

By Donna Krug, Cottonwood District Director and Family and Consumer Science Agent

Introduction

Crispy, crunchy, colorful, and curiously delicious — all are words that describe a wide variety of vegetable, fruit, and whole grain dishes. The body's nutritional requirements can be adequately met by consuming plant-based foods. Most plant-based foods are naturally low in calories and fat. Couple that fact with the high amount of antioxidants and fiber found in plants and a strong case is made for putting more plants on your plate.

What ARE we eating?

On average, adults living in the United States consume almost 600 calories per person beyond what is needed each day for growth, maintenance, and physical activity. This estimate is based on 2013–2016 data from the U.S. Department of Agriculture.

The estimated number of calories needed by the average adult is 2,200 each day. The increase in calories eaten beyond those needed for growth, maintenance, and physical activity explains why the number of overweight children and overweight and obese adults in the U.S. is increasing.

Think about it. When our stomachs are empty and our schedules are full, we tend to grab and eat. Chances are, there is not much thought as to how nourishing or even how satisfying the foods really are. Then, when we gain a few extra pounds, we look to quick-fix solutions for help. Instead, why not turn to a diet with more plants that is full of nutrients, low in calories, and very satisfying?

The benefits of consuming more plants are many

Weight control:

Many factors are identified as causes for weight gain. An article from Harvard Health Publishing suggests



the balance of calories stored and burned depends on genetic makeup, the level of physical activity, and how many calories the body burns while at rest. Weight is maintained when calories consumed in a day are consistently burned. Weight gain occurs when more calories are consumed than expended.

Vegetables, fruits, legumes, and whole-grain foods typically provide a feeling of fullness with fewer calories, compared to other types of foods. Putting more of these kinds of plants on your plate can make it easier to manage your appetite and maintain body weight.

High dietary fiber benefit:

According to the Dietary Guidelines for Americans, 2020–2025, dietary patterns that do not meet recommended intakes of fruits, vegetables, and whole grains contribute to low intakes of dietary fiber. More than 90 percent of women and 97 percent of men in the U.S. do not meet recommended intakes for dietary fiber.

Dietary fiber is a complex form of carbohydrate. Several decades of studies have confirmed the health benefits of eating a fiber-rich diet. Only plant foods contain fiber. Specifically, diets rich in foods

“Plant-based diversity is in fact so powerful, so life – and health – changing, that it should be our Golden Rule of eating.”

~ Dr. Will Bulsiewicz
Fiber Fueled

containing fiber — such as fruits, vegetables, and whole grains — may reduce the risk of coronary heart disease and improve regularity.

Chronic disease management:

Consuming a diet featuring more plants is good for your health — today **and** tomorrow. Complex carbohydrates are easy to digest and the antioxidants that are present in plants help strengthen your body’s immune system. Dr. T. Colin Campbell, long-time Cornell University researcher, found that many people with heart disease, diabetes, cancer, and various autoimmune diseases have been able to alleviate their symptoms by eating more whole grains, vegetables, fruits, legumes, nuts and seeds and consuming fewer solid and added fats, added sugars, and refined grains.

In his book *Fiber Fueled*, gastroenterologist Dr. Will Bulsiewicz shared this insight about plant-based diversity: Evidence indicates that to strengthen the body’s own defenses against chronic diseases we need to eat the greatest possible variety of vegetable, fruit, and grain dishes.

Plant Based Diet Q & A

Q: Will I get enough protein if I eat more plants?

A: A wide variety of plant-based foods provide protein (See Table 1). Most people would benefit from eating more legumes, whole grains, nuts, and seeds, and eating fewer protein-rich foods containing saturated fats or added fats. A common misconception about dietary protein is the belief that large amounts of it are needed for good health. The DRI (Dietary Reference Intake) is 0.36 grams of protein per pound of body weight. This amounts to 56 grams per day for the average sedentary man and 46 grams per day for the average sedentary woman.

Q: Won't eating carbohydrates found in plant foods make me fat?

A: A diet rich in complex carbohydrates such as fruits, vegetables, and grains, prepared with minimal processing, is not “fattening.” Rather, the overconsumption of refined carbohydrates, added

Table 1. Plant protein

Food	Amount	Amount of protein
Edamame – boiled soybeans	1 cup	31.3 g
Lentils, cooked	1 cup	17.9 g
Large white beans – cooked	1 cup	17.4 g
Kidney beans – cooked	1 cup	15.3 g
Black beans, cooked	1 cup	15.2 g
Walnuts	1 ounce	15.2 g
Pinto beans, cooked	1 cup	15.4 g
Chickpeas (Garbanzo beans)	1 cup	14.5 g
Fava beans – cooked	1 cup	12.9 g
Tofu, firm	4 ounces	11 g
Quinoa, cooked	1 cup	9 g
Bagel	1 medium	9 g
Peanut butter	2 tablespoons	8 g
Almonds	¼ cup	8 g
Soy milk	1 cup	7 g
Sunflower seeds	¼ cup	6 g
Cashews	1 ounce	5 g
Whole wheat bread	2 slices	5 g
Brown rice, cooked	1 cup	5 g
Spinach, cooked	1 cup	5 g
Broccoli, cooked	1 cup	4 g

sugars, and fats contributes to excess weight gain. For example, 1 cup of mashed potatoes contains 130 calories. Add 1 tablespoon of butter and you have added 100 calories. But the calories from the butter do not fill you up, as it does not add bulk to the food. The key to eating well, being full, and being completely nourished is to eat foods that are nutrient-dense.

Q: My kids hate vegetables, so if we try this, won't I be throwing away a lot of food?

A: Do your kids really hate vegetables or have you given them a chance to love them? In the curriculum *Food is Elementary*, by Dr. Antonia Demas, students are allowed to first smell the food and then slowly taste new, whole foods. When kids are involved in selecting and preparing vegetables they are more likely to eat them. One youngster wrote on his class

evaluation, “I have changed my favorite food from candy to broccoli.” Try preparing vegetables in a variety of ways, from raw, to lightly steamed, to stir fried. Children follow adult examples, so make sure they see you enjoying your veggies too.

Q: How does an athlete perform when eating more plants?

A: Athletes pay a lot of attention to their nutritional needs because they want to get the most out of their bodies, and they realize what they choose to eat makes a difference in achieving peak performance. According to Roberta Duyff, RD, author of the *Academy of Nutrition and Dietetics’ Complete Food and Nutrition Guide*, 5th edition, a vegetarian approach to eating is flexible enough to provide sufficient fuel and nutrition for sports. Campbell’s research concludes that eating nutrient-dense foods helps generate health and a sense of well-being both physically and mentally. A registered dietitian nutritionist who specializes in sports nutrition can provide a personalized eating plan emphasizing plant-based foods that meets the individual needs for their sport.

Q: It looks like eating a more plant-based diet means cooking from scratch. “I just do not have enough hours in the day to prepare these dishes!”

A: While it is true preparing some grains and legumes takes some prior planning, most are quite easy to prepare. Beans or grain may be soaked overnight and cooked while getting ready for work in the morning. With those items cooked, a plant-based meal can go together in a matter of minutes. Lentils, which are a great source of protein, do not require soaking, so can be prepared quickly. Canned beans are a good alternative when preparation time is limited. And don’t forget that many vegetables and virtually all fruits may be enjoyed raw!

Q: I don’t have a large budget for groceries so how can I afford to buy more grains and fresh produce?

A: Pound for pound, purchasing fresh produce and grains is less expensive than buying meat or packaged convenience foods and most foods with added fats and sugars. The health benefits are countless and may even result in medical cost savings. Another tip for saving money on groceries is to purchase fresh produce that is in season and locally grown whenever possible. Other economical options include frozen and canned vegetables. While people argue that the cost of fresh produce and grain products is high, it depends on perspective. A cup of coffee or 20-ounce soda and a pastry can cost \$6 or \$7. In contrast, a container of pre-washed salad greens and a 2-pound



package of brown rice would cost about the same amount, but the salad and rice can be consumed by several people.

Q: Aren’t beans considered an “incomplete” source of protein?

A: Beans are sometimes referred to as an “incomplete” protein since they do not provide one of the essential amino acids needed from food for building protein in the body. In actual practice, this is not a concern. Grains (which lack a different essential amino acid) provide the amino acid missing from dry beans and vice versa. Together, they complement each other. Examples of complementary protein include peanut butter on whole wheat bread, or beans in a whole grain tortilla. According to the *Academy of Nutrition and Dietetics’ Complete Food and Nutrition Guide*, 5th edition, it is not necessary to eat complementary sources of protein together at the same time. Your body makes its own complete proteins if you eat a variety of plant foods — legumes, nuts, seeds, grains, vegetables, and fruits — and enough calories throughout the day. Protein quality becomes an issue when calories are limited or when they come mostly from energy-dense, nutrient-poor food and drink choices.

Table 2. Transitioning to a healthier diet

Eat this	Instead of
Brown rice	White rice
Stone-ground 100% whole-wheat bread	Enriched white bread
Rolled oats	Refined grains and sugary cereals
Whole fruits	Fruit juice
Baked sweet potato	French fries
Whole grain flour tortillas	White flour tortillas
Legumes: lentils, peas and beans	Highly processed meal in a box
Air-popped popcorn	Cookies

Where to go from here

Many people simply live to eat. For improved health, now is the time to eat to live. Adopting a more plant-based diet requires a change in thinking. As research in nutrition has advanced, it has become apparent that there is room for improvement with the typical American plate. Consider including generous portions of vegetables, fruits, whole grains and lean protein choices at each meal. The options in Table 2 can give you an idea of where to start. This gradual transition to a plate with less high-fat and more nutrient-dense choices seems to be central in managing many of the health problems that concern us most.

Resources

Academy of Nutrition and Dietetics Complete Food and Nutrition Guide, 5th edition. Book by Duyff, Roberta Larson, MS, RD, FADA, CFCS, 2017, pages 52-59, 614, 775.

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<https://bookstore.ksre.ksu.edu/Category.aspx?id=24&catId=389&Page=1>

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MyPlate Kitchen. Visit MyPlate Kitchen, a USDA resource that gives the user the chance to save recipes into their own cookbook. Register for a free account at <https://www.myplate.gov/myplate-kitchen/recipes>. Then search recipes for ones you want to use for your family. Click the plus sign on the recipe to add it to your cookbook.

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