Diet Soda: Friend of Foe?

Spice it up

Japanese Cuisine

UNF
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FDA Modernizes Nutrition Facts Label

On May 20, 2016, the U.S. Food and Drug Administration took a major step in making sure consumers have updated nutrition information for most packaged foods sold in the United States. It is the hope of the FDA that these nutrition information changes will help people make informed decisions about the foods they eat and feed their families.

Americans have relied on Food Nutrition Facts labels as a leading source for information regarding calories, fat, and other nutrients to help them understand more about the foods they eat and purchase on a daily basis. According to the FDA Commissioner Robert Califf, M.D., “The updated label makes improvements to this valuable resource so consumers can make more informed food choices, one of the most important steps a person can take to reduce the risk of heart disease and obesity.”

The new Nutrition Facts label will include the following:

- An updated design to highlight “calories” and “servings,” two important elements in making informed food choices.
- Requirements for serving sizes that more closely reflect the amounts of food that people currently eat. What and how much people eat and drink has changed since the last serving size requirements were published in 1993. By law, the Nutrition Labeling and Education Act, requires that serving sizes be based on what people actually eat.
- Declaration of grams and a percent daily value (%DV) for “added sugars” to help consumers know how much sugar has been added to the product. It is difficult to meet nutrient needs while staying within calorie limits if you consume more than 10 percent of your total daily calories from added sugars, and this is consistent with the scientific evidence supporting the 2015-2020 Dietary Guidelines for Americans.
- “Dual column” labels to indicate both “per serving” and “per package” calorie and nutrition information for certain multi-serving food products that could be consumed in one sitting or multiple sittings. Examples include a pint of ice cream and a 3-ounce bag of chips. With dual-column labels available, people will be able to easily understand how many calories and nutrients they are getting if they eat or drink the entire package/unit at one time.
- For packages that are between one and two servings, such as a 20 ounce soda, the calories and other nutrients will be required to be labeled as one serving because people typically consume it in one sitting.
- Updated daily values for nutrients like sodium, dietary fiber and vitamin D, consistent with Institute of Medicine recommendations and the 2015-2020 Dietary Guidelines for Americans. Daily values are reference amounts of nutrients to consume or not to exceed and are used to calculate the %DV that manufacturers include on the label.
- Declaration of Vitamin D and potassium that will include the actual gram amount, in addition to the %DV. These are nutrients that some people are not getting enough of, which puts them at higher risk for chronic disease. The %DV for calcium and iron will continue to be required, along with the actual gram amount. Vitamins A and C will no longer be required because deficiencies of these vitamins are rare, but these nutrients can be included on a voluntary basis.
- “Calories from Fat” will be removed because research shows the type of fat is more important than the amount. “Total Fat,” “Saturated Fat,” and “Trans Fat” will continue to be required.
- An abbreviated footnote to better explain the %DV.

By Tara Kessinger
Congratulations Dr. Christie on winning the Inaugural Transformational Learning Opportunity Impact Award. The Award was presented to one faculty member in each of the 5 UNF academic colleges. Dr. Christie earned the honor of receiving this award due to her commitment to exposing nutrition and dietetics students to the social and cultural importance of food by leading multiple trips for graduates and undergraduates to Belize and Italy. Congratulations Dr. Christie!

Congratulations to recent UNF DND graduate and future UNF MS/DI student for being honored with receiving the FAND Award for Outstanding Dietetics Student for a Didactic Program in Dietetics. Congratulations Janice!

Welcome back to our DND students who traveled to Brazil. We are excited to hear about everything you saw and learned. This was the first Food, Health, and Society UNF study abroad trip to Brazil that was organized and led by Dr. Andrea Arikawa. What a great opportunity!

UNF DND Instructor Jenna Braddock shared foods that can help you sleep better on First Coast Living. To access the program, please click and share on the link below. Great job Mrs. Braddock.

Faculty Spotlight

By Jessica Glosson

Jen Ross is a native New Yorker who enjoys good food and cooking. She is a Registered Dietitian and Intuitive Eating Counselor; her areas of focus include counseling, intuitive and mindful eating, binge eating, impulsive & compulsive eating, eating disorders, weight concerns, recipe modification, insulin resistance, and maternal/infant nutrition. Professor Ross received her BA in Human Services from Elon College, and BSH and MSH in Health Science/Nutrition from the University of North Florida. She is currently an adjunct faculty member at both Jacksonville University and University of North Florida where she teaches a variety of nutrition courses.

JG: How did you decide you wanted to enter into the field of nutrition and dietetics?

JR: I didn’t really have this “Eureka!” moment that spurred my decision to pursue a career within this field. I’ve had multiple careers before this one, including a background in fitness. When I worked as a personal trainer, I began to feel that something was missing from my advice and instruction to clients. That missing piece was food.

JG: Can you tell us briefly about your journey through college and intern- ing?

JR: I initially obtained my degree in Human Services from Elon College. I did social work for a period of time after this, along with web development and eventually fitness training. When I realized I had an interest in food and nutrition, I worked to complete my dietetic internship and Master’s degree from the University of North Florida’s program!
**JG:** You currently work as an RD at Preferred Nutrition; tell us about this position.

**JR:** Preferred Nutrition is a counseling center located near Jacksonville Beach. We see all sorts of clients seeking all types of advice; sports nutrition, eating disorders, and more clinically involved patients with diabetes, renal issues, and high cholesterol are just some common examples. We have a specialty in dealing with patients with Binge Eating Disorder (BED) and we strive to reverse the negative effects of “diet trauma” on individuals. Our focus here at Preferred Nutrition is on health, not on weight.

**JG:** How did you become an Intuitive Eating Counselor? What does this role entail?

**JR:** I do a lot of work with patients diagnosed with eating disorders so I’ve seen first-hand how damaging the effects of calorie-counting and dieting can be on an individual. I worked and studied to receive a special certification that designates my role as an Intuitive Eating Counselor. I practice a non-diet approach towards healthy eating and wellness with my clients as a result. When working with eating disorder patients, I often team up with our on-staff therapist who serves as an invaluable resource.

**JG:** What would you say are the biggest challenges you currently face with counseling clients?

**JR:** Insurance reimbursement has become a huge barrier to care. As the coordinator for this process at Preferred Nutrition, this is a challenge I seek to change and overcome. Additionally, I feel that there is a split within the profession of nutrition and dietetics between those who are “pro-diet” and those who are “non-diet”. Unfortunately, many practitioners still push “diet” related concepts to clients instead of taking on a lifestyle approach. A huge emphasis is still being placed on weight within our organization; the focus on numbers associated with body dimensions is still prevalent. At our clinic here, we take the focus off of weight and instead concentrate on lifestyle concepts. I believe that there truly can be health at every size.

**JG:** What advice do you suggest for dietetic interns or nutrition students in an undergraduate program?

**JR:** Most importantly, keep an open mind. Don’t be afraid to work with different sorts of people. Take the time to learn and reflect on your own personal relationship with food.
Spices are very important as food and as medicine. They bring out the unique natural taste of cuisines and are used to change the look of food to make it more attractive in color. As medicine or food, the importance of spices cannot be overemphasized. In all medical systems of Asia and Europe, spices have been used both as therapeutic foods and as medicines. The ancient Middle Eastern civilizations utilized all types of plant, animal and mineral products to treat disease. Today, all the medical importance of spices has yet to be discovered and scientifically proven through evidence based studies; nevertheless, we know certainty that spices have been used in the treatment of various ailments like cancer, fever, malaria, stomach offset, nausea and many more in some cultures and within some modern treatment centers. Listed below are some common spices that have re-emerged within today’s complimentary alternative treatment centers that are currently being investigated within the medical community to determine if they contain medicinal properties.

**Turmeric:**

Turmeric, a shrub related to ginger, is grown throughout India, other parts of Asia, and Africa. Known for its warm, bitter taste and golden color, turmeric is commonly used in fabric dyes and foods such as curry powders, mustards, and cheeses. It should not be confused with Javanese turmeric.

In traditional Chinese medicine and Ayurvedic medicine, turmeric has been used to aid digestion and liver function, relieve arthritis pain, and regulate menstruation. Historically, turmeric has also been applied directly to the skin for eczema and wound healing. Today, traditional or folk uses of turmeric include heartburn, stomach ulcers, gallstones, inflammation, and cancer.

There is little reliable evidence to support the use of turmeric for any health condition because few clinical trials have been conducted. Preliminary findings from animal and other laboratory studies suggest that a chemical found in turmeric—called curcu-
min—may have anti-inflammatory, anticancer, and antioxidant properties, but these findings have not been confirmed in people.

NCCIH-funded investigators have studied the active chemicals in turmeric and their effects—particularly anti-inflammatory effects—in human cells to better understand how turmeric might be used for health purposes. NCCIH is also funding basic research studies on the potential role of turmeric in preventing acute respiratory distress syndrome, liver cancer, and post-menopausal osteoporosis.

**Ginger**

Ginger is an herb also known as Amomum Zingiber, Ardraka, Black Ginger, Cochin Ginger, Gan Jiang, Gingembre, Ginger Essential Oil, and Ginger Root to name only a few. Ginger has been used in alternative medicine as a possibly effective aid in treating nausea and vomiting after surgery, dizziness, menstrual pain, arthritis, preventing morning sickness. Ginger has also been used for weight loss and to prevent motion sickness and seasickness. However, research has shown that ginger may not be effective in treating these conditions.

Other uses not proven with research have included sudden respiratory failure, alcohol hangover, nausea and vomiting due to chemotherapy, upset stomach, high cholesterol, migraines, muscle pains after exercise, rheumatoid arthritis, trouble swallowing, loss of appetite, colds, and other conditions.

It is not certain whether ginger is effective in treating any medical condition. Medicinal use of this product has not been approved by the FDA.

**Cumin**

Cumin is a major component of curry and chili powders and has been used to flavor a variety of commercial food products. The oil, which is derived by steam distillation, is used to flavor alcoholic beverages, desserts, and condiments. It is also used as a fragrant component of creams, lotions, and perfumes. Traditional uses of cumin include to reduce inflammation, increase urination, prevent gas, and suppress muscle spasms. It has also been used as an aid for indigestion, jaundice, diarrhea, and flatulence. Cumin powder has been used as a poultice and suppository, and has been smoked in a pipe and taken orally. Cumin seeds are used in cooking and the oil is used to flavor food and scent cosmetics. Components may have antioxidant, anticancer, antibacterial, and larvicidal effects. Cumin may lower blood sugar, reduce seizures, strengthen bones, and treat the eye; however, there is no clinical evidence to support these claims. Cumin is generally recognized as safe for human consumption as a spice and flavoring.

**Cinnamon**

Cinnamon comes from the bark of trees native to China, India, and Southeast Asia. A popular cooking spice in many cultures for centuries, cinnamon also has a long history of use as a folk or traditional medicine. Cinnamon bark is used to make powders, capsules, teas, and liquid extracts. Although there are many kinds of cinnamon, Ceylon cinnamon (sometimes referred to as "true" cinnamon) and cassia cinnamon (also known as Chinese cinnamon) are the most familiar.

High-quality clinical evidence (i.e., studies in people) to support the use of cinnamon for any medical condition is generally lacking. An analysis of five clinical trials concluded that cinnamon does not appear to affect factors related to diabetes and heart disease. Cinnamon should not be used in place of conventional medical care or to delay seeking care if you are experiencing symptoms that are of concern; this is particularly true if you have diabetes.

Cassia cinnamon contains coumarin, the parent compound of warfarin, a medication used to keep blood from clotting. Due to concerns about the possible effects of coumarin, in 2006, the German Federal Institute for Risk Assessment warned against consuming large amounts of cassia cinnamon.

Cinnamon appears to be safe for most people when taken by mouth in amounts up to 6 grams daily for 6 weeks or less. Some people may have allergic reactions to cinnamon or its parts.

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UNF UNIVERSITY OF NORTH FLORIDA
Dr. Michael J. Goran

Dr. Goran holds appointments as Professor in the Departments of Preventive Medicine, Physiology & Biophysics and Pediatrics in the Keck School of Medicine at the University of Southern California. He is the founding Director of the USC Childhood Obesity Research Center and holds the Dr Robert C and Veronica Atkins Endowed Chair in Childhood Obesity and Diabetes. His research has focused on the causes of consequences of childhood obesity for almost 20 years. Dr Goran received his Ph.D. from the University of Manchester, UK prior to post-doctoral training in the US. He previously served on the faculty of Medicine at the University of Vermont, and the Department of Nutrition Sciences at UAB prior to joining USC in 1999.

By Daphne Applebee and Michael Anderson

Dr. Michael J. Goran. Director of the Childhood Obesity Research Center, USC Keck School Of Medicine spoke on May 25, 2016, at Nemours Children’s Health System on “Effects of Dietary Sugars on Obesity and Metabolic Risk During Growth and Development in Early Life.” After the presentation, Dr. Goran sat with Michael Anderson and Daphne Applebee (UNF MS/DI students), Frances Siver (UNF ISPP Coordinator) and Judith Rodriguez (Chair, Department of Nutrition and Dietetics). Together they discussed Dr. Goran’s research interests as well as current food label changes and nutrition policy. Dr. Goran feels as though the recent food label changes are a step in the right direction; however, he believes that the label could be even easier to read if certain nutrients, such as “added sugar,” were listed in teaspoons instead of grams. He also noted the haziness surrounding the “percent daily value” column as this value—though stated on the label that it is intended for a 2,000 calorie diet—may not apply to everyone, most notably young children, which may cause additional confusion. Furthermore,

Dr. Goran stated that he is interested in integrated research; his interest in childhood obesity started early while completing his first post-doctoral work. At that time, there was preliminary speculation that childhood obesity was related to low energy expenditure. Dr. Goran’s subsequent work found that to be incorrect, and he has been studying various aspects related to childhood obesity since then. At the Childhood obesity research center at the University of Southern California, they are currently working on projects (SANO-LA and STAND) to understand body fat distribution, insulin resistance, insulin-like growth factors as well as inflammatory markers and oxidative stress in overweight Hispanics and African-Americans during adolescent growth. These are two of several projects that Dr. Goran has helped shape in order to understand the landscape of childhood obesity.

During the presentation, he also mentioned the benefits of a soda or sugar drink tax that would put an additional surcharge on soft drinks specific to the promotion of reducing the overall consumption of sugar beverages. So far only Berkeley, California is the only U.S city to approve such a tax to reduce the adverse health effects of the consuming and excessive amount. Much of his extensive career has been devoted to researching the effects that sugar has on the population, with some of his most recent findings revolving around the adverse effects that fructose (especially high-fructose corn syrup) has on the body. Dr. Goran exemplifies his arduous work through his commitment and perseverance to his research and UNF is very fortunate to have been able to interview him firsthand.
What does a child with food allergies look like? Can you spot them in a group of kids on the playground? Well you may not be able to spot them, but one in thirteen U.S. children has a food allergy. Look around at any typical classroom. There’s an average of two children per classroom who have a food allergy.

Food allergies are becoming more prevalent among children everyday as their bodies experience an abnormal response to a certain food. There are a few theories on why food allergies are more common then they used to be. Some blame GMO’s, others blame a weak gut or genetics, but whatever the reason, food allergies can be very serious. So how do you know a child has a food allergy or is having an allergic reaction to a specific food? Typically, a child will eat or will have exposure to a food at least once before having any allergic symptoms. The second time that the child is exposed is when the IgE (Immunoglobulin E) antibodies react with the food, histamines are released, which can cause your child to experience hives, asthma, itching in the mouth, trouble breathing, stomach pains, vomiting, and/or diarrhea. Food allergies have been linked mostly to 8 specific foods: milk, eggs, wheat, soy, tree nuts, fish, shellfish and peanuts. Studies show that peanuts, tree nuts, fish and shellfish commonly cause the most severe reactions in children with food allergies. Although most children “outgrow” their allergies, allergy to peanuts, tree nuts, and shellfish may be life-long.

Food allergies must be treated by avoiding the foods that your child is allergic too. There is no medication to prevent food allergies. After you have seen your child’s physician and your child has been diagnosed with a food allergy and specifically the food or foods in which they are allergic to, it is very important
to avoid these foods and other similar foods in that food group. If you are breastfeeding your child, it is important to avoid foods in your diet that your child is allergic to. Small amounts of the food allergen may be transmitted to your child through your breast milk and cause a reaction. Since your child may have to avoid specific food due to their allergies you will want to make sure that they are getting the right vitamins and minerals that they need; therefore, supplements may be necessary for children with food allergies.

Food allergies can be life threatening to anyone who has them especially young children as they are unable to communicate exactly what they are feeling during their reaction. For children who have had a severe food reaction, the child’s physician may prescribe an emergency kit that contains epinephrine, which helps stop the symptoms of severe reactions. This type of medicine will give the child more time to get to the doctor as it is not a replacement for seeking treatment if an allergic reaction occurs.

As food allergies become more and more prevalent each year it is important that we are considerate of others with food allergies even if it is inconvenient. Parents are now having to adapt school lunches for their children even when their children are not the ones with the food allergy. “Nut Free” zones are becoming more common place in schools and birthday party invitations now have disclosure that when you RSVP mention your child’s food allergies. Since this is something that is not going to go away any time soon, or ever, it is important that we all know the signs and symptoms so we can help someone in need or even when it comes to our practice in the field, that we may educate parents on living with food allergies.
In the Neighborhood

With Michelle Boling, PhD, ATC, LAT

By Sara Boyd

Dr. Michelle Boling is an associate professor in the Athletic Training department within the Brooks College of Health. She is a highly respected professor and has a fantastic resume to come along with it! During her career, Dr. Boling has conducted research on a variety of topics but specializes in sports related knee-injuries as well as biomechanics and injury prevention. She has already achieved many milestones and hopes to accomplish so much more!

S.B. What made you become so interested in the athletic training field and how did you get to where you are currently at the University of North Florida?

M.B. My interest in the field of Athletic Training began when I was a sophomore in high school. I had a wonderful certified athletic trainer who worked full time at my high school and allowed students to help him out during team practices and games. As I gained experience in the field of athletic training as a high school student, I knew this was the career path that I wanted to pursue. I only applied to colleges that had an undergraduate athletic training program and was fortunate to be admitted to the University of North Carolina at Chapel Hill (UNC-CH). I graduated from UNC-CH with a degree in Exercise and Sport Science (concentration Athletic Training) and went on to pursue a graduate degree in Athletic Training from the University of Kentucky. As an undergraduate student, I completed an Honors thesis, which sparked my interest in research. At the University of Kentucky, I mentored undergraduate students interested in pursuing a degree in athletic training, guest lectured in sports medicine classes, and completed a Masters thesis. These experiences solidified for me that I wanted to pursue a doctoral degree so that I could continue to teach and perform research in the field of athletic training. Upon completion of my Master's degree I returned to UNC-CH to complete my doctorate in Human Movement Science. I graduated with a PhD in the Spring of 2008 and started my career at UNF in the Fall of 2008.

S.B. To date, what is your biggest accomplishment being at UNF- any specific award you have received or research you have conducted that concluded something outstanding?

M.B. I have had two accomplishments at UNF that have made a large impact on my career thus far. The first is receiving a grant from the National Institutes of Health to conduct a
prospective investigation of risk factors for chronic knee pain in military cadets. The second accomplishment was receiving an “Outstanding Undergraduate Teaching Award.” It really meant a lot to me to be recognized by my colleagues and students as an excellent educator!

S.B. I have read that you specialize in sports related knee injuries. What made you become interested in that specific area of study? Was there a certain occurrence that made you more interested?

M.B. As an undergraduate student, I was always really interested in the anatomy of the knee and all of the injuries that occur at this joint. There was a lot of research being published at that time (and still today) about acute knee injuries, such as ACL injuries, and I felt like there was a lack of research on chronic knee pain. Chronic knee pain, more specifically patellofemoral pain (PFP), affects people young and old and can lead individuals to live a sedentary lifestyle. I really wanted to figure out a way to help these individuals, so I decided that my research was going to focus on understanding the risk factors for developing PFP and understand what interventions are most effective for reducing pain and improving function among those with PFP.

S.B. You have conducted a lot of amazing research in your career and have an abundance of publications! Are you currently working on any projects or research?

M.B. I am currently working on a project to understand if people who develop PFP at a young age are predisposed to developing knee osteoarthritis later in life. I am collaborating with colleagues at the United States Military Academy to investigate blood serum biomarkers associated with cartilage turnover and breakdown in individuals prior to and after the development of PFP.

S.B. In the next five years, what do you hope to accomplish regarding your area of study? Do you have any specific interests that you want to further investigate and do more research on?

M.B. In the next five years, I really hope to have a better understanding of the biomechanical factors that predispose individuals to the development of PFP, determine if there is an association between PFP and the development of knee osteoarthritis, and develop an effective injury prevention program to decrease the number of people affected by this chronic condition. I truly believe if we can reduce the number of individuals who develop PFP at a young age, we will in turn reduce the number of individuals suffering from inactivity-related outcomes, such as obesity and heart disease.
According to many foodie articles, Japanese food is considered one of the tastiest foods in the world. It is almost always in the top 5 cultural foods of the world. Japanese cuisine is very interesting because many of the delicacies the Japanese eat are foreign dishes that is given a Japanese twist; rice is a great example. The Chinese helped the Japanese learn to cultivate rice around 300 B.C. Since then, the Japanese created many dishes based off of rice. In the modern era, rice has many different types of grains and qualities such as Koshihikari and Akitakomachi. To the average person these types of Japanese rice taste and feel the same but to a professional, there are slight differences that make one prefer one type over the other. I personally like Koshihikari.

Rice, which was introduced nearly 2000 years ago, is a staple food in the Japanese diet. Rice farming is very important to the food supply in Japan. Because of the demand for rice, there is even a shortage of farmland in Japan. Rice was first eaten by the upper class Japanese. At one point, the rice economy caused a gap between the rich and the poor. The poor people would eat rice dregs which did not taste as good. Now, rice is eaten by almost everyone in Japan, which is why it is a very important food supply.

Some famous Japanese dishes that people eat with rice is, tempura (fried battered vegetables), which is a dish that the Japanese invented using Portuguese cooking methods. After the long ban (around 1868) on the consumption of four legged animals was lifted, the Japanese created their own famous Japanese meats such as Kobe beef and wagyu. This is also eaten with rice.

Rice is also in many traditional Japanese dishes like sushi (fish and rice), katsudon (mean cutles and rice), sukiyaki (beef and rice), onigiri (rice ball), etc. Just like tempura, sushi was introduced by the Chinese; katsudon is a European inspired dish; foreigners introduced the art of beef eating (sukiyaki) to the Japanese. Onigiri is the only dish that is truly Japanese. Many samurais ate onigiri because of how convenient it is to eat it. It was considered a quick war snack.

A really tasty rice treat is the daifuku. It is made with mochi (pounded rice) and azuki
(redbean paste). Azuki is also originally from China but the daifuku is a Japanese original. It is a soft and chewy dessert that is popular among the Japanese and foreigners. Over thousands of years, rice has been used in many different dishes which gives it such a rich cultural history.

Overall, rice is not something people eat to become very healthy. It is a great source of carbohydrates, with a low glycemic load and some phytochemicals but lack the micronutrients of a vegetable/fruit. Many dietitians recommend people with diabetes or people trying to lose weight to not eat rice. If you are healthy or have no digestion problems, there is no need to take rice away from your diet.

In Japanese supermarkets, it is written in law that the farms where fruits, vegetables and rice are grown must be shown on the cover. Most rice only contain the area where the rice was grown but many fruits and vegetables have the farmer’s face and even their address on it. This is because Japanese agricultural regulations do not want customers to complain about food being spoiled or having negative health effects on their body. Because of this, the Japanese tend to buy local vegetables rather than foreign shipped ones such as China or Australia. To be specific, the type of rice, where it was grown, when it was picked, the amount of rice and when it was packaged must be written somewhere for the customers to see. Otherwise, rice cannot be sold in Japanese supermarkets.

Rice is Japan’s (and many other Asian country's) staple food. There are many delicious dishes one can eat that is made out of rice. Sushi, mochi, rice vinegar, and onigiri is just one of the many traditional foods and only scratches the surface for Japanese rice history.

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June in Jacksonville is practically synonymous with weekly beach ventures. When packing for a day out in the sand and sun, I often find myself stumped on what to include in terms of food. Instead of getting dragged into the dangerous practice of pit-stopping at beachside gas stations for processed snacks and cold, sugary drinks, consider some of the great alternatives I’ve included in this recipe spread.

To me, this recipe truly involves everything great about summer: bright colors, fresh fruit, and cool beverages. Be as creative as you want with your toppings and their arrangement. Disclaimer: Instagram posts may result from the creation of this recipe!

**Peach Pie Smoothie Bowl**

Ingredients:
- 1 1/2 cups frozen peaches
- 1/2 cup milk of choice
- 3/4 cup plain non-fat Greek yogurt
- 1 scoop unflavored or vanilla protein powder (optional)
- 1 tablespoon almond butter
- 1 tablespoon honey
- 1/2 teaspoon cinnamon
- 1/2 teaspoon vanilla extract
- pinch of nutmeg
- Fresh peach slices, granola, and toasted sliced almond for toppings

Directions:
1. Add all of the ingredients listed except the toppings into a blender and blend until smooth.
2. Pour the smoothie into a bowl and top with fresh peach slices, granola, and toasted almond slices.

Recipe courtesy of: Danae from Recipe Runner
**Greek Pasta Salad with Red Wine Vinaigrette**

**Ingredients:**

- For the pasta salad:
  - 2 1/2 cups uncooked pasta*, such as penne or rotini  
  *Use any kind you like: whole wheat, rice or egg noodles, orzo, gluten free....the possibilities are endless!
  - 2/3 cup sliced red onions
  - 15 cherry tomatoes, halved
  - 1 cup diced cucumbers
  - 3/4 cup sliced olives
  - 3/4 cup diced green peppers
  - 1 cup crumbled feta cheese

- For the vinaigrette:
  - 1/3 cup red wine vinegar
  - 2 teaspoons freshly squeezed lemon juice
  - 1 1/2 teaspoons minced garlic
  - 1 teaspoon sugar
  - 2 teaspoons dried oregano
  - 1/2 cup extra-virgin olive oil

**Directions:**

1. Make the pasta according to the directions associated with the type you have chosen. When finished, set aside to cool in a separate bowl and then make the dressing. In a small bowl, whisk together all of the dressing ingredients, except for the olive oil. While whisking, stream in the olive oil.

2. Add the red onions, tomatoes, cucumbers, olives, green peppers and feta cheese to the separate bowl with the pasta.

3. Pour the dressing over the pasta, tossing to combine, then cover the salad with plastic wrap and refrigerate it for at least 3 hours and up to overnight. When ready to serve, toss the pasta salad again and enjoy cold or at room temperature.

**Recipe courtesy of:** Kelly Senyei, “Just a Taste”

**Reproduced from:** http://www.justataste.com/greek-pasta-salad-red-wine-vinaigrette-recipe/
Pressed Portobello Panini

Ingredients:
- 1 Portobello Cap
- 1/2 red bell pepper seeded and flattened
- 1 Whole Wheat Sandwich thin
- 1 wedge of The Laughing Cow Smooth Sensation Cream Cheese Spread: Garden Vegetable
- A handful of Spinach Leaves
- Non-stick Spray, Kosher salt and black pepper

Directions:
1. Warm a sandwich press or George Foreman grill. Spray the mushroom cap and bell pepper with non-stock spray, sprinkle with kosher salt and pepper and press them in the grill. Cook 4-5 minutes.

2. Spread the cream cheese spread on both sides of the sandwich thin and add the handful of spinach to one side.

3. Next, assemble the sandwich with the cooked mushroom cap and pepper and then place the entire thing on the grill or sandwich press. Cook for another 5 minutes to achieve a panini-like composition.

Recipe courtesy of: GreenLiteBites Blog.
Reproduced from: http://greenlitebites.com/2012/07/pressed-portobello-panini/
Ingredients:

- 3 summer squash or zucchini (about 1 pound), sliced on a diagonal 1/2-inch thick
- 3 red, orange, or yellow bell peppers, cut into 1 inch strips
- 4 tablespoons extra-virgin olive oil, divided
- Kosher salt, freshly ground pepper
- 2 garlic cloves
- 2 tablespoons Sherry or red wine vinegar
- 4 sprigs oregano

Directions:

1. Preheat oven to 475°. Place squash and peppers on separate baking sheets. Drizzle each sheet of vegetables with 1/2 tablespoon oil, season with salt and pepper, and toss to coat. Spread out in a single layer, turning peppers skin side up.

2. Roast peppers on upper rack and squash on lower rack, turning squash once, until tender, 15–20 minutes total. Let cool slightly; remove skins from peppers.

3. Whisk garlic, vinegar, and remaining 3 tablespoons oil in a large bowl; season with salt and pepper. Add vegetables and oregano; toss to coat. Cover and let sit at least 1 hour.

Extra Tip: Pack into plastic containers or mason jars for easy, on-the-go transport!

Recipe courtesy of: Mary Frances Heck

Reproduced from: http://www.bonappetit.com/recipe/marinated-summer-vegetables
Registered dietitian nutritionist Lucille Beseler, president and owner of the Family Nutrition Center of South Florida, begins her one-year term on June 1 as the 2016-2017 President of the Academy of Nutrition and Dietetics. Congratulations Lucille!

The Academy of Nutrition and Dietetics, the world’s largest organization of food and nutrition professionals, has appointed four registered dietitian nutritionists to three-year terms as media spokespeople: Jennifer Bruning, MS, RDN, LDN, of Chicago, Ill.; Robin Foroutan, MS, RDN, of New York, N.Y.; Caroline West Passerrello, MS, RD, LDN, of Pittsburgh, Pa.; and Angel Planells, MS, RDN, CD, of Seattle, Wash.

Eighteen national leaders in nutrition, health and business will serve as the 2016-2017 Board of Directors of the Academy of Nutrition and Dietetics. Members of the Academy’s Board of Directors will serve from June 1 until May 31, 2017.

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FCAND Board Member Election Results:
2016-2017

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**Secretary**: Britney Khauv, RDN, LD

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**Nominating Committee**: Tyree Williams MS, RDN, LDN, Ana Forte RDN, LDN, and Claudia Sealy-Potts PhD, RDN, LDN

**Outstanding Dietitian of the Year**: Claudia Sealy-Potts PhD, RDN, LDN

**Recognized Young Dietitian of the Year**: Tyree Williams MS, RDN, LDN

**Emerging Leader of the Year**: Heather Huffman MS, RDN, LDN, IBCLC

*Congratulations*!!!
To begin this controversial topic, let’s delve into what makes sodas “diet”: nonnutritive sweeteners. Nonnutritive sweeteners are synthetically made sugar substitutes that have the ability to sweeten without adding calories or a glycemic effect. Though there are several different types of nonnutritive sweeteners around the world, only six have been approved in the United States by the Food and Drug Administration. These are saccharin, aspartame, acesulfame potassium (also known as acesulfame-K), sucralose, neotame, and advantame. Each sweetener possesses a unique sweetness strength.

There are different kinds of diet sodas, from the regular “diet soda” to “soda zero” and to “soda max”, each type utilizes different recipes and sweeteners. The most common nonnutritive sweeteners used are aspartame, sucralose, and acesulfame potassium.

The media plays a huge role on influencing individuals, for good or for bad. Many controversial statements have circulated the media for several years which have stirred up confusion with diet sodas. By just typing “diet soda” into Google, you can find 1,001+ reasons why it is either evil or a blessing. So does diet soda really make you gain weight? Does it really cause cancer? Why are people so afraid of it? Let’s look at the research.

A review published December 2015 looked at recent research studies concerning the metabolic effects of nonnutritive sweeteners. They looked at both human studies and animal studies. A large amount of the studies revealed that habitual consumption of nonnutritive sweeteners is negatively associated with health while a large amount of the studies were found to not negatively affect health, posing conflicting results.

Amongst the negative findings, we are faced with obesity risk, metabolic syndrome risk, type two diabetes risk, weight gain, disruptions in the body’s ability to control glucose, maintenance of energy homeostasis, interference of healthy gut microbiota, glucose intolerance, and disruptions with the sweet-taste receptors located throughout the digestive system involved in glucose absorption and insulin secretion. On the other hand, data from studies assessing the effects of very high doses of sucralose or aspartame in humans showed no negative associations with blood glucose, C-peptide, or HbA1c concentrations.

The authors pose two hypothesis likely to explain this paradox: 1) People choose to habitually consume nonnutritive sweeteners in order to combat weight gain and metabolic disease (reverse causation) 2) The processes involved in regulating energy and glucose homeostasis are affected by...
nonnutritive sweeteners which are not physiologically inert. Furthermore, the authors pose theories present throughout the review which could also explain the paradox: there’s the theory that nonnutritive sweeteners weaken the body’s ability to detect sweet taste to predict energy, causing the brain to respond less to autonomic and endocrine responses necessary to process food, i.e. the cephalic response (Swithers and Davidson theory); glucose intolerance is triggered due to nonnutritive sweeteners changing the environment of the gastrointestinal tract and disrupting gut microbiota; insulin secretion is influenced by sweet taste receptors present in the gut and pancreas which could be confused by nonnutritive sweeteners.¹

The authors delved into these research studies and found that only the glucose intolerance theory and the insulin secretion theory was assessed on humans, deeming them more relevant than animal studies (as is the Swithers and Davidson theory). The theory concerning the effect of nonnutritive sweeteners on gut microbiota is limited to saccharin, and therefore cannot be generalized that all nonnutritive sweeteners disrupt gut microbiota (more research is needed). Concerning the glycemic response theory, the authors found inconsistencies between findings.¹

The authors conclude that even though several epidemiological studies reveal an association between nonnutritive sweeteners and metabolic disorders and strong evidence supports a causality between nonnutritive sweeteners and metabolic disorders in animals, there is no clear evidence to conclude that solely nonnutritive sweeteners cause metabolic disorders in humans. They go on to say that data from animal studies have shown that nonnutritive sweeteners are metabolically active in the body, negating the previous hypothesis that nonnutritive sweeteners are metabolically inert. Moreover, most of the research evaluated in human subjects has been in regards to sucralose (or a combination of sucralose and acesulfame K). Frustrating, I know. I expected the authors to conclude that based on the studies, nonnutritive sweeteners should be banned altogether. Problems that occur within researching this topic are due to the inconsistencies in study subjects and frequency of nonnutritive sweetener use. Which nonnutritive sweetener was assessed? You cannot conclude that all nonnutritive sweeteners cause X reaction when only one or two have been assessed. Also, how can you assure that the study subject groups were all the same? Was there a variety between body weights? Were the study subjects frequent users of nonnutritive sweeteners? If so, which? The authors specifically point out that more research needs to be done to clarify the mechanisms that nonnutritive sweeteners cause the body to undergo.¹

Unfortunately, this contradictory theme is present through research studies regarding nonnutritive sweeteners and cancer. One of the most prominent animal studies regarding aspartame and cancer was a case control study done in 2005 by The Cesare Maltoni Cancer Research Center of the European Ramazzini Foundations. Sprague-Dawley rats were given several concentrations of aspartame beginning from eight weeks of age until their natural death. Following their death, each animal underwent necropsy (autopsy) in which almost all of the organs of the body were examined. The study consisted of 100-150 (per sex/per group) Sprague-Dawley rats. The daily in-
take of aspartame for humans was simulated to fit the amount for the rats. The ending results found that aspartame causes malignant tumors in both males and females, an increase in lymphomas/leukemia in males and females, dysplastic lesions and carcinomas of the renal pelvis and ureter in females, and increased malignant schwannomas of the peripheral nerves particularly in males. Therefore, this study concludes that aspartame poses to be a carcinogenic compound, even taken at doses less than the ADI for humans (50 mg/kg of body weight in the United States).\textsuperscript{6}

A second study was performed by the Cesare Maltoni Cancer Research Center of the European Ramazzini Foundation. This study was similar to the first study; however aspartame was fed to Sprague-Daley rats beginning at the fetal life stage (starting from day twelve of life) until natural death. The study found malignant tumors, lymphomas/leukemia in males and females given aspartame at the 2,000 ppm dose, and mammary cancer in females. This study further confirms the multi-carcinogenic effects of daily aspartame consumption.\textsuperscript{7}

A collection of studies done by Dr. M. R. Weihrauch summarizes relevant preclinical, clinical, and epidemiological studies done on saccharin, cyclamate, aspartame, acesulfame-K, sucralose, alitame, and neotame. Concerning saccharin, the summarized studies concluded that bladder cancer has been linked to rats fed high concentrations of saccharin. Even though rats and humans share similarities in body functions, saccharin metabolism differs. Typically, rodents are more susceptible to abnormalities of the bladder. Concerning aspartame, the summarized studies concluded that there is no solid evidence to conclude that daily consumption bears a carcinogenic risk to humans. Substantial studies have been performed regarding aspartame, but fault and criticism made by scientists and toxicologists have deemed the studies to be inaccurate. Aside from studies performed assessing the safety of products (required by the FDA prior to market approval), there have not been large studies investigating the potential health risks of acesulfame-K, alitame, and sucralose. Therefore, it is concluded that these sweeteners do not pose cancer risks to humans.\textsuperscript{8}

Also summarized in this large study was the most recent case-controlled study done on humans (published by Sturgeon et al). This study looked at artificial sweeteners in general, instead of one specific sweetener. It consisted of 1860 bladder cancer patients and 3934 controls. Factors such as smoking, urinary tract infection, consumption of coffee, and genetics were examined. They found that bladder cancer risk was not associated with those who consumed a low amount of artificial sweeteners. However, frequent consumption of artificial sweeteners did show an increased risk of bladder cancer. Therefore, they concluded that heavy use of artificial sweeteners is associated with risk of cancer development.\textsuperscript{8}

Though the studies done by the European Ramazzini Foundation on Sprague-Dawley rats revealed concern about the safety of aspartame, the European Food Safety Authority revised the studies and concluded that their methodologies and findings were not accurate. The studies were reviewed by the European Food Safety Authority’s panel which consisted of 18 scientists and toxicologists. Moreover, the U.S. Committee on Carcinogenicity of Chemicals in Food, Consumer Products and Environment (COC) also reviewed the results of the studies. A 44-page report was published criticizing the validity of the results and dismissed several of the findings. The European Food Safety Authority dismissed the incidence of lymphomas/leukemia found in the rats stating that they were not due to the aspartame dosage, but rather to the high incidence of
chronic inflammatory changes. They concluded that this was an incidental finding and therefore dismissed it. The findings of preneoplastic and neoplastic lesions in the rats were also dismissed as they concluded that the high dosage of aspartame produced renal pelvic calcification due to imbalanced calcium metabolism, which is specific to the rats. Therefore, this data is not significant to humans and was dismissed. The panel also dismissed the data regarding the total malignant tumors found in rats. They agreed that other factors may have also contributed to their development and that it was not sufficient to state that solely aspartame led to their development. Therefore, as per the U.K. Committee on Carcinogenicity of Chemicals in Food, Consumer Products and Environment, it is not possible to draw carcinogenetic conclusions from aspartame intake in the results found in these studies. The U.S. currently has approved the use of aspartame; however it is not approved for use in Europe do to the controversy of these studies. According to the National Cancer Institute, there is not sufficient evidence to safely conclude that consumption of nonnutritive sweeteners causes cancer. 

So is diet soda a friend or a foe? Well it depends. Consider the studies showing negative associations, positive associations, inconsistent findings, animal studies, human studies, research methods, research design, etc. Consider the position paper of the Academy of Nutrition and Dietetics which states that “consumers can safely enjoy a range of nutritive and nonnutritive sweeteners when consumed within an eating plan that is guided by current federal nutrition recommendations, such as the Dietary Guidelines for Americans and the Dietary Reference Intakes, as well as individual health goals and personal preference.” Consider what you know about carbonation, another very important aspect in this topic. Consider what you have learned in your nutrition classes and in any volunteering experience you have encountered. With all things considered, there still is not a precise answer but with more research you can formulate your own opinion.

References on page. 29

<table>
<thead>
<tr>
<th>Artificial Sweetener</th>
<th>Brand names</th>
<th>Sweetness compared to sugar</th>
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<tbody>
<tr>
<td>Saccharin</td>
<td>Sweet ’N Low, Sweet Twin, NectaSweet</td>
<td>200-700 times sweeter</td>
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<tr>
<td>Aspartame</td>
<td>NutraSweet, Equal, Sugar Twin</td>
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<td>Acesulfame potassium (acesulfame-K)</td>
<td>ACK, Sunett, Sweet &amp; Safe, Sweet One</td>
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<td>Sucralose</td>
<td>Splenda</td>
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<tr>
<td>Advantame</td>
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<td>20,000 sweeter</td>
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</tbody>
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Japanese Cuisine.


Diet Soda: Friend or Foe


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