



Nutrition News

Feeding the world with knowledge

Spring is in the air!



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Potassium-Packed Produce vs. Diabetic Complications

Dietary Potassium May Lower Risk of Heart and Kidney Disease



It's no secret that fruits and vegetables are good for you. Loaded with vitamins, minerals, fiber and phytochemicals, fresh produce is a tasty package of nutrition for not a lot of calories. Fruits and vegetables are among the best sources of potassium, an essential nutrient that may be particularly beneficial to people with type 2 diabetes, says a 2015 study published in the *Clinical Journal of the*

American Society of Nephrology.

Japanese researchers monitored 623 patients with type 2 diabetes for about 11 years. At the beginning of the study, participants provided blood and urine samples, which were used to measure potassium excretion, a marker of how much potassium is in the diet. By the end of the study period, participants who had the highest potassium measurements at baseline had 67% less risk of cardiovascular disease, renal disease, and death, which are all complications of type 2 diabetes, compared with those with the lowest potassium measurements.

Results suggest that a potassium-rich diet may help protect heart and kidney health in patients with type 2 diabetes. This benefit may come from potassium's role in blood pressure control. Potassium-packed fruits and vegetables also contain phytochemicals, which have antioxidant and anti-inflammatory benefits and could also be influencers at play.

No matter the case, fresh fruits and vegetables are just what the doctor ordered. Replacing less healthy foods in your diet with fresh fruits and vegetables is a winning strategy for getting the vital nutrients your body needs and for managing weight, another important factor in diabetes control.

Spinach, sweet potatoes, squash, kiwi and bananas (yes, people with diabetes can enjoy bananas and other fruits) are top sources of potassium. Other foods include beans, salmon, quinoa, and almonds. Fill half your plate with fruits and vegetables

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- Oven Baked Banana Fries with Creamy Avocado Dip

at meals and aim to include at least 3,500 mg potassium in your diet each day, which can easily be done with this suggested menu. For a quick potassium-packed snack, make our [Oven Baked Banana Fries with Creamy Avocado Dip](#).

Fast Food or Fat Food?

Impulsivity Linked to Fast Food Frequency and BMI



After a long day at work, there is often little energy left to plan, shop for, and cook a nutritious homemade meal. How convenient—and sinfully delicious!—the drive-thru appears to be. If this sounds like you, ready to turn off the highway to the nearest fast-food joint, you may want to hit the brakes. A study from the *Journal of Academy of Nutrition and Dietetics* links this type of impulsivity to more fast food consumption and to greater BMI (Body Mass Index).

Researchers from Auburn University recruited 478 adults to complete an online survey assessing eating habits and impulsivity. Participants answered questions on how often and why they ate at fast-food restaurants. They also completed a quiz to determine impulsivity, defined as the tendency to choose immediate rewards over long-term benefits.

Results linked both frequency of fast-food consumption and BMI to greater impulsivity. People with the highest impulsivity ate at fast-food restaurants 19% more often than those with the lowest, and people who were obese showed the highest impulsivity. Though impulsive behaviors means opting for the immediate reward, just 12% of participants said fast-food tastes better and only 10% said it is cheaper than eating at home. What's rewarding about that?

People who eat away from home—at fast food restaurants or anywhere else—tend to take in more calories and have greater risk of obesity, diabetes, and heart-disease. Cooking at home may seem daunting, but weekly meal-planning can relieve the stress of scrambling together breakfast, lunch or dinner on even the most impulsive and hectic days. Use the weekend to plan your menu, make a grocery list, do the shopping, and do as much of the prep work as you can. Here are a few tips to make healthy eating a breeze:

1. Bake a batch of whole wheat muffins to have on hand for breakfast.
2. Cut fresh pineapple, cantaloupe, and mango and store in the fridge.
3. Roast large pans of vegetables to use in salads or as a quick side.
4. Prepare quinoa, brown rice or other whole grains.
5. Cook a pot of veggie chili and freeze in individual portions.
6. Stock up on veggies for quick weeknight stir-fry. Try our [Lemon Ginger Spring Vegetable Stir-fry](#).

BONUS: Once meals are set, aim to be less impulsive about snacks too. Instead of reaching for whatever is nearest when hunger hits, assess if a better option will be available in the future. A donut may sound satisfying while out running errands, but you can likely wait an hour and enjoy a banana and peanut butter at home. If you know you'll be out-and-about (or stuck in the office) all day, pack one of these healthful snacks to-go or keep them at your desk.

Resistance Training for the Brain

Biweekly Weight Lifting May Slow Brain Aging



If you thought lifting weights was just for gym rats and jocks, think again. People of all genders, sizes and ages can enjoy the benefits of lifting weights, which extend well beyond building muscle and strength. Biweekly resistance training may help slow the effects of aging in the brain, according to Canadian research.

For the year-long study, published in the *Journal of the American Geriatrics Society*, 42 Canadian women aged 65 to 75 years were divided into three groups. One group did resistance training once per week. Another group did resistance training twice per week, and the last group did twice-weekly balance and tone

classes. One month before starting and at the end of the trial, participants underwent MRIs to detect white matter lesions (WML), markers of damage to the brain. By the end of the study, those who went to one-hour resistance training classes twice per week had significantly less white matter lesion volume than the balance and tone group.

WML, common in about 85% of older adults, can increase risk of dementia and falls and be detrimental to quality of life. Diabetes, hypertension, and poor cardiovascular health are risk factors for WML, thus resistance training may be a promising strategy for keeping WML at bay by supporting overall health.

Strength training throughout adulthood and your golden years has ample benefits to health. A study from Spain found people over 90 who exercised with weights twice per week had an easier time walking and standing up, and had no falls after three months. A review in the *American Journal of Lifestyle Medicine* links strength training to reductions in anxiety, fatigue, pain intensity, osteoarthritis and fibromyalgia, and improvements in cognition, sleep quality and self-esteem.

Not sure where to begin? Consult a trainer at your local gym, or invest in some free weights and follow exercise DVDs or online tutorials at home. Speak with your physician before beginning any new exercise routine.

Artichokes for Magnesium

Dietary Magnesium May Lower Risk of Pancreatic Cancer



Spring is here and artichoke season is upon us. While we can't give enough praise for this delicious green vegetable, one of its greatest benefits may be the magnesium it provides. One medium artichoke packs a whopping 77 mg magnesium—19% of the daily value—for a mere 60 calories. We have previously discussed this mineral's vital impact on health. A study out of Indiana University adds to the evidence that we need more magnesium, suggesting dietary magnesium may be beneficial for lowering risk of pancreatic cancer.

Researchers followed 66,806 men and women aged 50 years and older for about 7 years. At the beginning of the study, participants answered questions about the foods that they typically ate and their health history. Researchers used the dietary information to determine daily magnesium intake. Throughout the study period, participants were monitored for development of cancer or death.

Compared to those who met their magnesium RDA, the group who got less than 75% of their RDA saw a 76% increase in development of pancreatic cancer. Every 100-milligrams-per-day decrease in magnesium intake was linked with a 24% increase in the occurrence of pancreatic cancer. Researchers suspect dietary magnesium may help lower risk of pancreatic cancer by also lowering risk of type 2 diabetes, a risk factor for pancreatic cancer.

“While more study is needed, the general population should strive to get the daily recommendations of magnesium through diet, such as dark, leafy greens or nuts, to prevent any risk of pancreatic cancer,” explains study leader Daniel Dibaba in a press release. Most Americans are not getting enough magnesium in their diets, so adding artichokes and other magnesium-packed foods like almond butter, spinach, butternut squash and potatoes is a good way to meet your needs.

Try our [Quick Steamed Artichokes with Lemon Dip](#) for a fast, tasty and seasonal way to get a good dose of magnesium onto your plate.

Plant Protein Power

Delicious Sources of Vegetarian Protein



Protein is a buzz word in the dieting world, but do you know how much protein your body actually needs? According to the National Health and Nutrition Examination Survey, the average American male takes in about 102 grams of protein per day, and the average for women is about 70 grams. The reality is, most people need about 0.36 grams of protein per pound of body weight per day—that’s just 61 grams for a 170 pound man!

Too much protein, especially animal protein, has been linked to infertility, cancer, and overall mortality. It’s a common misconception that vegetarians don’t get the protein they need, but there are plenty of protein-packed plants that don’t come with these risks. Vegetation proteins are also easier on the environment, wallet, and waist. We’ve rounded up some of the top plant protein sources that you can add to your daily diet.

Lentils: They may be little, but lentils are packed with protein—just one cup contains 18 grams. Lentils are also a great source of complex carbohydrates and fiber to provide you with plenty of energy and fill you up without filling you out. They are extremely versatile and are commonly used as the main ingredient in curries, soups, and stews. They can even be used to make vegetarian meatballs, like in our recipe for [Lentil “Meatballs” with Kale Pesto](#).

Black Beans: Beans have been a long-standing staple in the kitchen, and it’s easy to see why. Just half a cup of black beans packs about 8 grams of protein as well as 7.5 grams of fiber for just 114 calories.

Black beans also pack anthocyanins, an antioxidant compound with anti-inflammatory effects. Although they are perhaps best known for their prominent role in Latin and Hispanic foods, black beans can also be used to make burgers and brownies. [Black Bean Avocado and Lettuce Bowls](#) is an easy dish the whole family will love.

Nuts and Nut Butters: Get nutty! A 2-tablespoon serving of nut butter or a ¼ cup serving of nuts contains about 7 to 9 grams of protein. Nuts make a perfect snack because they are easy to pack and you only need a handful to feel satisfied. Make your own trail-mix by combining your favorite nuts and dried fruit or top off your salad or oatmeal for an

added boost of protein. You can also add nut butter to smoothies—try [The Tropics](#) made with pineapple, banana and almond butter.

Quinoa: Looking for something new? While quinoa is technically a seed, it is most often used like a grain in the kitchen. One half-cup serving has 7 to 9 grams of protein. Substitute quinoa for rice or pasta, mix it into a salad, or try it for breakfast topped with almond milk and berries. [Quinoa and Asparagus Salad](#) is the perfect dish for spring.

Soy: Soy products, including tofu, tempeh, and edamame are well known substitutes for meat. Tofu has a smooth, silky texture that soaks up flavors well—experiment with your favorite spices and marinades! Edamame, soybeans harvested at an early age, are delicious straight out of the pod or shelled in salads, like in our recipe for [Spring Green Shoots](#).

Stay Fit, Protect Lungs

Greater Cardiorespiratory Fitness May Lower Risk of Lung Cancer



Have you ever started running, biking or swimming so fast that you need to stop and catch your breath? This is where you reach your $VO_2\text{max}$, the maximum amount of oxygen the body can take in and use during exercise and a useful way to measure cardiorespiratory fitness. A higher $VO_2\text{max}$ is beneficial for athletes who need to keep going far and fast, but the benefits may extend beyond the finish line of the race. A study from Finland finds greater cardiorespiratory fitness may help protect against lung cancer.

For the study, published in the *Journal of Science and Medicine in Sport*, 2,305 men ages 42 to 61 years exercised until maximum exertion on a stationary bike, with the workload getting harder the longer they rode. Researchers measured oxygen consumption and determined their cardiorespiratory fitness by measuring riders' $VO_2\text{max}$.

About 20 years later, researchers checked in on participants' health. Men who had the highest $VO_2\text{max}$ had a 31% reduced risk of lung cancer compared to men with the lowest $VO_2\text{max}$. Researchers attribute this effect to the benefits of physical activity: improved immune function, energy balance, and healthy weight management.

Age, gender, and genetics play a role in determining $VO_2\text{max}$, but your lifestyle choices play a role too. You can increase your cardiorespiratory fitness by maintaining a healthy weight, working out regularly, and, perhaps most importantly, not smoking. Mix up your exercise routine to reap the greatest benefits. Vary longer cardio sessions with shorter, more intense interval sessions each week. You will strengthen your heart, muscles and lungs; improve your oxygen efficiency; and potentially reduce your risk of lung cancer and other chronic diseases.

BONUS: Want to incorporate interval training into your exercise routine? Research published in *Medicine & Science in Sports & Exercise* suggests high-intensity interval training (HIIT) may actually feel easier than continuous exercise while reaping the same caloric burn.

FEATURED RECIPE

Oven Baked Banana Fries with Creamy Avocado Dip

Ingredients:

- 4 firm DOLE® Bananas
- Olive oil cooking spray
- salt to taste, divided
- chili powder, to taste
- ground cumin, to taste
- 1 ripe avocado, peeled and pitted
- 1 clove garlic, peeled and minced
- juice from ½ lime

Directions:

1. Preheat oven to 375°F. Line a baking pan with parchment paper and spray with olive oil spray.
2. Peel bananas and cut in half crosswise. Cut each piece in half lengthwise. Set banana, cut side down and slice into wedges of desired thickness. Arrange wedges on the baking sheet.
3. Spray wedges with olive oil spray and season with salt, chili powder and cumin. Bake 20 minutes. Use a spatula to flip wedges. Continue baking 15-20 minutes.
4. Meanwhile, combine avocado, garlic, salt and lime juice in food processor. Cover; blend until smooth. Serve with warm banana fries.



Makes: 6 Servings
Prep Time: 10 minutes
Total: 50 minutes

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