



Nutrition News

Feeding the world with knowledge

March 2016

K for Cognition

Vitamin K Linked to Better Cognition in Older Adults



March is National Celery Month, and we're celebrating with ants on a log, Waldorf salads, whole wheat stuffing, and homemade slaws. Celery is low in calories, provides a good source of vitamin A and folate, and is an excellent source of vitamin K. Most well-known for its role in the blood clotting system and bone health, adequate amounts of vitamin K in the diet was also recently linked to better cognition and behavior among

older adults in a 2015 study published in *Nutrients*.

French researchers questioned 192 study participants, 65 years of age or older, about their usual dietary habits and used the information to estimate daily vitamin K intake. A neuropsychologist then assessed participants' cognition through a mental examination, scored between 0 (worst) and 30 (best). Behavior, including mood and self-control disorders, was scored on a scale of 0 (normal) to 4 (worst).

Overall, higher vitamin K intake was linked to better cognition and behavior. Specifically, compared to those with the lowest vitamin K intake, participants who got more vitamin K in their diet scored 2.1 points higher (better) on the cognition scale and 0.4 points lower (better) on the behavior scale. Researchers cannot say for sure how this nutrient is linked to cognition and behavior, but think it may have to do with vitamin K's role in the central nervous system, specifically, its involvement in the production of sphingolipids, compounds that make up nerve cells and have been linked to the aging process.

In addition to celery, leafy greens like spinach, lettuce, kale and collard greens are jam-packed with vitamin K. Other top sources include broccoli, cabbage, asparagus and Brussels sprouts.

Add more vitamin K to your diet with DOLE® Premium Celery Hearts, a unique variety of celery with a mild flavor and less-stringy texture. This crunchy vegetable is perfect for snacking or to use in recipes like our [Roasted Celery Soup](#).

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BONUS: Vitamin K-rich foods like celery may also protect against diabetes. One study found those in the top 20% of vitamin K intake had significantly lower blood glucose levels, suggesting their bodies were better able to use the insulin produced by the pancreas, hence a lower diabetes risk

Soups On!

The Science Behind the Trend of “Souping”



For the past few years, “juicing” has been one of the biggest trends among healthy eating enthusiasts around the country. In 2016, make way for “souping” as the newest movement to sweep the nation. But what’s the science behind this trend and is it worth the hype?

Longtime readers of the *Dole Nutrition News* know there is no shortage of soup recipes in our repertoire. We have always recommended soups as part of a nutritious diet. David H. Murdock, Chairman and owner of Dole Food Company, may be the world’s biggest fan of wholesome soups. At 92 years of age, soup is a convenient way for this business mogul to get the vital nutrients he needs during a busy day. When made with the right ingredients, soup can provide vitamins, minerals, lean protein, healthy fat, and whole grain carbohydrate in just one bowl.

The formula for a well-rounded, entrée soup is simple: use a low-sodium broth base, add lots of colorful vegetables, include a lean protein like fish or beans, and add a healthful carbohydrate such as wild rice or barley. Canned soups are often high in sodium, so we suggest making your own from scratch. A few favorite recipes include [Wild Salmon, Vegetable and Bean Soup](#), [Turkey Vegetable Soup with Red Pesto](#) and [Mexican Chicken and Rice Soup](#).

Freshly pressed juices can be an efficient source of vitamins and minerals, but they lack the fiber, protein and healthy fats needed to support overall health. Store-bought juices can also be quite high in sugar, which may cause blood sugar spikes when not accompanied by the fiber of whole fruits and vegetables. You can also lose out on powerful antioxidants found in the skins. There is a place for fresh juice in the diet, but pair the drink with a handful of almonds or a piece of whole grain toast if it is acting as a meal.

Whether you prefer juices or soups, be wary of companies selling expensive cleanse diets or low-calorie weight-loss plans that are comprised of just juice or clear broth. Though “detox diets” have been popularized in the media, it is a misconception that either trend will cleanse the body of “toxins”. The human body is equipped with a liver, kidneys and colon with innate mechanisms to remove any toxic substances from the body. Eating a balanced, nutrient-dense diet to support these organs is a better option than sustaining your body on liquids alone.

Sitting with Stress

Sedentary Activity Linked to Anxiety



You may have heard that “sitting is the new smoking” —several studies have linked long periods of sitting to increased BMI, greater risk of chronic disease, and shorter life expectancy. But the harmful effects of sitting may not stop there: Research out of Australia suggests the longer you sit, the greater your risk of anxiety.

A systematic review published in *BMC Public Health* looked at nine studies from 2008 to 2014 across seven different countries that included children, adolescents and adults. Each study measured daily sedentary activities such as sitting, watching TV, and using the computer, and measured markers of anxiety through various scales and questionnaires. Overall, there was moderate evidence linking sedentary behaviors to increased risk of anxiety. For example, one study in China found that high school students who spent more than two hours per day in front of a screen were 36% more likely to experience anxiety symptoms. A study from Singapore found that adults who sat for about 10 hours per day were 29% more likely to report psychological distress or emotional disturbance.

Anxiety, characterized by excessive worry, affects over 27 million people worldwide. The condition can be debilitating to daily living and can include symptoms such as pounding heart, upset stomach and difficulty breathing. Researchers are not certain how sitting may contribute to this condition, but suspect it may be through poor metabolic health. It could also be the fact that time spent sitting means time not spent doing physical activities, which can be helpful in reducing anxiety.

In a society of offices, cars, computers and televisions, sitting is often hard to avoid. Make it a point to get up and move every hour during the day, and try leisure activities like yoga or group sports.

Fill Up on Fiber

Soluble Fiber May Prevent Obesity



“Eat less, move more” is the conventional wisdom of weight loss, but obesity prevention is not such a simple formula. The foods we eat and the nutrients contained in those foods can have a profound effect on how our bodies work and if we gain weight, even when calories are held consistent. New research published in the *American Journal of Physiology - Gastrointestinal and Liver Physiology* tests this theory and points to soluble fiber as a defense against obesity.

In the 2015 study, mice ate either a high- or low-fat diet that lacked in soluble fiber. Not surprisingly, the high-fat diet group rapidly gained weight, but the mice on the low-fat diet gained some weight too. Scientists took a closer look, and saw there were also dramatic changes to intestine and colon health, including inflammation that was likely contributing to weight gain. When inulin, a soluble fiber, was added to the diets, these negative effects on the gut were largely reversed.

Soluble fiber like inulin provides food for “friendly” microorganisms in the gut and has anti-inflammatory properties that support gut health. Inflammation and disturbances to gut health can cause insulin resistance and effect satiety signals, processes that drive obesity. Insoluble fiber like cellulose (fiber that helps keep you regular) did not have this effect.

Natural food sources of inulin include bananas, asparagus, garlic, onions, leeks, and artichokes. Current Dietary Guidelines and most food labels do not differentiate between soluble and insoluble fibers—aim for at least 25 grams of dietary fiber per day from a variety of sources including fruits, vegetables, beans and whole grains to ensure a mix of soluble and insoluble. Start your day with our [Banana Breakfast Pudding with Pistachio Crumble](#) and you’ll be up to 9 grams of fiber before you head out the door.

Personalized Nutrition

People Show Different Responses to Same Foods



As most dietitians will tell you, nutrition and diet are not “one plate fits all.” Genetics, body type, lifestyle choices, and gut health are just some of the factors that may affect how your body reacts to certain foods. Recently, researchers from Israel explored the concept of personalized nutrition and what it might mean for blood sugar control. Results are published in the journal *Cell*.

For the study, researchers continuously monitored blood sugar levels in 800 adults for seven days. Participants were asked to follow their normal diets except for breakfast, which was a standardized meal provided to everyone, and to log the exact amounts of all the other foods that they ate. Researchers wanted to see

if post-meal blood sugar levels (known as the glycemic response) varied between participants after they ate the same exact foods.

Indeed, results showed great variance between individuals. The same exact foods caused some participants’ blood sugar levels to significantly rise, while other people showed a moderate or flat response, and vice versa. Even high-carbohydrate foods like bread and cereal showed vastly different responses among individuals. However, when one person ate the same food multiple times, their responses were fairly consistent.

Researchers then took the study a step further. Using personal information such as blood measurements, dietary habits, physical activity and gut microbiota, they developed an algorithm that accurately predicted an individual’s blood sugar response to a meal in a group of 100 people. Next, researchers used the algorithm to develop personalized meal plans for a group of 26 people that were successful in improving blood sugar control.

Results of this study show that when it comes to blood sugar responses, foods cannot be universally labeled as “good” or “bad.” The same may be true for hunger levels, weight management, and other responses to eating. “There is no such thing as one perfect diet,” explains Jenn LaVardera, MS RD of the Dole Nutrition Institute. “Just as people come in all shapes and sizes, diets have to as well.”

How can you best eat for your individual self? Though genetically-prescribed diet plans are a few years down the road,

a consultation with a registered dietitian is a good place to start. A dietitian can help you pinpoint areas of improvement, such as eating more vegetables and less refined carbohydrates, and determine an eating plan that works for you.

Remember to Share

Sharing Information Can Help You Retain It



Do you look forward to the *Dole Nutrition News* each month? It's time to spread the word! Sharing articles on social media not only helps your friends stay on top of the latest news in health and nutrition, studies show posting articles may help you better connect with and absorb the information you read.

Researchers asked 265 people to share an article from a news website on Facebook. Participants were randomly assigned to share the story via news feed, wall post or direct message; provide an opinion, question or no comment in the comments section; and either tag a friend or not. Results showed how people shared the story greatly influenced the extent to which they were engaged with the content. Asking friends' opinions and engaging in discussion in the comments section inspired greater involvement with the news content, and those who shared the article felt a greater sense of influence. People who targeted or tagged specific friends also felt a greater sense of community and involvement.

In another study by the same lead researcher, 263 college students explored various websites on the same topic, but each site utilized different interaction and engagement techniques to convey the information. Physical interaction—clicking—was strongly correlated with information absorption and recall memory of the content.

Share the *Dole Nutrition News* on your social media channels to spread the information, and help you absorb it too! Post or Tweet your favorite articles, tag your friends, and inspire discussion on the latest in health and nutrition research. Follow us on [Facebook](#) and [Twitter](#) so you'll never miss a nutrition beat.

Get the culinary conversation started by sharing this month's featured recipe [Spinach Crostini with Apple and Grape Relish](#)—perfect for enjoying with friends as you discuss the *Dole Nutrition News*!

FEATURED RECIPE

Banana Breakfast Pudding with Pistachio Crumble

Ingredients:

- 2 cups light unsweetened vanilla almond milk
- 3 very ripe DOLE® Bananas, peeled and mashed
- ½ cup chia seeds
- 2 tablespoons honey
- ½ teaspoon ground nutmeg, divided
- 1 teaspoon grated orange peel
- ¼ cup old-fashioned rolled oats
- ¼ cup shelled, roasted and salted pistachio nuts
- 2 tablespoons light brown sugar
- 2 tablespoons flax meal
- 2 tablespoons buttery spread
- 1-½ cups DOLE Raspberries
- 2 DOLE Banana, sliced

Directions:

1. Combine almond milk, mashed bananas, chia seeds, honey, ¼ teaspoon nutmeg and orange peel. Cover; refrigerate 2 hours or until mixture thickens and chia seeds soften.
2. Preheat oven to 350°F. Line baking sheet with foil and spray with cooking spray; set aside. Combine oats, pistachio nuts, brown sugar, flax meal and remaining ¼ teaspoon nutmeg. Using fingertips, rub the buttery spread into oat mixture. Spread oat mixture on prepared pan. Bake 12 to 15 minutes or until browned. Cool.
3. Layer several banana slices, raspberries and the pudding into 8 serving dishes. Sprinkle pistachio-crumble on top and garnish with banana slice and raspberries.



Makes: 8 Servings

Prep Time: 15 minutes

Cook Time: 2 hr. and 15 minutes

EDITORIAL TEAM

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