



Nutrition News

Feeding the world with knowledge

Celebrating
National
Fresh Fruit
and
Vegetables
Month!



June 2018

Growing Future Gardeners?

Exposure to growing vegetables related to higher intake



Over the past decade or so, elementary school gardening programs have been on the rise and for good reason – they’ve been credited with increasing fruit and vegetable intake among school aged children! Today about one in four public elementary schools has one. The question remains, will these eating habits continue through adolescent and college years and beyond?

This study, published in the *Journal of the Academy of Nutrition and Dietetics*, took a closer look at how past gardening experience may play a role in the food choices of over 1,100 college freshman from eight different U.S. universities. Participating students were asked a series of questions about their fruit and vegetable intake and gardening activities both currently and during childhood. Eleven percent of students reported gardening as a child, 19% reported only gardening within the last year, 20% reported both while the other half of students denied ever having gardened.

Results showed that the students who gardened through both childhood and through 8th grade consumed about 25% more fruits and vegetables compared to students who never gardened. Significantly higher! In the March DNN, we learned that nutrition knowledge has limited effects on food choices in the university population, but the hands-on gardening experience can really make a difference in food choices in this impressionable population.

As Audrey Hepburn said, “To plant a garden is to believe in tomorrow” and with results like these we believe it’ll be a healthier tomorrow too. This year Dole is a proud sponsor of three new school gardens near our research facility in Kannapolis, NC.

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Magnesium and Vitamin D

The pair ensure absorption



There is a lot of buzz around getting enough Vitamin D, especially over dreary winter months when we tend to spend most of our time indoors. Now that summer is almost upon us (June 21st marks the day!), we may think we're in the clear, but not so fast! A review published in *The Journal of the American Osteopathic Association*, brings a new piece to the Vitamin D story to light. Scientists have known that some nutrients act in a synchronized way, meaning that absorption of one vitamin or mineral relies on the availability of others. Investigators have shown this to be true for Vitamin D and Magnesium (Mg).

In order for Vitamin D to carry out functions related to bone, joint and heart health, it needs to be converted from an inactive or "storage" form to an "active" form. This process is very much dependent on the availability of the mineral Mg in the body, no Mg means no conversion. Data showed that higher Mg intakes reduced the risk of Vitamin D deficiency too. They also found that those with sufficient Mg levels required less Vitamin D supplementation to achieve adequate levels.

Complicating the issue even further, two thirds of us just don't get enough Mg in our diets even though it's found in a variety of foods including bananas, almonds, black beans and green vegetables like spinach. Researchers attributed our lack of the mineral to changes in the Western diet as well as agricultural and industrial practices that may remove Mg during processing. We should be aiming for 420mg and 320mg daily for males and females respectively.

Try these two seasonal warm weather dishes that help you get to your Mg goal too! [Stuffed Bananas with Cilantro Sauce](#) (21mg) and [Frozen Banana Pops](#) (28mg), yummm!

Note: When it comes to Vitamin D, aim for sources that provide D3, such as milk, eggs and fatty fish. D3 is more effective in raising your levels than the alternative D2 which is commonly found in fortified foods, supplements and mushrooms grown under UV light.

Protein Peril

Swap animal for plant proteins for cholesterol benefits



Each month we reinforce the power of plants and the many reasons to get your 10 a day. There are so many delicious ways to do it: meatless meals, going vegetarian or trying the ever more en vogue Mediterranean diet. Now the focus is turning to plant protein and how it affects our health.

Consuming protein from plants is known to have a cholesterol lowering benefit, however less is known about how those benefits change when substituting plant proteins like soy, nuts, peas and lentils for animal proteins like meat, dairy or eggs. Does the benefit come from the replacement of animal for plant protein, or is there some other aspect of plant based diets, such as increased fiber, that

is responsible? That is what researchers hoped to find out in this systematic review published in the *Journal of the American Heart Association*.

In reviewing information for almost 6,000 adults, investigators found that replacing animal proteins with plant proteins at least once a day for at least three weeks resulted in lower cholesterol levels. The plant protein swap could be attributed to lowering cholesterol due to the plant sterols or soluble fiber; however in this case researchers believe the decrease in cholesterol is instead due to the plant protein itself which has a slightly different amino acid profile. Though researchers suggest further exploration on the topic, in this instance, they saw decreases in LDL, commonly known as “bad” or “lousy” cholesterol, and the cholesterol markers non-HDL-C and apolipoprotein B, of 4%. While that is a small reduction, most of us eat more protein from animals than plants, leaving a substantial opportunity for beneficial improvements.

If you're interested in gaining some plant powered benefits, try these simple swaps:

- enjoy soy milk instead of cows milk
- make a tofu scramble instead of an egg-based breakfast
- try using beans for taco night instead of ground-meat
- whip up our [Black Bean and Green Taco Salad](#) as a quick weeknight meal

Salad- It's In the Bag

Getting to the bottom of packaged salads and nutrient loss



Bagged salads are just what you need when you have unannounced guests or for those times when you just don't want to turn on the oven! It's the one item that should always be in your fridge so you can take advantage of recipes like our [Chipotle Spring Rolls](#), a real crowd pleaser! This month we're setting the record straight on this mealtime shortcut by answering your questions and addressing concerns about bagged salads and salad kits. We turn to experts, Mary Ann Lila (MAL), Director, Plants for Human Health Institute at NC State, and Aaron Schneider (AS) Director, Food Safety at Dole.

Q: I've heard that salads lose minerals and vitamins, specifically B vitamins like Folate and C, when they are chopped, washed and bagged. As a mom, I'm worried that my go-to salad is not a nutritious choice. Am I taking the easy way out?

MAL: Bagged, prewashed salad greens are an excellent and health-protective choice. The salad greens are not only an excellent source of fiber and nutrients but also a superb resource for extra-nutritional phytoactive compounds that specifically help to attenuate chronic inflammation and are preventative against a range of chronic diseases in humans. There is a minor (really minor) loss of some water soluble vitamins from cut or torn surfaces, however the professional packaging process minimizes these losses. It really comes down to the difference between eating health protective produce, or not. If the ONLY alternative was a loose bunch of greens (which might have mud embedded in the interior, or critters), then there are a lot of people who just would not bother to even buy it. The packaged greens make it easy, prewashed, fully crisp and fresh, and a no excuses way for families to easily get the greens into the daily diet.

- Q:** I like the convenience of bagged salads but when I am trying to provide my family with the most nutritious option, should I just make the salad myself?
- MAL:** Honestly, I find that the bagged salad greens, which have been very carefully and gently washed and packaged, last longer than many of the loose produce items that can be purchased in grocery stores. Very often when loose spinach or Romaine is purchased, the leaves tend to turn rapidly and the wilted leaves more quickly decompose than those which are carefully bagged at the height of their freshness.
- Q:** Pre washed salad blends are so convenient, what are your best practice suggestions for storage and use once salads are brought home?
- MAL:** Plan to eat them in a timely manner – within a week. Actually this is yet another advantage of the packaged greens, in that the appropriate volume of greens can be purchased rather than having to buy a big bunch of spinach or head of lettuce that can't be consumed by the family in a reasonable amount of time.
- AS:** Store in refrigerator with a set point below 40F but, above 32F. Once bag is opened use within a few days.
- Q:** Will I get sick if I eat lettuce once it has begun to brown?
- AS:** Best to consume product prior or up to the Best If Used By (BIUB) date, not beyond. Browning or other defects can be indicative of quality challenges with product or cold chain integrity loss through distribution. I wouldn't suggest that having sporadic brown pieces (defects) has a relationship with illness.
- Q:** What is Modified Atmosphere Packaging (MAP), should I avoid it to do what's right for my family?
- MAL:** Why avoid it? It is simply a smart technique to extend shelf life of produce. Again, the leafy greens are minimally processed – they are fresh produce – so gas flushing/ or reduced oxygen at the time of packaging just helps to preserve the fresh, crisp texture and delay wilting/prevent deterioration. The oxygen/nitrogen/carbon dioxide atmospheres used in MAP are all natural components of the air we breathe. The gas blend simply helps to maintain the natural metabolism/respiration of the leaves. (Which is all natural, all good).
- AS:** Additionally, once a package with MAP is opened, any modified atmosphere is lost and exposure becomes simply ambient air which we breathe.
- Q:** Are the nutrition facts on the back of the salad bag accurate if vitamins and minerals are being lost during storage?
- MAL:** Again, the losses are negligible. The greens in the package are not shredded into bits, they are largely intact leaves with all the nutrients preserved.
- Q:** Does my choice of salad dressing matter?
- MAL:** Of course in terms of caloric count, the greens are low calorie and will “fill up” the stomach cavity and give a person satiety (the feeling of fullness) without loads of calories. If they are swimming in ranch dressing, well,

the greens still have all the active compounds but the calorie count has risen dramatically. Even so, EAT THE GREENS! Much better than eating chicken wings with the ranch dressing!

Nutritional Neuroscience

Foods and our moods as we age



Are you guilty of reaching for a bar of rich, creamy and dark chocolate to help lift your mood? While that may work – temporarily – a recent study shows that attitude adjusting and stress relieving foods may change as we get older. Findings suggest that the foods that helped improve our moods when we were younger may in fact change over time.

Researchers at the University of Binghamton, NY conducted an online survey and asked 563 participants to complete a Food-Mood Questionnaire as well as questions to better understand their diet, dietary practices and exercise patterns.

The difference between young adults (18-29) and older adults (30+) was clear. The moods of young adults were found to be more dependent on the presence of the brain chemicals serotonin and dopamine. Regular exercise and protein rich foods lead to higher levels of these mood enhancing brain chemicals. According to the survey, those who ate chicken or beef less than three times per week and exercised infrequently had more mental distress. Those who ate more protein rich foods and exercised more than three days per week were found to have less stress and report better moods.

Stress in adults over 30 years old was managed differently with food. They were found to be more sensitive to the presence of antioxidants as well as foods that trigger the fight or flight/stress response. It's known that with aging, there is a need for antioxidants to manage stress causing free radical buildup. So it's no surprise that in addition to antioxidant rich meals, avoiding foods like simple carbs and coffee that simulate the body's stress response also helped improve mood in older adults.

The bottom line is that you can't go wrong with a well-rounded diet that includes a variety of lean proteins and antioxidant rich fruits and vegetables.

10 Ways to Keep Kids Active this Summer

Annual school break related to weight gain



School is out and it's only a matter of time before you hear "MOM I'm BORED!!" This summer, be prepared with activities to keep your children from adding to the rising obesity statistics. Research presented at the *Obesity* journal symposium, uncovered that unhealthy amounts of weight were gained during summer months when compared to the rest of the year when school is typically in session.

Researchers studied more than 18,000 kindergarten through second graders over two years, measuring weights and heights at the beginning and end of each school year. They found more than a 2.5% uptick in obesity and more than 5% increase in overweight over the two years, noting that the increases took place only over the summer break, not during the school year. Researchers suggest solving the problem through improving out of school behaviors like nutrition education programs for parents and more active summer camp options.

Currently it is recommended that Children and Adolescents engage in 60 minutes or more of physical activity each day. These could include activities like bike riding, dancing, running, playing active games like sports or freeze tag. Other muscle and bone building activities like climbing the jungle gym, gymnastics and skipping, jumping and hopping are recommended too. Most of all activities should be fun!

1. Race around the house – who can do it the fastest?!
2. Family bike ride
3. Jump rope contest – who can go the longest?
4. Play with sidewalk chalk – draw a hopscotch board and play!
5. Walk the dog and make some new friends
6. Go for a hike and play a nature edition of "I Spy"
7. Have a water balloon fight
8. Catch fireflies at dusk – see who can get the most
9. Fly a kite at the beach or park
10. Play "Red Light Green Light 1-2-3" or "Red Rover"

Children will likely come in from summer activities both famished and thirsty! Avoid naughty nibbling by preparing healthy options and have them in plain sight so they can help themselves. We suggest you keep our recipe for [Walkabout Salad Cones](#) in your back pocket to make snack time a fun way to eat veggies too.

FEATURED RECIPE

Frozen Banana Pops

Ingredients:

- ½ cup non-fat vanilla Greek yogurt
- 1 cup DOLE® Strawberries or DOLE Blueberries
- 3 DOLE Bananas, peeled
- ⅛ cup flax seed granola or other granola
- ⅛ cup chopped toasted almonds
- ⅛ cup toasted coconut flakes
- 6 cake-pop sticks or popsicle sticks



Makes: 6 Servings

Total Time: 2.5 Hours

Directions:

- COMBINE** yogurt and strawberries or blueberries in a food processor or blender. Cover; blend until smooth. Transfer to a shallow bowl.
- CUT** bananas in half and press cake-pop stick into cut end. One at a time, dip bananas in berry-yogurt mixture and cover each with granola, toasted almonds or coconut flakes. Arrange bananas on a pan and freeze for two hours. Wrap individually in plastic wrap and return to freezer until ready to serve.

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