nutritional value is sometimes misrepresented because of the lower nutritional value of foods often consumed with some forms of potatoes. Further, potatoes are much more than a source of carbohydrates (though, it should be pointed out, carbohydrates are

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an important energy source for pregnant women as well as their babies in the womb), and they certainly shouldn't be vilified for "the company" they sometimes keep.

Potatoes are a rich source of vitamins B-6 and C. They are also high in folate, a key vitamin during pregnancy that is important for normal fetal brain and spinal cord development. One medium size, skin-on potato contains just 110 calories, is one of the best natural sources of potassium (boasting more potassium than a banana), and contains about 4-5 grams of dietary fiber. Further, the protein quality of a potato is higher than most any other vegetable, and is as high or higher than many animal protein sources. And, it should be remembered that potatoes contain negligible amounts of fat and sodium, and no cholesterol.

Newer research indicates cooking preparation can impact the nutritional value of a potato as well. Many varieties of potatoes, when cooked and then cooled, produce a compound called resistant starch (a fiber-like compound that purports to promote several health benefits, including greater satiety after a meal and, possibly, lower blood lipid levels

and a decreased risk of developing diabetes and other related conditions).

So, for a variety of reasons, potatoes can be an excellent source of nutrition for an expectant mother, or a woman who hopes to become pregnant in the future. With the diets of women of childbearing age clearly lacking a number of nutrients of concern, regular potato consumption, as part of a healthy overall diet can be an excellent way to make up for nutrient shortfalls.

That said, per capita potato availability in 2017 was about 33.4 pounds, off 1 percent from 33.6 pounds in 2016, and down 9 percent from 36.8 pounds in 2010. To a large extent, this is attributable to the aforementioned high protein, low carb trend that has been so popular in recent years. For women of childbearing age, however, adherence to a low carb diet makes it difficult to attain the nutrient levels so important for sustaining a healthy pregnancy. Encouraging consumption of all vegetables, including white potatoes, prior to and during pregnancy can help to address the nutrient gaps so prevalent in women of childbearing age.



Mitch Kanter, PhD, is the chief science officer with FoodMinds, a division of Padilla, in Chicago IL. He leads nutrition research and scientific projects and programming for FoodMinds clients. He also leads the FoodMinds Global Expert Bench, a group of nutrition scientists and technical communications experts from around the world who provide strategic counsel to FoodMinds clients on various international projects. During his 25-plus years in the food industry, he has served in various technical leadership roles for a number of multinational companies.

The author serves as a paid consultant to the Alliance for Potato Research & Education (APRE) through his work at FoodMinds. APRE supports nutrition research and science education to advance understanding and acceptance of the role of potatoes in healthy lifestyles.

Worth Studying Other Produce Items Consumed By Pregnant Mothers

BY JIM PREVOR, EDITOR-IN-CHIEF, PRODUCE BUSINESS

Mitch Kanter's piece explaining the nutritional benefits that potatoes can offer pregnant women is fascinating, filled with many nutritional insights that often are overlooked. For the industry as a whole, though, the truth is that similar pieces could be written about many produce items. If we were to expand our scope of interest, from expectant mothers to children, the elderly, people with diabetes, on and on — we could write even more.

Indeed, studying the whole issue of the *in-utero* experience might well be worth the trouble.

At the New York Produce Show and Conference, we invited a very intriguing speaker named Gabriella Morini, who is an Assistant Professor at the University of Gastronomic Sciences in Pollenzo, Italy. She gave a fascinating presentation, which we wrote about in an online piece in *PRODUCE BUSINESS* sister publication, *PerishablePundit.com*. She explained her presentation this way:

I will discuss the function of the sense of taste; the influence of taste in food preferences and food choices and therefore on nutrition and health.

My research makes the case that vegetables are the best trainers or the optimum way to educate your sense of taste. It is critical to introduce vegetables in the diet as early as possible, not only in children but even during a mother's pregnancy, to influence and condition taste receptors in order to establish good eating habits and good health that will last in the long term.

In the same piece, she stressed the importance of early intervention in the development of taste:

Scientists have been working on studies to show that if you get people used to eating vegetables at a young age, it will change their taste preferences. There is also evidence that when a mother eats vegetables during pregnancy and breast feeding, it impacts a gene of taste preference

We can only say that it is fantastic that some individual items, such as potatoes, have been studied and found so good for mother and child. We suspect that if similar research was done on many other produce items, they would also find good things.

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The problem is that it is very difficult to change habits. We are not koalas, so we can learn what to eat and train our genetic system. Now, there are scientific papers to show that the best chance for success is to start with children or even better with pregnant mothers.

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The best time to act is when a woman is pregnant. She pays very much attention to her health and will be receptive to information on what she should eat and why it is so important. Lipids, carbohydrates and fats are present in any foods, but there are antioxidants and nutrients in vegetables that are important to human development.

Just as studies show that the music children hear during pregnancy can be influential, research shows that those introduced early to vegetables will gravitate to those tastes. In Italy, there was a concern that when a mother was eating a lot of garlic while breastfeeding, children weren't eating meat. That's not the problem now. We need food less rich in easy calories.

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The produce industry organizations and institutions tend to speak of the industry as one entity.

But when it comes to health, not all produce items are created equally, and the health imperative to increase consumption is not a uniform problem across all items.

Yes, there is room to grow the consump-

tion of snack fruits, and health would be likely improved if children foreswore cookies and cakes for clementines, grapes, apples, etc. The big shortfalls in consumption, though, is vegetables and, especially, more bitter vegetables.

But the science as to whether a mother's consumption of particular items when pregnant affects the tastes of children after they are born or the tastes of children when they grow to adulthood is very uncertain.

It is a difficult test to do because people grow up in certain cultures, and it is almost impossible to separate food from the culture. In other words, there are no studies of children born from Eskimo mothers who convert to eating the Mediterranean Diet with lots of garlic and then go back to serving their family a normal Eskimo diet as part of their culture. No one has tested these Eskimo children at 18 to see if they eat more garlic than normal Eskimo children.

While the industry figures out how to fund such studies and the academics figure out how to make the studies valid ... as we seek answers to broader questions as to what age is ideal for nutritional intervention, we have to be immediately concerned with the health of pregnant women and the babies they will bear. That is why, say, pre-natal vitamins are universally recommended.

What women eat is just as important. We can only say that it is fantastic that some individual items, such as potatoes, have been studied and found so good for mother and child. We suspect that if similar research was done on many other produce items, they would also find good things.

So, as we pursue research, the safe course is a diverse diet rich in fruits and vegetables.