

Nutri*news*

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Nursing

In the Clinic

Nutrition News: 2016



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A photograph of a red bell pepper, a silver fork and knife, and a yellow measuring tape resting on a light green napkin. The measuring tape is coiled around the fork and knife, with the numbers 16 through 36 visible. The background is white.



In the News

By Tara Kessinger

Median salaries for registered dietitian nutritionists and nutrition and dietetic technicians, registered have increased significantly more than inflation during the past two years, according to the Academy of Nutrition and Dietetics' 2015 Compensation and Benefits Survey of the Dietetics Profession.

According to the survey, RDNs' median wage in 2015 was \$30.62 per hour, representing a gain of 6.1 percent over the Academy's 2013 survey. NDTRs' median hourly wage in 2015 was \$20.19, an increase of 5 percent over 2013. The two-year inflation rate over that time, as measured by the Consumer Price Index, was 1.7 percent.

On an annualized basis, the survey shows RDNs' median full-time salary in 2015 equated to \$63,700 per year. For NDTRs, the annualized 2015 salary was \$42,000.

"Our profession continues to make economic gains that, in turn, make a career in nutrition and dietetics a desirable destination," said registered dietitian nutritionist and Academy President Dr. Evelyn F. Crayton.

"As in previous years, the survey's results show an association between Academy membership and RDNs' and NDTRs' compensation," Crayton says. RDNs and NDTRs who are members of the Academy earn more than non-Academy members: \$1.44 per hour more for RDNs, equating to \$2,995 per year; and \$1.91 per hour more for NDTRs, equating to \$3,973 annually.

Higher levels of compensation are associated with years of experience, supervisory responsibility, budget responsibility and prac-

tice area. "Clinical and community positions tend to pay less, whereas business, management, education, and research positions pay more," according to the survey.

The survey shows the highest-paid positions filled by substantial numbers of RDNs include executive-level professional; director of clinical nutrition; sales representative; research dietitian; director of food and nutrition services; school foodservice director; clinical nutrition manager; consultant (community or corporate programs); corporate dietitian and assistant foodservice director.

"It is gratifying to see employers continue to recognize the vital contributions that registered dietitian nutritionists and nutrition and dietetic technicians, registered bring to a wide range of positions in health care, education, government and private industry," Crayton said.

"The Academy is committed to doing all we can to support our members in raising the perceived value of nutrition services and increasing compensation opportunities, while respecting legal and ethical restraints that govern businesses and professions."

The 2015 Compensation and Benefits Survey of the Dietetics Profession is available to media by contacting the Academy at media@eatright.org or 312/899-4769.

For more information visit
www.eatright.org

UNF DND *News*

Congratulations MS/DI 2015 Graduates



Nursing

By Jessica Glosson



A Vital Piece of the Nutrition Care Process Puzzle

The importance of the adoption and acceptance of an interdisciplinary approach to nutrition care has grown imminent in recent years. As patient cases increase in complexity and comorbid conditions rise in prevalence, it is vital to ensure the involvement of multiple members of a healthcare team when determining the correct course of action to take in treating a patient in terms of medical and nutritional needs.¹

Nurses can prove to be a Registered Dietitian's most valuable ally in the clinical setting. These healthcare professionals take on an

extremely active role in championing for patient care; nurses administer medications, monitor conditions, maintain medical records, and actively communicate concerns and changes between the patient and other members of the assigned healthcare team². In a hospital setting, nurses further the nutrition care process extensively. They screen every patient upon admission, carefully documenting biomarkers and patient information of interest for RD and physician review. Those identified to be malnourished or "at risk" of becoming so are provided with further methods of nutri-

tional assessment; nurses can initiate food intake assessment forms along with a dietitian who later analyzes the results and provides a clinical assessment unique to the patient according to AND standards². In a sense, nurses serve as the main “go-between” for patients and healthcare team members. Nurses build strong rapport with patients as a result of extensive interaction and care; a nurse can be responsible for ensuring that the patient’s environment is conducive to increasing food consumption and dietary adherence. This goal is accomplished and facilitated by continuous communication between the nurse and patient and food service staff, dietitians, and the assigned physician.

Once a Registered Dietitian has created a customized nutrition care plan for a patient, the proposed interventions are documented and ordered by the dietitian while nurses facilitate patient adherence to these recommendations. In cases of malnourishment or other extreme conditions, the physician is extensively involved in order to code the associated diagnosis and continue nutrition-related care discussions with the patient². Any changes over time involving dietary intake, weight and function are monitored and documented by nurses; dietitians respond accordingly by adjusting the patient care plan if needed. Prior to discharge, a dietitian is responsible for conducting the main education and counseling sessions while a nurse later answers further questions on discussed topics and reinforces the information covered by the RD.

For those wishing to combine a career of nursing with an additional passion for nutrition, multiple specialized career paths exist. A Clinical Nurse Nutrition Specialist, for example, works to specifically guide, train, and give advice to patients who require forms of nutrition support, such as parenteral nutrition (PN) or total parenteral nutrition (TPN).³ Other popular

areas of specialty include oncology and gastroenterology. Those interested in specializing in nutrition and nursing must possess excellent communication and time management skills and must have several years of experience as an RN under their belt. Relevant teaching and clinical assessment experience is also encouraged along with membership and involvement in relevant specialty practice groups³. The Nation Nurses Nutrition Group, for example, was founded in 1986 and seeks to increase nutrition-related education for those belonging to the nursing profession⁴.

Through the entire nutrition care process in the clinical setting, nurses take on a very involved role and have the highest degree of interaction with patients. Nurses serve as the main facilitators of communication between patients and other healthcare team members. They too must have a current and thorough understanding of relevant nutrition concepts and be able to apply this information to practice. Whether it’s through gaining approval for additional food items from dietitians, documenting and communicating meal tolerance, or monitoring the effectiveness of a proposed intervention, nurses are ardent patient advocates and serve as invaluable members of the healthcare team.

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Eat Your Veggies

Broccoli Rabe

By *Natalie Wrightson*

Recipe: Lemon Broccoli Rabe and White Beans ¹

Ingredients

- 3 tablespoons olive oil
- 1 small lemon, very thinly sliced, seeds removed
- 2 anchovy fillets packed in oil
- 4 garlic cloves, thinly sliced
- ½ bunch broccoli rabe, chopped
- Kosher salt and freshly ground black pepper
- 2 fifteen oz. cans white kidney beans, rinsed
- ¼ cup fresh flat-leaf parsley leaves
- 2 tablespoons finely grated Parmesan, plus more for serving
- Crushed red pepper flakes (optional)

Directions

Heat oil in a large Dutch oven or heavy pot over medium heat.

Add the lemon, anchovies and garlic.

Let cook until the lemon is softened and brownish and the anchovies fall apart; stirring occasionally (about 5 minutes).

Add the broccoli rabe and season with salt and pepper.

Let cook until it is a bright green in color and is crispy/tender; occasionally toss (about 5 minutes).

Add beans and ½ cup water to the pot.

Bring to a boil.

Reduce heat to a simmer.

Let it simmer for about 5 minutes, or until the liquid has reduced by half; stirring occasionally.

Mix in the parsley and 2 tablespoons of Parmesan.

Transfer to a platter and sprinkle with red pepper flakes and more Parmesan, if desired.

Name ²	<i>Brassica rapa</i>
Origin ²	Either in China or the Mediterranean
Nutrition Facts (1 bunch cooked – 437g) ³	<p>Calories: 144kcal Fat: 2g Cholesterol: 0mg Sodium: 245mg Total Carbohydrate: 15g Dietary Fiber: 12g Sugars: 3g Protein: 17g %DV Vitamin A: 396% %DV Vitamin C: 270%% %DV Calcium: 52% %DV Iron: 31% %DV Vitamin E (Alpha Tocopherol): 55% %DV Vitamin K: 1398% %DV Folate: 78% %DV Thiamin: 49% %DV Riboflavin: 36% %DV Vitamin B6: 48% %DV Niacin: 44% %DV Pantothenic Acid: 20% %DV Magnesium: 29% %DV Phosphorus: 36% %DV Potassium: 43% %DV Zinc: 16% %DV Copper: 16% %DV Manganese: 83%</p>
Interesting Facts ^{2,3}	<p>Also called Rapini, Broccoli Raab, Broccoletti, Broccoli di Rape, Broccoli di Raap, Cime di Rapa, Rappi, Friarielli, and Grelos.</p> <p>It is frequently used in Italian and Chinese cooking.</p> <p>It is rich in the phytochemicals sulforaphane and indoles.</p> <p>It did not appear in North American cooking until the 1920s when Italian farmers brought the vegetable to the United States.</p> <p>Despite its name, the vegetable is more closely related to the turnip, not the broccoli.</p> <p>It is the most popular vegetable in Hong Kong.</p> <p>Their taste is very similar to mustard greens.</p> <p>References on page 27</p>

Hot Topics and Current Trends



New Year's Resolutions: Suggestions

By Lexi Rossow

Ah, the fresh beginning of a new year. The holidays are finally coming to a close, even though your “mindful eating” tricks to make it through while holding onto your usually calorie count flew out the window most of the days, its time to start anew with the incoming 2016 year!

January 1st is the ultimate king of all heartfelt proclamations, “I’ll start on Monday...” Even though this year January 1st is a Friday, it’s still everyone’s favorite day to begin the infamous yearlong journey of New Year Resolutions, whether they even make it into the end of January.

I, personally, love New Year’s Resolutions. Even though most people make jokes about how often they are abandoned once started, I have held onto mine until that fateful December 31st for the past two years. Hopefully, 2016 will finish out a trilogy of kept promises to myself!

The reason I bring up New Year’s Resolutions in the “Hot Trend in Nutrition” section is because everyone’s favorite type of New Year’s Resolution usually has to do with a “healthier me,” whether it be about nutrition, cutting back on calories, exercise, meditation, flexibility, less stress or internal happiness. And that is why I decided for this issue to write up the Top Five New Year’s Resolutions that are easy, day-to-day changes that can impact your health positively. They vary from quick reminders for the daily activities to full, lifestyle commitments.

Cook At Home

This one popped in my head as I was licking my plate from Grandma’s home cooked Christmas dinner. Almost every single person lives in access to a kitchen, and hundreds of easy recipes flood the Internet, especially on Pinterest. This New Year’s Resolution can be implemented as an every day change or a

weekly ratio change (as in, cook at home more than you go out to eat.) Plus, I heard it saves some money too!

Find a New Sport

As an outdoor enthusiast, trying out new sports is a favorite thing of mine. Always thought those Instagram famous runners looked cool? Become one! Check out <http://trailrunner.com/> for some nearby trails to try out, or sign up for a Spartan Race, or any other various mud run. Dedicating yourself to a new sport to work at every day keeps things fresh, challenging, and activates new muscles from your usual exercise regimen!

Eat New, Healthy Food

This one is easier said than done. Sometimes, and especially after bulk-food shopping at Costco, I find myself eating the same foods over and over, week after week. One of the amazing things about the human body is its acceptance for a huge amount of diverse foods. Trying out new fruits and vegetables keeps things fresh in the kitchen, and you're less likely to fall back into the daily trend of cereal for breakfast, ham and cheese sandwich for lunch, mac'n'cheese for dinner.

Go to Sleep On Time

Did I say I was an outdoor enthusiast? That's not all. Ask anyone who knows me and they will tell you that to contact me past 9:30 p.m. and you better just expect a response the next morning. Going to bed early, and therefore, waking up early, is the second best goal I could ever offer. Waking up with time to make a hearty breakfast, work out, or simply meditate a little before your daily activities keeps the 3 p.m. post-work tired-bug from biting!

Research Every Day

Probably not what you were expecting

for my top New Year's Resolution. It has nothing to do with what you lift at the gym or what you eat in the kitchen... it's about what you fill your mind with. Mental strength is the greatest muscle you could work out, and knowledge is your strongest weapon. When you start learning about where your foods are coming from, or what happens to your body when you stop working out, or the health benefits of meditation, your entire world can be flipped upside down. So many people mindlessly go about their lives without understanding why "Healthy Lifestyles" are so important. Start out with researching your favorite foods you like to eat, and where they come from, and then move onto other topics that interest you. Usually, once the knowledge of how important healthy living begins to flicker into a flame, it leads to a wildfire of understanding.



Fruit of the Month *Club*



Kiwis!

By Meghan Moholland

"Kiwi without the strawberry? You must be joking!" you say.

We are not joking. Packed with vitamins and minerals, kiwi puts a kick in your step and no dent in your diet. Sure, strawberry kiwi was your favorite flavor as a child, but it's time to move on.

*Actinidia deliciosa*¹ is the perfect name for the delicious kiwi. Beneath its fuzzy brown exterior lies juicy flesh colored bright green and speckled with black seeds. This sweet fruit comes from the Yangtze River Valley of China and has been cultivated for hundreds of years for its medicinal purposes². Today, the kiwi is produced all over the world and used in a wide variety of dishes. With 273% of the

daily value of vitamin C, 89% of the daily value of vitamin K, and 21% of the daily value of fiber, we can see why this fruit is so popular³.

While kiwi is commonly eaten out-of-hand, it is also served in appetizers, salads, meat dishes, and desserts. Pies and pudding, cakes and ice cream, breads and beverages: the kiwi just doesn't stop. Kiwi can even be made into wine¹!

Before you try fermenting kiwis at home, let's figure out how to pick the right one. Like citrus fruits, kiwis are usually best between November and April. They should yield just slightly to pressure; this is how you know your kiwi is ripe. Unripe kiwis can be stringy and acidic, so be sure to wait until your kiwi is

ready. Firm kiwis can be stored for up to eight weeks at room temperature, so store in the fridge to speed up their ripening. Once ripe, they can be stored in the fridge for up to a week¹. That's a short window so be sure to have your recipes ready! Here's one for starters:

Kiwifruit Sweet Omelet⁴

- 2 kiwis, peeled and sliced
- Powdered sugar
- Ground cinnamon
- 2 eggs, separated
- 1/8 teaspoon salt
- 1/4 teaspoon grated lemon peel
- 1 tablespoon butter or margarine

Begin by sprinkling the slices of kiwi with 1 tablespoon of powdered sugar and a dash of cinnamon in a dish. Let this sit for 20 minutes, turning occasionally. Meanwhile, beat the egg whites with salt until peaks form. Gradually add 1 tablespoons of powdered sugar, beating the mixture until stiff. In another dish, beat the egg yolks until a thick consistency is achieved. Add lemon peel to the yolk. Fold this mixture into the egg whites.

On medium heat, mix butter, 1/2 tablespoon of powdered sugar, and a dash of cinnamon into a oven-proof skillet. Then pour in the egg mixture, smoothing out the surface. Cook the mixture for 3 to 5 minutes until the eggs are puffed and the bottom is a golden brown. Then place the skilled into an oven heated to 325 degrees and bake for 10 minutes.

Once done, loosen the edges of the omelet and fold the sliced kiwi into it.⁴ Voila! You've made breakfast for two.

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Fit & Fueled

New Year, New Food!

By Casey Kiernan

With the welcoming of 2016, we are welcoming in New Year's resolutions, the most popular coinciding with losing weight and getting in shape. Dieting and eating healthier is a big step many people will take starting this month. We are all human and at times we tend to crave certain foods, and often times, these cravings are for foods that are not so good for us. By understanding your body's cravings vs. needs, as well as healthier substitutions, you will be able to choose your foods wisely. For healthier eating habits, food substitution and recipe modification are great ways to get on the right track.

Did you know that when you crave a type of food, it can mean that you are deficient in a certain vitamin or mineral? Here's what some of your most common cravings may be telling you and what you might want to snack on instead¹:

Sweets

WHAT YOU NEED: carbon, phosphorus, sulfur
WHAT YOU SHOULD EAT: fresh fruits, fish, eggs, nuts, kale, cabbage

Bread or toast

WHAT YOU NEED: nitrogen
WHAT YOU SHOULD EAT: fish, nuts, beans

Salty foods

WHAT YOU NEED: chloride
WHAT YOU SHOULD EAT: fish, unrefined sea salt

Acidic foods

WHAT YOU NEED: magnesium
WHAT YOU SHOULD EAT: raw nuts and seeds, legumes, fruits

General overeating

WHAT YOU NEED silicon, tryptophan, tyrosine
WHAT YOU SHOULD EAT: nuts, seeds, raisins, sweet potatoes, spinach, oranges

Lack of appetite

WHAT YOU NEED: vitamin B1, vitamin B3, manganese
WHAT YOU SHOULD EAT: seeds, beans, fish, walnuts, almonds, pineapple, blueberries

When it comes to healthy eating, it is basically substituting the better food choices. The new year is a great opportunity to start a new diet pattern and with small changes, you can see big results! Have a happy and healthy New Year!

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Hot Food Trends: 2016

By Tara Kessinger

1. Seaweed is the new kale: Seaweed is the new trending super food for 2016. Seaweed is predicted to not only be seen in more salad dishes but used as flavorings for popcorn and chips as well as seaweed flavored spaghetti.



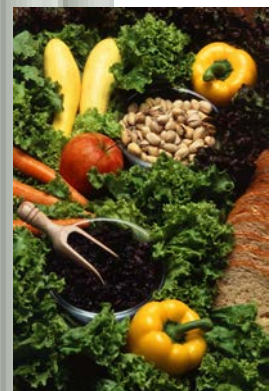
2. Hyper-local restaurant menu items offerings, restaurant rooftop gardens and rooftop garden dining. More fresh vegetables will be grown in house and offered as daily local specials.

3. Poke bowls will be the new Sushi. Trendy restaurants will begin offering their own signature poke bowl concoctions to diners.



4. Veggie Swap in dishes. More full vegetarian dishes and entrees will be offered on restaurant menus. Stand alone vegetarian dishes with new flavor profiles like burnt or charred will begin to steal the show.

5. Root-to-Stem dining. Chefs will be using everything from stems and leaves to unusual cuts of meat and throwing very little waste away.



6. Spicy ethnic condiments will be spotlighted with traditional dishes. Spices such as Indian ghost pepper, Southeast Asian sambal and North African harissa will be added to help spic up dishes.



The Fad *Finder*

The Nightshades

By Michelle Mackie

Have you ever heard the term nightshade? While it sounds like a very good science fiction novel, it is actually a family of over 2,000 varieties of plants. Some of which we regularly consume, this short list includes tomatoes, eggplant, white potatoes, tobacco, and peppers.¹ Some believe this group to be the cause of certain inflammatory conditions such as arthritis, fibromyalgia, and irritable bowel syndrome, inflammatory bowel disease, and chronic body pains. The Nightshade Diet simply eliminates these foods in all forms, which means no ketchup, fries, marinara sauce, or stuffed bell peppers.

So what is everyone's beef with the nightshades? Prior to the 1800's, this group was considered inedible because certain varieties, such as atropa belladonna, were known to be deadly toxic.¹ Since then the short list of nightshades above has become commonplace in our diets. While most consider these foods delicious and, with the exception of the tobacco, nutritious they contain a compound known as a glycoalkaloid that has stirred up

some debate in the health community.² Glycoalkaloids are natural pesticides produced by these plants to defend them from fungi, bacteria, viruses and insects. It is also worth mentioning that this compound can be found in several non-nightshade plants such as cherries, apples, and sugar beets.¹ It works by tightly binding to cholesterol, disrupting the structure of a predator's cell membrane causing them to burst or leak.²

This kind of cell damage can increase the permeability in the intestines contributing to conditions such as inflammatory bowel disease (IBD), according to researchers at the University of Alberta.³ IBD is a general term for inflammation on part or all of the digestive tract. The most common types of IBD are Crohn's Disease and Ulcerative Colitis. It is also known that certain cooking methods, such as frying, can increase the concentration of glycoalkaloids. Interestingly enough, the prevalence of IBD is highest in countries that regularly consume fried potatoes.³

There is also another way that glycoal-

kaloids can work, they can block the enzyme cholinesterase. Which is responsible for breaking down acetylcholine, the chemical messenger that carries signals from the nerves to the muscles to induce a contraction. Without the enzyme cholinesterase to degrade acetylcholine, the muscles can become overstimulated leading to paralysis, convulsions, respiratory arrest, and even death.¹ This is actually similar to the pathway in which military nerve gas works but don't freak out just yet and allow me to put your mind at ease.

Glycoalkaloids are very poorly absorbed in the gastrointestinal tract and most people do not eat nearly enough of them in the first place.¹ Potatoes contain the highest levels of glycoalkaloids out of the nightshades we consume. Due to their known toxicity, the FDA limits the glycoalkaloid content in potatoes to 91mg/lb. In order for a 150 pound human to reach a toxic level of glycoalkaloid they would need to consume (and effectively absorb) 2.2 pounds of uncooked, peel-on potatoes.¹ When potatoes are stored and processed properly the levels of glycoalkaloids drops. As for the nightshade fruits, they are far less saturated with glycoalkaloids than potatoes. It is estimated that tomato glycoalkaloids are 20 times less toxic than those in the potato.¹

As with any food sensitivity, eliminating nightshades for a couple of weeks and observing the result will tell you if you are reacting to them poorly. While the internet is full of anecdotal articles about relief from chronic pain and arthritis, the only real research I discovered was the one discussed above. Glycoalkaloids ability to tightly bind to cholesterol can increase intestinal permeability.³ For those who already have inflammatory intestinal conditions, eliminating nightshades may help avoid exacerbation of the condition.^{1,2}

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In the Clinic



Orthorexia Nervosa

By Tara Kessinger

Orthorexia Nervosa is an eating disorder that was first discovered in 1997 by Dr. Steven Bratman. As Dr. Bratman defines it, orthorexia nervosa is an unhealthy obsession with healthy foods to the point where foods perceived as unhealthy are shunned and only “pure” foods are allowed to be eaten by the individual.¹ Unlike other eating disorders, such as anorexia nervosa or bulimia nervosa in which the food obsession is about weight and body image, orthorexia nervosa patients avoid foods containing refined sugar, trans fats and /or preservatives and follow an extremely strict dietary regimen. The need to eat only “clean” foods becomes an all-consuming obsession which causes the individual considerable mental stress.

Although orthorexia nervosa is not currently recognized by the DSM-V as a clinical

diagnosis², many experts confirm the validity of orthorexia as a mental health disorder and believe it should be included as a specific eating disorder; however, other experts believe orthorexia should be diagnosed as an obsessive compulsive disorder.¹

Orthorexia nervosa is a progressive eating disorder. The disorder typically begins as an innocent quest to live a healthier lifestyle through diet and exercise. The individual begins to add a few healthier food choices to their diet, and begins to eliminate foods that are perceived as “bad” from the diet. As time progresses, the individual begins to follow increasingly stricter rules in an effort to be “more pure.” The individual starts to spend more time thinking about food, preparing meals, researching healthy foods, and creating lists of “good” and “bad”

foods. The individual gradually gets to the point where he/she is so obsessed with healthy eating, that most of the hours of the day are consumed with thoughts of food. Straying from these self-imposed rules results in the individual experiencing intense guilt and stricter adherence to food rules and lists.

In addition, the individual with orthorexia nervosa is very open with others about his/her eating preferences. Extreme pride is taken when the individual is seen by their peers as being a “health-nut.” An abnormal sense of self-righteousness develops and the individual perceives him/herself as the food-expert. It is not uncommon for the person to begin looking down on others who do not follow the same dietary rules, which results in the loss of friendships and possible isolation from others. This loss of friendships and social networks can lead to increased preoccupation with healthy eating to the point where the person begins to see extreme changes in weight (loss) and may even experience nutrient deficiencies.¹

To be clear, being concerned about healthy eating does not mean you have orthorexia nervosa. It is the abnormal preoccupation with healthy eating to the point of doing harm to oneself that separates a person with orthorexia nervosa from a person who wants to adopt a nutritionally balanced diet.

According to Dr. Steven Bratman, answering the following question, can help aid in the diagnosis or orthorexia.¹

- Do you care more about the virtue of what you eat than the pleasure you receive from eating it?
- Do you spend more than three hours a day thinking about healthy foods?
- Do you look down on other people who do not eat like you?
- Has the quality of your life decreased as the quality of your diet increased?
- Do you feel guilty if you stray from your diet?

Evidence suggests that the disorder is becoming more common and prevalent each year. Orthorexia occurs equally in women and men, but the most commonly seen cases occur in middle class adults, who are at least 30 years old and who have a college degree. As orthorexia nervosa is a newly recognized eating disorder, it is not clearly defined as of yet; however, experts agree that the treatment for and recovery from orthorexia involves the help of a team of skilled practitioners to include registered dietitians.²

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Children Who Sleep Less Consume More Calories At Night

In a recent article published in *Pediatric Obesity* by McDonald and colleagues, they noticed a correlation between amount of sleep and calories consumed at night. McDonald evaluated data from 1,278 families regarding duration of sleep and energy intake at night in the form of drinks, snacks, or meals. Infant sleep duration was measured with a questionnaire at 16 months, and 3-day diet diaries were used to measure energy intake at 21 months. They found that infants who slept less than ten hours had lower energy intakes in the afternoon (3 pm - 7 pm) however they consumed more calories between the hours of 7 pm and 6 am than the infants who slept for at least ten hours a night. The average calorie consumption for the shorter sleeping infants was 166 kcal compared to 46 kcal for the longer sleeping infants. McDonald and colleagues also determined that ninety-eight percent of the calories consumed at night by infants came from milk drinks. This can be used to guide parents regarding excess energy intake at night for young children.

Type 2 Diabetes Increases Dementia Risk

Type 2 diabetes increases the risk for dementia in general, however there are two types of dementia, vascular and non-vascular. Alzheimer's disease is a type of non-vascular dementia, meaning it is not related to problems with blood vessels in the brain and instead is caused by the dying off of nerve cells and the buildup of abnormal proteins. Vascular dementia results from impaired blood flow to the brain. This is usually caused by a series of small strokes. Type 2 diabetes increases the risk for vascular dementia, especially in women as compared to men. Author Rachel Huxley reviewed 14 studies with more than 2 million people and at least 100,000 dementia patients before reporting her findings in *Diabetes Care*. Her study found that people with diabetes were 60 percent more likely to develop dementia, and women were twice as likely to develop vascular dementia with diabetes compared to those without. The author also notes that due to the observational studies used, the relationship between diabetes and dementia may not be causal, and could be caused by other factors such as obesity.

Many U.S. Airlines Fail To Offer Healthy Foods, Survey Finds

Charles Platkin, an advocate for nutrition and public health, conducts annual surveys regarding airline foods which include calorie levels of foods, the variety of offerings, and the number of healthy offerings. Surprisingly Virgin America came in first with an average of 408 calories per meal. They serve Ginger Soba Noodles or a Provencal Tuna Sandwich to their passengers. Delta and JetBlue tied for second, with Delta using Luvo to provide some of their food. Luvo is a health-focused frozen food company which provides lower calorie meals such as the Grilled Chicken Wrap with 460 calories. JetBlue, tying for second has lower calorie choices like the Grilled Chicken and Brie Sandwich at 680 calories or the Chobani Yogurt and Granola at only 210 calories. While some airlines may provide healthies options, they are also the only options. American Airlines has cut back on food options and only serves Chicken Cobb Salad or the Asian Chicken Wrap for lunch and dinner, coming in at 310 and 620 calories respectively. Scaling back can be seen with many of the airlines, including Southwest who only give the option of pretzels or peanuts. According to Platkin, improvements have been made in airline foods, however he suggests eating a substantial meal before you leave and to bring snacks such as nuts, fruit, and energy bars for the ride.

FDA Gives Food Industry More Time to Define “Natural”

The FDA asked the public to comment about if they should define the term “natural” and set guidelines to be used on food products. This would include genetically engineered items or products made with genetically engineered ingredients. The National Products Association asked the FDA for an additional 90 days, past the February 10th deadline, to get more input from its members. The FDA granted the 90 day extension, so the public has until May 10th to submit comments. The FDA previously considered natural to mean that there are no artificial or synthetic ingredients, including color additives when producing the food.

By *Kristen Drake*

The Supplement *Shelf*



MCT Oil

By Natalie Wrightson

MCT oil is a light yellow color, odorless, and is liquid and transparent at room temperature. MCT is an abbreviation that stands for 'medium-chain triglycerides'. The supplementation of MCT oil to diet and medication began with them being used as a fat source for persons who cannot tolerate dietary fat.¹ Normally, dietary fats are long-chain triglycerides but medium-chain triglycerides are manmade through the processing of certain oils like palm kernel or coconut oil.² MCTs bypass the normal digestion that long-chain fats go through and are absorbed directly into the blood stream. This mechanism allows the MCTs to be used as quick energy for the body.¹

There are many medicinal uses for MCT oil. It can be used in conjunction with other medicines to assist in the treatment of absorption disorders like diarrhea, steatorrhea, and celiac disease as well as digestion issues associated with gastrectomy and short bowel syndrome. MCTs can also be used in the treatment

of chyluria (milky urine), chylothorax (a rare lung disease), gallbladder disease, AIDS, cystic fibrosis, Alzheimer's disease, and seizure disorders in children. In total parenteral nutrition, MCTs are sometimes used as the fat source since the nutrition is being delivered intravenously and most patients receiving this method of nutrition suffer from gastrointestinal malfunctions. Intravenous MCTs can also help reduce muscle breakdown in patients considered critically ill.²

Recently, athletes and fitness fanatics have become more interested in MCT oil supplementation because it is theorized to decrease fat mass and increase lean muscle mass as well as give you more energy.^{1,2} As stated before, MCTs bypass the typical digestion process and can be absorbed and used quickly and directly as energy for the body.¹ The reason behind this phenomenon is the fact that the body metabolizes MCT more like a carbohy-

drate rather than a fat. Unlike normal dietary fat, MCTs do not go through the lymphatic system. Instead, they are delivered directly to the liver where they are metabolized into ketones which can be used as energy for the body. This also explains why people who follow a ketogenic diet typically include MCT oil in their diet. Another benefit to MCTs being able to bypass typical fat digestion is they are less likely to be stored in adipose tissue since they are able to be used as quick energy (like carbohydrates).¹ These properties to MCT oil supplementation have not been proven yet, but there is strong evidence behind the claims.

A study published in *The American Journal of Clinical Nutrition* was done in order to determine if the consumption of MCT oil really does improve body weight and fat loss. MCT oil use was compared to the use of olive oil use in the diet of 49 overweight men and women aged 19 to 50 years old. The participants followed the same 16 week weight-loss plan, the only difference was the consumption of either olive oil or MCT oil. This study concluded "Consumption of MCT oil as part of a weight-loss plan improves weight loss compared with olive oil and can thus be successfully included in a weight-loss diet. Small changes in the quality of fat intake can therefore be useful to enhance weight loss."³ Another study published in *The American Journal of Clinical Nutrition* was done to determine the thermic effect of MCTs versus long-chain triglycerides in men. The study included seven health men who followed a dietary pattern of 400 kcal meals incorporating either MCTs or long-chain triglycerides. Indirect calorimetry was used before and 6 hours after the meals to determine metabolic rate. The results of this study show that the long-term substitution of MCTs for long-chain triglycerides in a diet can be used to produce weight-loss, as long as the energy intake remain constant.⁴ This research is still preliminary so before MCT oil can truly be the next miracle weight-loss supplement, more research needs to be done.

MCT oil is generally safe for most people. If you are pregnant and/or breast-feeding, or suffer from diabetes or liver problems, MCT

oil is not recommended.² Other safety concerns associated with the supplementation of MCT oil include the negative impact of MCT oil on cardiovascular disease risk. This concern was brought to light in a few studies that were done to test the usefulness of MCT oil supplementation on weight-loss. A study published in the *Journal of the American College of Nutrition* was done to determine whether or not MCT oil increased the risk of cardiovascular disease. This study examined the metabolic risk profile of 31 men and women aged 19 to 50 years old. The participants followed a 16 week weight-loss program and consumed either olive oil or MCT oil in the form of muffins and/or liquid oil. At the weight-loss program was completed, the metabolic risk profile of the participants were compared and analyzed. The results of the study determined that MCT oil did not adversely affect the metabolic risk factors in the participants so MCT oil can be safely used in a -loss program.⁵

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From the

By Tara Kes

Research shows vitamin C is essential for the growth and repair of tissue all over the body. Vitamin C helps heal wounds and repair and maintain healthy cartilage, bones, teeth and skin. As an antioxidant, vitamin C fights free radicals in the body which may help prevent or delay certain cancers and heart disease, and promote healthy aging. Vitamin C also seems to reduce the progress of cartilage loss in those with osteoarthritis. Though it may not keep you from catching a cold, there is evidence that high doses of vitamin C may decrease the length of cold symptoms by as much as one to 1½ days for some people.



If you're feeling forgetful, it could be due to a lack of sleep or a number of other reasons including genetics, level of physical activity, and lifestyle and environmental factors. However, there's no doubt that diet plays a major role in brain health.

The best menu for boosting memory and brain function encourages good blood flow to the brain — much like what you'd eat to nourish and protect your heart. A recent study found that the Mediterranean Diet helps in keeping aging brains sharp, and a growing body of evidence links foods like those in the Mediterranean diet with better cognitive function, memory and alertness.



For more information visit www.eatright.org

Since 1980, the Dietary Guidelines have provided advice on how to make informed choices to promote overall health, including being physically active, consuming fewer calories and creating and maintaining a healthful diet. The Dietary Guidelines continue to evolve, and the federal government initiated a project to expand the population included in the guidelines, since the guidelines only have provided dietary guidance for Americans age 2 years and older. By 2020, evidence-based food and beverage guidance will be included for infants and toddlers — birth to 24 months — and women who are pregnant.

Some babies are sensitive to certain foods, but how do you know which foods? Certain reactions, perhaps a rash, wheezing, diarrhea or vomiting, are tell-tale signs that a food doesn't agree with him.



The good news is that most babies outgrow these reactions once their immune and digestive systems mature. In the meantime, monitor your baby for food reactions.

- Keep track of everything your baby eats. Until you know what foods upset your baby, serve single-grain infant cereals and plain fruits, vegetables and meats instead of mixed varieties. If your baby has a reaction to a certain food, stop that food.
- As you introduce new foods, offer one at a time. Wait a couple of days before introducing another new food. That way if your baby has a problem, you'll know which food caused it.
- If any food causes a significant and ongoing problem, talk to your baby's doctor or a registered dietitian nutritionist. Together, you can establish a plan that is best for your baby.



Upcoming Events

First Coast Academy of Nutrition and Dietetics

Table 1 Tasting Benefit Night

Join us for a night to benefit the Professional and Student Scholarships for the First Coast Academy of Nutrition and Dietetics.

This event includes a sampling of several wines and light appetizer-style food buffet.

Table 1 Thursday Tasting

Thursday, January 21, 2016

5:30pm-7:00pm

Table 1

330 A1A North

The Shoppes of Ponte Vedra

\$25 per ticket

Tickets must be purchased in advance. Tickets are available through www.eatrightjax.org and will be available for purchase at the UNF Graduate Seminars CEU Event on November 13th & 20th.



100% online | 12 months full time, 16-24 months part time

Earn your Master of Science in Nutrition and Dietetics online.

The MS in Nutrition thesis and non-thesis option is a distance learning degree for those students who wish to emphasize the application of advanced nutrition knowledge in clinical or community based health programs. Applicants for the MS Thesis or Non-Thesis option in Nutrition are persons with a baccalaureate degree from a U.S. regionally accredited institution and ACEND/CADE accredited program with a major course of study in Food and Nutrition, Human Nutrition, or Food Management or Registered Dietitians.



UNF is ranked in the Top 75 in the country for "Best Online Graduate Education Programs," which includes data of nearly 1,000 distance education programs nationwide.

Nursing: A Vital Piece of the Nutrition Care Process Puzzle

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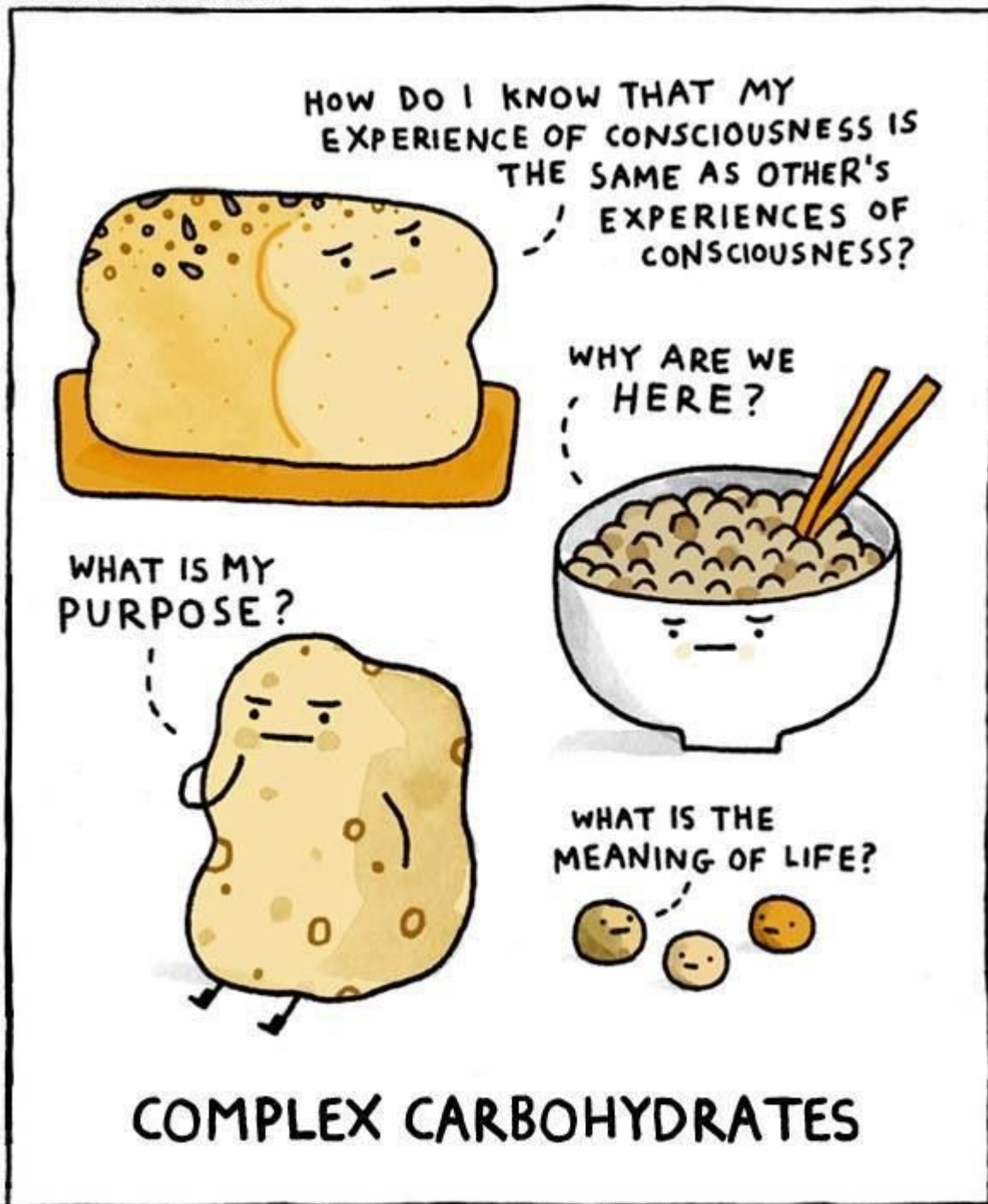
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