



Nutrition News

Feeding the world with knowledge

Happy Earth Day!



April 2017

10 A Day

Eating Ten Portions of Fruits and Vegetables Each Day Could Promote Longevity



Are you eating enough fruits and vegetables? The most likely answer is NO. The CDC estimates adults in the United States put produce on their plates just once or twice per day, a far cry from the 5 to 9 servings most experts recommend. Now, a 2017 study published in the *International Journal of Epidemiology* finds ten servings per day may be the key for longer life.

Researchers analyzed data from 95 studies from around the world that looked at the effect of fruit and vegetable consumption on risk of death from disease. The greatest health benefit came from eating ten portions per day (which is about 800 grams). People who reached this threshold saw 24%, 33%, 28%, 14% and 31% reductions in risk of coronary heart disease, stroke, cardiovascular disease, cancer, and all-cause mortality, respectively. With this profound effect, an estimated 7.8 million deaths could potentially be prevented every year if people worldwide ate ten daily portions of fruits and vegetables.

Fitting this much produce into your menu may seem challenging, but it adds up quickly if you include some color at every meal.

Breakfast: Top oatmeal with one medium banana (118 grams) and half a cup of strawberries (72 grams).

Snack: Cut a medium carrot into sticks (61 grams) and dip into hummus.

Lunch: Make a salad with three cups of spring mix (85 grams), half a cup of tomatoes (75 grams) and your favorite toppings.

Snack: Have a medium apple (182 grams) with almond butter.

Dinner: Bake a sweet potato (133 grams) and serve with a cup of roasted broccoli (91 grams) and salmon.

Total: 817 grams of produce

Hungry for more? Make our [Savory Fruit Compote](#) for a produce-packed dessert.

In this Issue:

- **10 A Day**
Eating Ten Portions of Fruits and Vegetable Each Day Could Promote Longevity
- **The Truth About Eggs**
A Discussion of Cholesterol and Why Eggs Can Fit a Healthy Diet
- **Iron and Exercise for Better Grades**
Normal Iron Stores and Better Fitness Linked to Higher GPAs in College Students
- **Stress Less, Sleep More with Bananas**
Prebiotic Fiber May Aid in Stress Reduction and Promote Restful Sleep
- **Celebrate Earth Day**
Why and How to Reduce Food Waste in Your Home
- **No Gym? Climb the Stairs!**
Brief, Intense Stair Climbing May Increase Cardiovascular Fitness

Featured Recipe



- **Savory Fruit Compote**

The Truth About Eggs

A Discussion of Cholesterol and Why Eggs Can Fit a Healthy Diet



In the past eggs got a bad rap, but today they're making a comeback. What happened in the last few years to put eggs back on the menu and is it really okay to crack an egg every day? The answer begins with a discussion of cholesterol.

Cholesterol is a waxy-like substance your body uses to make hormones, bile, cell membranes and components of your brain. Your body can make all the cholesterol it needs and you can also get some through food. States put produce on their plates just (all in the yolk).

While you need cholesterol in your body to survive, too much is a very bad thing. Excess cholesterol in your blood can cause plaque buildup and make it more difficult for blood to circulate, increasing risk for heart disease and stroke. The balance between types of cholesterol is important too. LDL (low density lipoprotein) cholesterol (the "bad" kind) causes buildup and blockage, while HDL (high density lipoprotein) cholesterol (the "good" kind) helps shuttle excess cholesterol in the blood back to the liver for storage.

Cholesterol in eggs and other foods like shellfish may seem alarming, but it turns out dietary cholesterol has little effect on cholesterol in the blood or risk of disease. The biggest culprits: saturated and trans fats and refined carbohydrates. Though the relationship between food, cholesterol and disease is complex, research has shown replacing saturated and trans fats with poly- or monounsaturated fats and swapping refined carbohydrates for whole grains and can help lower LDL cholesterol and risk of heart disease.

In defense for eggs, a 2015 study published in *BMJ* found eating up to one egg per day did not increase risk of coronary heart disease or stroke. In fact, eggs can be a beneficial part of the diet. A 2015 study published in the *American Journal of Clinical Nutrition* found adding whole egg to salad can help increase absorption of nutrients from vegetables. Plus, eggs yolks are a source of vitamin D, a nutrient most Americans don't get enough of, as well as choline, a key nutrient for nerve function and metabolism.

A 2015 study published in the American Journal of Clinical Nutrition found adding whole egg to salad can help increase absorption of nutrients from vegetables.

A new 2017 study from Tufts found cutting back on sodium, sugar-sweetened beverages like soda, and processed and red meats, and eating more fruits, vegetables, nuts, seafood, whole grains, and polyunsaturated fats were key to lowering risk of death from heart disease. Eggs were not included in the study.

The bottom line: There's no need to avoid eggs completely and we would suggest eating one or less egg per day. Rather than worry about nutrients themselves, focus on whole foods, especially fruits, vegetables, whole grains, beans, legumes, nuts and olive oil, and avoid overly processed packaged foods to help lower risk of disease.

Iron and Exercise for Better Grades

Normal Iron Stores and Better Fitness Linked to Higher GPAs in College Students



College students, listen up! Research from Penn State and the University of Nebraska-Lincoln finds iron-rich foods and exercise could help you ace your finals this semester.

The 2017 study published in *The Journal of Nutrition* involved 105 female college students at Penn State. Researchers measured students' stored iron and fitness levels and obtained their GPAs (grade point averages). Compared to women with low stored iron, women with normal iron levels had better grades, and the fittest women with normal iron were at the top of the class. The gap in GPA was as much as 0.34—enough to drop or increase a letter grade—between the unfit students with low iron and the fit students with normal iron.

Your body needs iron to carry oxygen in the blood and iron deficiency can lead to fatigue and poor academic performance. We've seen before that fitness is linked to academic achievement and cognition. Nothing can replace the importance of working hard and studying, but there is plenty of reason to make time for the exercise and healthy eating after hitting the books.

Top vegetarian sources of iron include beans, oats, seeds, lentils, raisins, chickpeas, cashews and dark leafy green vegetables like spinach. To help enhance absorption of iron, pair iron-containing foods with foods that are high in vitamin C, such as strawberries, citrus fruits, tomatoes and broccoli.

Get a dose of iron and vitamin C with these [Lentil "Meatballs" with Kale Pesto](#).

Stress Less, Sleep More with Bananas

Prebiotic Fiber May Aid in Stress Reduction and Promote Restful Sleep



If you're feeling stressed and losing sleep, bananas may be what you need. A 2017 study published in *Frontiers in Behavioral Neuroscience* finds foods containing prebiotics (a type of fiber that feeds probiotics, the healthful bacteria inside your gut) may aid in stress reduction and promote more restful sleep.

In a laboratory study, researchers from the University of Colorado saw that rats fed a diet containing prebiotics spent more time in restful non-rapid-eye-movement (NREM) sleep than those on the non-prebiotic diet. Next, researchers investigated how diet might affect sleep when stress is in the picture. Stressed-out rats that ate prebiotics spent more time in REM sleep, critical for stress recovery, than rats who did not receive prebiotics.

Stress typically leads to a drop in probiotic diversity in your gut and causes disruption to normal body temperature fluctuations, both factors that can interfere with sleep. In this animal model, these reactions to stress were prevented by eating prebiotics, so there were no issues with sleep.

Though this study was done in rats and used prebiotics found in milk, there's certainly no harm in adding more prebiotics of any kind to your diet, especially those from fruits and vegetables. In addition to bananas, other healthful and delicious sources of prebiotic fiber include artichokes, nectarines, asparagus, chicory, raw garlic, leeks and onions.

To add more prebiotic fiber to your diet and promote restful sleep, snack on our [Banana Sushi Rolls with Crispy Rice](#).

Celebrate Earth Day

Why and How to Reduce Food Waste in Your Home



April 22 is Earth Day, a yearly reminder to consider how what we do affects the environment around us. What we eat (and don't eat) matters too. A 2017 study published in the journal *Agricultural Systems* revealed almost 20% of available food is lost through overeating or waste. We eat around 10% more food than we need and 9% is thrown away or left to spoil.

How can you and your family reduce food waste in your home? Follow these three P's and you can help make a difference.

Purchasing: Only buy what you need. It may seem like a deal to stock up in bulk, but both your wallet and the environment lose when leftover food is thrown out. Before you put food in your cart, think about how long it will stay fresh and when it will be eaten. "It's fine to stock up on pantry items like canned beans and whole wheat pasta, but when it comes to fresh produce, fish and other perishables you're better off buying less and shop more frequently," explains Jenn LaVardera, MS, RD.

Preparing: After sorting, peeling, trimming and chopping, there tends to be a lot of food—and nutrition—tossed in the trash. Cut down on waste and keep the nutrients on your plate by using the whole plant. Skins are packed with fiber and tend to be the most nutrient-rich parts of plants. Forgo the peeler for apples and potatoes, preserve citrus peels and try pickling watermelon rinds (read more on [Nature's Packaging](#)). You can also mix and match between meals. "If you're like me, you make a big family meal every Sunday, and you usually have leftover fruits and vegetables," says Dole's Chef Mark Allison. "Look at your leftovers and see what you can use for a meal later in the week. Roasted vegetables make fabulous additions to salads or can be turned into vegetable lasagna or used for taco or enchilada fillings. Leftover fruits can be added to muesli, yogurt or porridge to start your day with nutritious foods."

Portioning: Reduce plate waste by controlling the portions on your plate. "We tend to over-serve ourselves foods like pasta and rice and these scraps end up in the trash," says LaVardera. "In general, Americans are overeating animal proteins, which require huge amounts of energy to produce." Serve yourself proper portions of food (stay tuned for more in May!) and store the leftover in the fridge. Cut down on animal proteins by eating more beans, legumes and vegetarian dishes.

Celebrate Earth Day by bring our [Niçoise Salad Jars](#) on a spring picnic outside!

No Gym? Climb the Stairs!

Brief, Intense Stair Climbing May Increase Cardiovascular Fitness



No gym membership? No time to work out? No more excuses! New research published in the journal *Medicine & Science in Sports & Exercise* says a staircase and a few minutes may be all you need to improve your cardiorespiratory fitness.

Canadian researchers recruited 31 sedentary yet otherwise healthy women to either climb stairs or ride a stationary bike for three 20-second “all out” bouts. They did this ten-minute workout (including warm up and cool down) three days per week. After six weeks of training, measurements of fitness such as heart rate and peak oxygen uptake were the same between groups, meaning a simple staircase can provide the same beneficial workout as an expensive bike.

Sound familiar? We’ve seen the benefits of stairs before: A Swiss study we reported on in 2009 linked stair climbing to a 9% increase in aerobic capacity, which translated to a 15% drop in the chances of premature death.

Thirty minutes on the stairs a week was all it took in this study, though we recommend getting at least 150 minutes of physical activity a week and mixing up your routine when you can.

FEATURED RECIPE

Savory Fruit Compote

Ingredients:

- ½ cup orange juice
- 2 tablespoons balsamic vinegar
- 1-½ tablespoons grated fresh ginger
- 1 teaspoon chopped fresh rosemary
- 1 cup sliced rhubarb
- 2 cups DOLE® Strawberries, quartered
- 1 cup DOLE Blueberries
- 1 firm DOLE Banana, peeled and diced
- 1 tablespoon chia seeds



Makes: 8 Servings

Total Time: 18 minutes

Directions:

1. **BRING** orange juice, balsamic vinegar, ginger and rosemary to rolling simmer. Stir in rhubarb, reduce heat and simmer 3 minutes or until rhubarb softens.
2. **STIR** in strawberries and blueberries, return mixture to simmer and continue cooking for 2 minutes.
3. **REMOVE** from heat and fold in banana and chia seeds. Serve warm or room temperature.

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 2017 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