



Nutrition News

Feeding the world with knowledge

Enjoy some
end of summer
sweetness



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Power of Pears

Pears May Help Manage Type 2 Diabetes



The saying goes “an apple a day keeps the doctor away” but research suggests eating pears just as often may also hold wisdom beyond delicious taste. For about 100 calories, a medium pear packs 5.5 grams of fiber and a bevy of healthful nutrients, particularly in the skin. A study published in *Food Research International* has uncovered ways in which pears may be a particularly sweet snack for those with type 2 diabetes.

Researchers from North Dakota State University tested Bartlett and Starkrimson (red) pears for their health potential. Laboratory analyses revealed both types of pears are high in phenolic compounds (including chlorogenic acid, catechin, epicatechin and quercetin) that may be beneficial in managing blood sugar and blood pressure by influencing carbohydrate metabolism. These compounds may also act as antioxidants to help protect cells against inflammatory damage. While both the skin and the pulp of pears contain phenolic compounds, analysis showed the skins have somewhere between six and thirteen times more.

Additional tests found other ways pears could benefit your health:

- Pears inhibit two different enzymes related to glucose metabolism, which is extremely important in preventing hyperglycemia (high blood sugar) for those with type 2 diabetes.
- The watery pulp of Bartlett pears showed anti-hypertensive potential by blocking an enzyme related to blood pressure.
- Pear juice has potential to inhibit *H. pylori* bacteria, linked to stomach ulcers and gastritis, without affecting healthful probiotic bacteria in the stomach.

Include pears in your menu year-round and eat the skin and the pulp to get the most nutrient-bang for your buck. Raw or cooked pears are delicious in both savory meals and sweet snacks. Combine the tastes of summer and fall with our [Roasted Pear and Parsnip Salad](#), made with pear, walnuts, pomegranate seeds and DOLE® Chopped Summer Garden Blend.

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BONUS: A 2013 study by Italian, U.S. and Greek researchers suggests an 18% reduced risk for developing diabetes if your diet resembles that of a low-GI version of the Mediterranean diet. “Go Mediterranean” by upping your fruit and vegetable consumption, getting most of your protein from fish and legumes and getting most of your fat from healthy sources like olive oil.

Anti-Cancer Olive Oil

Compound in Olive Oil May Help Kill Cancer Cells



The Mediterranean Diet is well known for its connection to health, and extra virgin olive oil is a significant part of this nutritious eating regime. Not only does extra virgin olive oil contain monounsaturated fats linked to heart health, it is packed with oleocanthal, a phenolic compound that may offer anti-cancer benefits according to researchers from Hunter College in New York City and Rutgers University.

This new research published in *Molecular & Cellular Oncology* examined both cancerous and non-cancerous human pancreatic, breast and prostate cells. After applying oleocanthal to the cells, cancer cells were killed in as little as

30 minutes, while no damage was done to the non-cancerous cells. Investigation revealed oleocanthal acts by puncturing the membrane of lysosomes (waste-containing sacs) in cancer cells. Once these sacs are ruptured, destructive enzymes are released thereby killing cancer cells with their own enzymes.

Though more studies are needed before this can be considered a treatment for cancer, the results demonstrate yet another reason to use extra virgin olive oil in your cooking and meal preparation. Use extra virgin olive oil to make marinades for fish and poultry or for tasty homemade salad dressings. Our [Citrus Ginger Vinaigrette](#) can be used to add fresh flavor to green salads or as a topping for grilled salmon or asparagus. Extra virgin olive oil may have potential health benefits, but remember it is calorie-dense (1 tablespoon = 120 calories and 13.5 grams of fat) so enjoy it in moderation.

BONUS: Interested in the benefits of other types of oils? Check out our oil roundup in [Beyond Olive Oil](#) from the Dole Nutrition Institute.

Fight Back Pain with Pilates

Pilates Method Eases Chronic Lower Back Pain



A favorite exercise among fitness-enthusiasts and celebrities, Pilates is the ultimate workout for toning muscles and achieving a long, lean physique—but there’s more to Pilates than improving outward appearances. Researchers from Brazil have shown Pilates may also be the ideal exercise for easing chronic lower back pain when combined with other treatments.

For the 2015 study, sixty patients aged 18 to 50 years who were diagnosed with chronic lower back pain were divided into two groups. Both groups received anti-inflammatory medication for pain, but one of the groups also participated in 50-minute Pilates sessions twice a week for 90 days. At the beginning, middle and end of the program researchers assessed patient's perceived pain and disability due to back pain. By the end of the trial, the group who did Pilates saw a 30% improvement in pain compared with a 6% improvement in the group receiving only pain medication. The Pilates group also improved their daily function—such as ability to walk, climb stairs or bend over—by 36%, while the medication-only group improved by 13%.

Based on the six principles of control, centering, concentration, precision, breath and flow, Pilates originated in the early 1900s from self-defense instructor Joseph Pilates. The system involves sets of controlled movements aimed to work the body's "powerhouse" or core muscles of the abdomen, while improving muscle elasticity and joint mobility, resulting in total body strength. The exercises are performed on the ground with a mat, making it a low-impact workout that does not put pressure on joints or muscles.

If you are experiencing chronic lower back pain, speak with your physician about adding Pilates to your treatment plan. Even if you are pain-free, consider adding Pilates method to your usual workout routine. To give it a try find a local Pilates studio, check with your gym for classes or simply follow an online workout for mat Pilates at home.

BONUS: Yoga, another low-impact exercise, may benefit people with scoliosis. After less than seven months, patients who practiced the side plank pose every day saw a 40.9% improvement in spine curvature, while those who practiced the pose only four days per week saw just 0.5% improvement.

Taste-Great Produce for Kids: Part 2

Tips from Expert Chef Mark Allison



Following Taste-Great Produce for Kids: Part 1, we sat down with expert Chef Mark Allison, Director of Culinary Nutrition at the Dole Nutrition Institute, to talk about how he encourages his own children to be adventurous with fruits and vegetables.

Q: What is the first step in encouraging children to enjoy eating fruits and vegetables?

A: I have three very different boys, so I know how hard it can be to get kids to eat more fruits and vegetables—and this is coming from a chef! Getting the kids involved in shopping and cooking is extremely important. We start by

going to the grocery store and seeing the abundance of beautiful fruits and vegetables. The kids choose what they want to try. Back home in the kitchen, the kids wash, peel and slice the produce they chose, and I help them cook, flavor and taste the finished dish. Making dinner as a family is a great way to spend time together and an opportunity for the kids to learn a life skill and get excited about trying new foods.

Q: What are some of your favorite family meals that include fruits and vegetables?

A: One of our family traditions is pizza night. We arrange bowls of chopped up vegetables, and the boys have fun designing their own colorful "pizza faces" using veggies. We also make sauces and soups with pureed vegetables. For our homemade tomato sauce we add carrots, red peppers and garlic.

Q: Do you have any tips for adding more produce to children's' regular diets?

A: I try to incorporate some produce into every meal and snack, including dessert. Try juicing fruits and vegetables or using them for smoothies, milkshakes or ice pops. We combine bananas, strawberries and a little frozen yogurt to make a creamy strawberry shake, and like to freeze carrot juice with some plain yogurt in ice pop molds for a healthful treat. You can also sneak in more produce by making banana bread, sweet potato muffins, brownies with pureed spinach, or carrot cake. The whole family loves these foods, plus they pack nutrition, so it's a win-win situation that keeps everyone happy and healthy.

Q: What are some easy healthy snack ideas for kids?

A: We keep sliced vegetables in zip lock bags in the fridge for convenient, healthful between-meal snacking. The kids enjoy vegetables with hummus, ranch dip or low-fat yogurt. The hummus from Dole's [Grilled Vegetable Flatbread with Sesame-Banana Hummus](#) recipe also tastes great with fresh crudité's. Sliced apples or celery sticks with peanut butter is another favorite snack.

Q: Any last advice for parents?

A: It's going to be an uphill battle if you're trying to convince your child to eat more fruits and vegetables and you don't eat them too! Make mealtime a family affair, but don't force your children to eat foods they don't want to eat. Take your time in trying new foods and remember, a little at a time is better than none at all. Have fun with your food and over time the whole family will love to eat more fruits and vegetables every day.

I Heart Avocados

Avocados May Help Lower Cholesterol



From salads to sandwiches to smoothies, avocados are popping up everywhere in modern cuisine. Once an exotic delicacy, this creamy fruit can now be found at supermarkets, on menus and in kitchens nationwide. The avocado's surge in popularity may be partially due to its impressive nutritional profile. Avocados are high in monounsaturated fat, the good fat linked to heart health. Researchers from Pennsylvania State University and the University of South Australia suggest the avocado may offer more than just good fat when it comes to health.

In a study published in the *Journal of the American Heart Association*, 45 overweight adults ate three different cholesterol-lowering diets for five weeks each. The three diets were similar, except that they replaced saturated fats with carbohydrates, monounsaturated fat-rich oils, or one Hass avocado. At the beginning of the study and after each five-week diet period, researchers analyzed blood samples from each participant.

All three diets were successful in lowering LDL (bad) and total cholesterol, but the avocado diet yielded the most striking results. Compared with a typical American diet, the avocado diet lowered LDL cholesterol by 10% and total cholesterol by 8%, while the diets with carbohydrates and oils reduced LDL and total cholesterol by about 5% and 4%, respectively. The avocado diet also helped to preserve levels of HDL cholesterol, the "good" cholesterol that carries excess cholesterol in your blood and takes it back to the liver where it is broken down.

Researchers suspect it is more than just the healthy fats in avocados at work in lowering cholesterol. The avocado diet was more successful than the diet that included sunflower and canola oils, also high in monounsaturated fats, suggesting other compounds in avocados add to the effect. Avocados are nutrient-dense and are rich in phytosterols, compounds that inhibit absorption of cholesterol and help lower LDL and total cholesterol. One avocado packs over nine grams of fiber, also beneficial in lowering cholesterol.

Too much cholesterol in the blood can have several negative health effects, including heart disease and stroke. Inclusion of one avocado per day as part of a moderate-fat, cholesterol-lowering diet may be beneficial to your heart and overall health. Try using avocado in place of mayonnaise on sandwiches or in lieu of creamy dressing on salads. Avocado is a hearty addition to sushi rolls and tastes delicious in Asian cuisine. Our [Avocado Spring Rolls](#) made with DOLE® Chopped Asian Blend makes a tasty appetizer at parties or a light and refreshing lunch idea.

Brew Up a Longer Life

Drinking Coffee May Protect Against Death from Disease



Coffee lovers can grind, brew and sip away with joy! Nearly two years ago we reported a U.S study that found drinking coffee may lead to a longer life. Turns out this holds true worldwide—a 2015 study from Japan published in the *American Journal of Clinical Nutrition* adds to the evidence that a daily dose of java may be a wise idea for living long.

Researchers asked 90,914 Japanese adults questions on how much coffee they typically drink. They monitored participants' health for about 18 years, noticing an association between coffee intake and mortality. People who drank three to four cups of coffee per day had 24% lower risk of death compared with those who never drank coffee. Coffee drinking had the greatest protective effect against death from cerebrovascular (referring to the brain and its blood vessels), respiratory and heart diseases, with three to four cups per day lowering risk by 43%, 40% and 36%, respectively.

Despite its sometimes negative connotation, the caffeine in coffee may be partly to thank for these benefits. Caffeine can activate enzymes that support blood vessels and may even help improve lung function. Chlorogenic acid and pyridinium, two other compounds in coffee, could also be beneficial by helping to lower blood pressure and improve blood flow.

Results from this study suggest three to four cups of coffee (but no more) per day is what it takes for the greatest benefit. However, when it comes to health, not all coffee drinks are created equal. At today's modern coffee shop, this virtuous beverage is often weighed down by sugary syrups, whipped cream and artificial flavors. Enjoy your coffee black or with a splash of almond milk and you could sip your way to a longer life.

Nothing goes with coffee quite like banana bread. Whip up our [Zucchini Banana Bread](#) to enjoy with your morning cup of java and a side of fresh fruit.

FEATURED RECIPE

Grilled Vegetable Flatbread with Sesame-Banana Hummus

Ingredients:

- 2 cups halved DOLE Mushrooms
- 2 tablespoons olive oil
- 1 tablespoon lemon juice
- 1 teaspoon minced garlic
- 1/8 teaspoon chili powder
- 4 individual flatbreads

Sesame-Banana Hummus (recipe below)

- 1-1/2 cups DOLE Power Up Greens™ Baby Kale and Greens

Directions:

1. Toss mushrooms with olive oil, lemon juice, garlic and chili powder. Grill 2-3 minutes or until mushrooms soften. Keep warm.
2. Grill flatbread on both sides until heated through. Spread Sesame-Banana Hummus (recipe below) on one side of flatbread. Cover hummus with baby kale and greens and top with mushrooms. Serve room temperature.

Sesame-Banana Hummus:

1. Combine 1-inch knob peeled ginger, 1/4 cup sliced DOLE® Green Onion, 1/3 cup chopped fresh cilantro, 3 tablespoons tahini paste, 2 garlic cloves, 1 peeled ripe DOLE Banana, 1 cup small DOLE Cauliflower florets in a food processor or an emulsifier blender.
2. Process until smooth.
3. Remove and season with lemon juice, grated lemon peel, salt and pepper to taste.
4. Set aside until ready to use.



Serves: 4 Servings

Prep Time: 20 minutes

Cook Time: 10 minutes

EDITORIAL TEAM

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The material used as background for publications by the Dole Nutrition Institute (DNI) comes from peer reviewed medical literature, including basic laboratory studies and ongoing human clinical trials. Occasionally, we report on new discoveries, early-stage research of interest to the general public, acknowledging that such research is incomplete and findings are preliminary. The information from the DNI is not intended to replace expert advice, prescribed medications or treatment by a board certified medical doctor.

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