



Nutrition News

Feeding the world with knowledge



August 2016

Grapes for Your Gut

Grapes May Lower Obesity Risk and Promote Gut Health



It's no secret—we're gaga for grapes! Previous research has found grapes may be good for your bones, heart, and brain and components of grape seeds may be beneficial in managing weight. Now, research from the North Carolina Research Campus and University of North Carolina at Greensboro finds the same benefit may be true for the whole fruit.

For the study, published in the *Journal of Nutritional Biochemistry*, mice were fed a typical high-fat American diet with or without grape polyphenols (including anthocyanins) for 16 weeks. Mice that received the grape polyphenols gained up to 40% less weight than those that did not. Further analysis also revealed grape polyphenols helped improve insulin sensitivity and glucose tolerance, suppress inflammation, and beneficially alter gut microbiota (AKA friendly bacteria).

So what might be going on? "High fat diets normally trigger chronic inflammation in the intestines," explains Dr. Mary Ann Lila, Director of the Plants for Human Health Institute and coauthor of the study. "The inflammation can disrupt normal membrane structure and function, and can lead to inability of insulin to signal normally. What this study clearly demonstrated was that grape polyphenols work with natural microbes in our digestive system to create a favorable internal environment for gut health—depressing any low-grade intestinal inflammation, and removing any interference with normal insulin functioning."

Now we wouldn't say eating grapes gives you an excuse to eat an otherwise unhealthy, high-fat diet, but there is certainly evidence for adding red, purple or green grapes to your plate. Pair fresh grapes with peanut butter for a spin on PB&J or snack on frozen grapes for a cool and frosty summer dessert.

In this Issue:

- [Grapes for Your Gut](#)
Grapes May Lower Obesity Risk and Promote Gut Health
- [World of Flavors](#)
A Celebration of International Cuisines
- [Diabetes, Dementia Linked](#)
Diabetes Could Increase Risk of Dementia By 60%
- [Salads for Good Vision](#)
Eating Leafy Green Vegetables May Lower Glaucoma Risk
- [Fruit for Babies' Brains](#)
Eating Fruit During Pregnancy Linked with Better Infant Development
- [Running vs. Tumors](#)
Daily Exercise May Reduce Tumor Incidence and Growth

Featured Recipe



- [Red, White & Berry Salad](#)

World of Flavors

A Celebration of International Cuisines



This August, 206 nations from around the world will gather together and compete in Brazil, making this the perfect time to celebrate our world of eclectic flavors. Let's take a trip around the globe so that you can have a taste of international cuisine right in your home kitchen. First stop: Brazil!

Brazil What fresh local ingredients can athletes look forward to while visiting Brazil? Root vegetables like cassava (what tapioca is made from) and yams, and fruit such as açai, mango, papaya, guava, passion fruit and pineapple are found in dishes nationwide. Among the popular national dishes are vatapá, a shrimp stew made with finely ground peanuts; moqueca, a fish stew prepared with tomatoes, onions, garlic; and acarajé, a fritter made from black-eyed pea flour.

Chile Thanks to diverse climate and geography, Chile produces a wide variety of fruits and vegetables, and the long coastline provides an abundance of local seafood. Traditional ingredients include choclo (corn), potatoes, quinoa, olives, avocado and native fruits such as lúcuma and cherimoya. Quinoa salads and vegetable and fish stews are popular main dishes, while fruit is used in many desserts.

Morocco The main meal in Morocco is eaten midday, and lunches can last for several hours. Meals typically start with hot and cold salads such as taktouka, which is made with tomatoes and peppers. Next comes a tagine, a slow-cooked stew, and main dishes often include couscous, vegetables and poultry. Wheat bread is eaten at every meal and is used to pick up the food. At the end of the meal, mint tea is served with dessert such as seffa, a sweet couscous made with cinnamon and raisins.

Greece We often discuss the health benefits of the Mediterranean diet, and traditional Greek cooking incorporates plenty of nutritious foods. Spices such as oregano, mint, garlic, onion and dill bring flavorful life to fresh local ingredients including tomato, eggplant, potato, green beans, okra, green peppers, and onions. Heart-healthy olive oil is the primary fat in the diet, and fish is one of the main sources of protein. Popular vegetarian dishes include spanakorizo, made with spinach and rice; briám, stewed vegetables in tomato sauce; and aginares a la polita, an artichoke stew. Desserts typically include nuts, honey, and fruit.

India Though cuisine varies by region in India, vegetarianism is widespread throughout the country. Whole-wheat flour, rice and pulses such as lentils and chickpeas provide the backbone of the diet, while spices like cumin, turmeric, ginger and garam masala bring bold flavor. Available fruits and vegetables depend on the season, but popular choices are banana, mango, squash, eggplant and cauliflower.

Thailand Thai cuisine is complex and flavorful. Ingredients like fish sauce, curry paste, chilies, garlic, limes and herbs are used to balance sweet, salty, and bitter flavors in dishes. Recipes such as braised plantains with spices, vegetable curry, green papaya salad, broccoli salad and stir-fried greens are examples of plant-based Thai delicacies.

USA Back in the United States, celebrate with our patriotic **Red, White and Berry Salad** made with bananas, berries and the DOLE® Spinach Cherry Almond Bleu Salad Kit.

Diabetes, Dementia Linked

Diabetes Could Increase Risk of Dementia By 60%



Though the most important risk factors for dementia—age, family history and heredity—can't be changed, there are plenty of ways to help control risk for the disease. A 2016 study published in *Diabetes Care* examined how having type 2 diabetes may impact dementia risk.

Researchers reviewed 14 studies (totaling about 2.3 million people worldwide) that looked at the relationship between diabetes and risk of dementia. Analysis revealed having diabetes was linked with a 60% increased risk of developing dementia of any kind. For vascular dementia (a decline in thinking skills caused by blocked or reduced blood flow to the brain), the association was even stronger. Compared with people without diabetes, men with diabetes had a 70% greater risk for developing vascular dementia, compared with a 120% greater risk in women.

Though we can't say for sure why these two diseases are linked, it could be that conditions associated with diabetes, including hyperglycemia, inflammation, vascular changes, and insulin resistance, may contribute to the development of dementia. As for the greater risk in women compared with men, it could have to do with hormonal differences between sexes.

Lowering your risk for diabetes and risk for dementia can be as easy as adding more color to your diet. Eating a rainbow of fruits and vegetables ensures that your diet is rich in a wide variety of vitamins, minerals, and fiber, helping to keep you healthy and stabilize your blood sugar. Research has shown eating a Mediterranean diet can lower your risk of diabetes by about 18%, and piling your plate with potassium-packed produce could lower risk of diabetic complication by 67%.

Give fruits and veggies the starring role in your diet by incorporating them in as many snacks and meals as you can. Our [Tropi-Grill Salad](#) is a seasonal specialty that combines crisp Romaine lettuce, juicy pineapple, creamy avocado and protein-packed shrimp.

BONUS: Eat your greens to feed your brain. A study in the *Journal of the Academy of Nutrition and Dietetics* found women below the folate RDA of 400 micrograms had two times the risk of mild cognitive impairment or probable dementia. Try spinach, lettuce, artichokes and asparagus.

Salads for Good Vision

Eating Leafy Green Vegetables May Lower Glaucoma Risk



We're seeing green! Though aging takes a toll on eye health and vision, nutritious foods may play a defending role. A study published in *JAMA Ophthalmology* provides evidence for tossing up some salad to keep your eyes healthy.

Using data from the Nurses' Health Study and the Health Professionals Follow-up Study, Harvard researchers examined dietary information and eye health history of over 100,000 men and women aged 40 years or older. Specifically, researchers looked at daily vegetable intake and then calculated the amount of nitrate in their

diets (remember, nitrates from vegetables are not the same as nitrates from meat) and monitored for primary open-angle glaucoma (POAG), the most common form of glaucoma caused by a buildup of fluid pressure in the eye, potentially leading to irreversible damage and loss of vision.

Compared with those who ate the lowest amount of plant-derived dietary nitrates, those who ate the most had 21% less risk of any form of POAG. Green leafy vegetables seemed to have the biggest effect, especially kale, mustard greens, chard, romaine lettuce, and surprisingly, iceberg lettuce.

What's the connection? Dietary nitrates from leafy green vegetables may help regulate intraocular pressure and ocular blood flow, thereby keeping eyes healthy and glaucoma at bay. Previous studies have linked eating green vegetables with lower risk of glaucoma and cataracts. In addition to nitrates, leafy greens contain lutein, zeaxanthin and beta-carotene, all plant compounds that support overall eye health.

Salads aren't the only way to add more leafy greens to your menu. Lightly sauté greens in garlic and olive oil as a side dish, or add greens to casseroles, lasagnas and soups. For another unique spin on salad, try our [Salad Sipper](#) made with DOLE® Power Up Greens™ Baby Kale or DOLE Baby Spinach.

BONUS: A Chinese study found those with the highest versus lowest vitamin C intake had 19% lower risk of cataracts. Pineapple, strawberries, kiwifruit, guava, red bell peppers, broccoli, and Brussels sprouts are all excellent sources.

Fruit for Babies' Brains

Eating Fruit During Pregnancy Linked with Better Infant Development



“You are what you eat” is how the saying goes, and research suggests that for expectant mothers, the same may be true for their children. A 2016 study published in *EBioMedicine* finds infants do significantly better on developmental tests when their mothers consume more fruit during pregnancy.

Canadian researchers analyzed dietary information of 688 pregnant mothers, focusing how many fruit they ate per day (not including juice). About one year after their babies were born, researchers assessed and scored babies' cognitive development and behavior—things like memory, communication use, exploration and social behavior.

Much like fruit, results were sweet and simple: The more fruit the mothers ate during pregnancy, the better the babies' cognitive development at one year of age. Each daily serving of fruit moms ate during pregnancy was linked with a 2.38 point increase in babies' cognitive development score. Lycopene, the compound that gives watermelon, tomatoes, papaya and guava their red colors, seemed to have the greatest influence: For every 1 mg increase in lycopene consumed per day during pregnancy, there was a 0.14 point increase in cognitive development (a cup of watermelon contains about 7 mg lycopene).

Antioxidants like lycopene found in fruit may help improve learning and memory, and this may carry over to unborn children in mothers-to-be. Meeting your daily fruit requirements (about 2 cups for most women) is as easy as slicing banana into oatmeal, sprinkling berries in a salad, and enjoying fresh pineapple for dessert. For a summery fruit-filled

dish, try our [Blazin' Fruit Salad](#) made with grilled banana, pineapple and apricots.

BONUS: Exercise may boost baby's brains too. As little as 20 minutes three times per week during pregnancy led to improved mental development in newborns. Speak with your doctor before starting an exercise routine.

Running vs. Tumors

Daily Exercise May Reduce Tumor Incidence and Growth



We admit it: Running isn't easy for everyone, but the potential health benefits could be worth the sweat and strain. European research gives us another reason to lace up and hit the pavement, finding running may help to reduce tumor occurrence and growth.

In the 2016 study, published in *Cell Metabolism*, daily running was able to inhibit tumor onset and progression in laboratory mice. The greatest benefit came when the running regimen before tumor onset—up to 61% reduced tumor growth with four weeks of prior running.

Lab work found that exercise, in this case running, increases production of natural killer (NK) cells, components of the immune system that identify and destroy harmful tumor cells. NK cells act early and can act as a “spark” to activate other immune cells to help fight invaders. It's likely because exercise triggers epinephrine (aka adrenaline), which helps mobilize NK cells.

Running is a convenient and relatively affordable sport, but there are plenty of different ways to fit exercise into your day. Bike, swim, or round up some friends for a game of soccer or volleyball. Most experts recommend at least 150 minutes of exercise a week—that's just about 21 minutes a day, or just under 11 minutes twice a day. Squeeze in short sessions if you're pressed for time and start using the stairs and walking on your lunch break. Those minutes add up, and could improve your health.

FEATURED RECIPE

Red, White & Berry Salad

Ingredients:

- 2 DOLE® Bananas, peeled, and sliced into 1-inch rounds
- 1 pkg. (8.3 oz.) DOLE Spinach Cherry Almond Bleu Salad Kit
- 1 cup DOLE Blueberries
- 1 cup DOLE Raspberries
- 1 cup DOLE Strawberries, hulled and halved

Directions:

1. Heat grill over medium heat and spray with cooking spray. Grill bananas on each side until grill marks appear, about 6 minutes.
2. Combine spinach and vinaigrette from salad kit in a large bowl. Toss gently to combine. Top spinach with grilled bananas and berries. Sprinkle salad with sliced almonds and bleu cheese crumbles from salad kit packets.



Makes: 4 Servings

Prep Time: 15 minutes

EDITORIAL TEAM

Dole Nutrition Institute / Lead Editor: Nicholas Gillitt, PhD

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.

All Material 2016 Dole Food Company Inc.
Any reproduction without the express permission of Dole Food Company is strictly prohibited.

Connect with us online by going to: dole.com



Facebook.com



Twitter.com



Pinterest.com



Instagram.com