



# Nutrition News

Feeding the world with knowledge

Happy Thanksgiving



November 2016

## Broccoli vs. Oral Cancer

*Sulforaphane May Help Prevent Carcinogen-Induced Oral Cancer*



We just can't say enough about the wonders of broccoli. It's delicious and versatile. It's low in calories and high in nutrients. And it's undoubtedly good for health. We've seen before that broccoli may help in the fight against liver, prostate and breast cancers and a 2016 study published in *Cancer Prevention* shows promise for oral cancer protection too.

Laboratory research from the University of Pittsburg found sulforaphane, a phytochemical in broccoli, was able to lower the number and size of tongue tumors in mice. A follow-up trial in humans strengthened the evidence. Ten participants drank a sulforaphane-rich beverage made from varying amounts of broccoli sprouts. Cheek swab analysis showed an increase in activity of cancer-fighting enzymes in most participants after drinking the beverage.

Though phytochemicals are 20 to 50 times more concentrated in broccoli sprouts than the mature vegetable, you can still get a dose of sulforaphane by eating broccoli and other cruciferous vegetables like cabbage and Brussels sprouts. Here are a few easy ideas:

- Toss cooked broccoli with whole wheat pasta and tomato sauce.
- Make **cauliflower rice**: pulse florets in a food processor and lightly sauté.
- Shred Brussels sprouts to make a slaw.
- Add cabbage to soups.

For a quick and flavorful side dish, try **Broccoli and Parmesan Gratin!**

From everyone here at Dole, we wish you a wonderful and healthy

*Thanksgiving*

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## Kids in the Kitchen

### *Children's Cooking Classes Increase Produce Consumption*



More than 36% of American children eat fruits and vegetables less than once a day—an unimpressive statistic given that the recommendation is about four cups daily. How can you encourage your children to add more nutritious color to their plates? Just get them involved in the kitchen, suggests a 2016 study published in the *Journal of Nutrition Education and Behavior*.

For the study, chef-led cooking classes were offered to students in 17 elementary and middle schools in Chicago. For ten weeks students attended two-hour weekly classes that included a nutrition lesson, hands-on cooking time and a group meal.

Before and after the course, students completed surveys to assess their nutrition knowledge and dietary habits. As anticipated, participation in the course increased both fruit and vegetable consumption (not by much, but any amount helps). Scores for nutrition knowledge also went up, as did confidence in the kitchen.

Not everyone has access to chef-led cooking classes and that's okay—just getting your child involved in your own kitchen at home will offer valuable experience. Recruit your child to help with menu planning and grocery shopping, allow children to select their own fruits and vegetables, assign age-appropriate tasks like assembling a salad or slicing fruit, and take the time to sit down and enjoy a family meal. If there are cooking classes in your community, sign your child up or go as a family! The more children learn about and interact with healthful foods the more excited and willing they'll be to eat them. Remember, children learn by example, so increasing your own produce consumption can make a big impact too.

Try our [Five Spice Pineapple Chicken](#), [Spinach & Rice](#) with your family at home. Kids can peel the onion and garlic and help stir the food as it cooks in the skillet

## Exercise Variety is the Spice of Life

### *Study Finds Varied Physical Activity May be Linked to Longevity*



We typically advise to mix up your workout routine—it's common sense. Variety keeps your muscles activated and your mind stimulated, offering well-rounded fitness with lower risk of boredom. But there may be another reason to switch up your exercise regimen: longevity.

In a study published in *Medicine & Science in Sports & Exercise*, American researchers assessed longevity based on length of telomeres, repetitive DNA sequences on chromosomes that protect genomic DNA. Telomeres are a marker of aging, and shorter telomeres means shorter life expectancy.

Researchers measured telomere length via blood samples in 6,503 NHANES participants aged 20 to 84 years. They also reviewed questionnaires that assessed participants' usual physical activity to determine how often they did four different types of activity: moderate exercise, vigorous exercise, walking/cycling for transportation, and strength training. Results suggest variety is the spice of life and longevity. Compared with people who did no activity, those who did

all four types of exercise had 52% reduced odds of being in the lowest versus highest group of telomere length—suggesting lower odds of early death. When age was considered, that figure jumped to 61% reduced odds in those aged 40 to 64 years, meaning those years could be the most crucial for mixing up your exercise habits.

Though the mechanism is unclear, the recommendation is straightforward: Include a variety of activities in your weekly workout schedule and squeeze in physical activity throughout the day by biking to work or walking for your errands. Try yoga, Pilates, jogging, swimming, strength training or group sports like soccer—anything that gets you up and moving!

**BONUS:** In a Swiss study, employees who used only the stairs at work for three months saw a 9% increase in aerobic capacity, which translates into a 15% drop in the chances of premature death.

## Give Thanks for Fruits and Vegetables

*More Produce Linked to Better Life Satisfaction Scores*



This may be the most positive type of study to report on: Eating fruits and vegetables can make you happier! We've seen that fruits and vegetables are linked to higher mental well-being and that eating a plant-based diet may help lower risk of depression. Now, an Australian study published in the *American Journal of Public Health* finds eight servings of produce a day may offer a boost in life satisfaction.

For the study of more than 12,000 participants aged 15 to 93 years, researchers used questionnaires to determine average daily consumption of fruits and vegetables. Participants also rated their overall life satisfaction and happiness.

Researchers kept track of participants for two years to monitor changes in diet and happiness.

The results are something to smile about. Analysis suggests people who change from eating almost no produce to eight portions a day will experience a 0.24 point increase in life satisfaction. This may not seem like much, but that's the equivalent of someone moving from unemployment to employment. We know a healthy diet can affect your physical health down the line, and now it's clear the amount of fruits and vegetables you eat today may predict your mental well-being in the future too.

Give thanks for fruits and vegetables this Thanksgiving and all year round by aiming for eight servings a day. Sounds like a lot, but it's not hard to do—here's a sample of what to include in your menu:

- **Breakfast:** One banana and eight strawberries
- **Snack:** One carrot and one celery stalk
- **Lunch:** Two cups salad greens with one cup raw vegetables
- **Snack:** Cup of grapes
- **Dinner:** One sweet potato and a cup of steamed broccoli

Add more produce to your Thanksgiving spread with our [Cranberry Apple Stuffing](#) made with celery, onions, and Granny Smith apples—a lightened-up version of a Thanksgiving favorite.

## Five Second Rule Fallacy

*Bacterial Contamination Can Occur Instantaneously on the Floor*



Food dropped on the floor for less than five seconds is safe to eat, right? **Wrong.** Researchers from Rutgers University put the “Five Second Rule” to the test in a 2016 study published in *Applied and Environmental Microbiology*. Results are less than appetizing.

Researchers dropped four different foods (watermelon, bread, buttered bread and gummy candies) on four different surfaces (stainless steel, tile, wood and carpet) for four different time periods (less than one second and five, 30 and 300 seconds). Surfaces were contaminated with *E. aerogenes*, a food-grade bacterium that acts similarly to *Salmonella*. Though longer contact times did result in more bacterial transfer, some bacteria hopped on to food in less than one second on the floor.

Researchers also found bacterial cross-contamination depends on much more than time. Watermelon had the highest transfer rate regardless of time, likely because it’s moist and has a uniform surface when cut. Carpet was the safest surface, while tile and stainless steel were the worst offenders.

All in all, you’re better safe than sorry when it comes to food safety. The CDC estimates more than 9 million cases of foodborne illness each year in the United States, with surface cross-contamination as a leading risk factor. Reduce your risk of food poisoning by trashing food that hits the ground, washing your hands frequently, rinsing your produce, keeping foods properly refrigerated and using separate cutting boards for produce and raw animal products like fish and chicken.

Remember food safety skills at all of your meals, including Thanksgiving dinner—and don’t forget the veggies! Our [Fall Galette with Spinach and Bleu](#) is a delicious addition to your celebration.

## Long Naps Linked to Type 2 Diabetes

*Hour-Long Naps May Increase Risk by 45%*



You can have too much of a good thing. We’ve seen that midday naps may help lower blood pressure and be beneficial to your heart, but a 2016 study from Japan finds napping for too long may increase risk of type 2 diabetes.

Researchers from the University of Tokyo analyzed data on more than 300,000 people included in 21 studies that looked at links between napping and health. Results showed people who napped for an hour or more each day saw a 45% increased risk for type 2 diabetes. Shorter naps (40 minutes or less) had no effect on diabetes risk, nor did skipping naptime altogether.

Though researchers can’t say for sure if this is cause-and-effect, there is good evidence to suggest keeping naps short if they are a part of your usual routine. The National Sleep Foundation advises short naps of 20 to 30 minutes can help to improve mood, alertness and performance. Anything longer than that may leave you feeling groggy or interfere with nighttime sleep.

While it's fine to indulge in your annual post-Thanksgiving dinner snooze, for the rest of the year keep naps short and practice good sleep hygiene to ensure a quality nighttime rest. Aim for seven to eight hours of sleep per night—a Dutch study found much less or much more sleep may be linked to lower insulin sensitivity, a precursor to type 2 diabetes.

**BONUS:** Lower risk of type 2 diabetes could mean lower risk of dementia, too. Compared with people without diabetes, men with diabetes had a 70% greater risk for developing vascular dementia, and a 120% greater risk in women.

## FEATURED RECIPE

### Five Spice Pineapple Chicken, Spinach & Rice

#### *Ingredients:*

- 2 tablespoons vegetable oil
- 1 tablespoon sesame oil
- 1 cup finely chopped DOLE® Onion
- 1-½ cups fresh DOLE Tropical Gold® Pineapple, finely diced
- 2 garlic cloves, finely sliced
- 1 tablespoon Chinese five spice powder
- 2 cups DOLE Organic Super Spinach
- 3 cups rotisserie cooked chicken, skin removed, coarsely chopped
- 2 cups cooked brown basmati rice



**Makes:** 4 Servings

**Total Time:** 25 minutes

#### *Directions:*

1. **Heat** oils in large wok or skillet until hot, stir in onion, pineapple, garlic and five spice powder, cook 6 to 8 minutes or until onion is tender and pineapple golden.
2. **Stir** in spinach, chicken and rice, cook for 2 to 3 minutes or until heated through.

## EDITORIAL TEAM

Dole Nutrition Institute / Lead Editor: Nicholas Gillitt, PhD

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