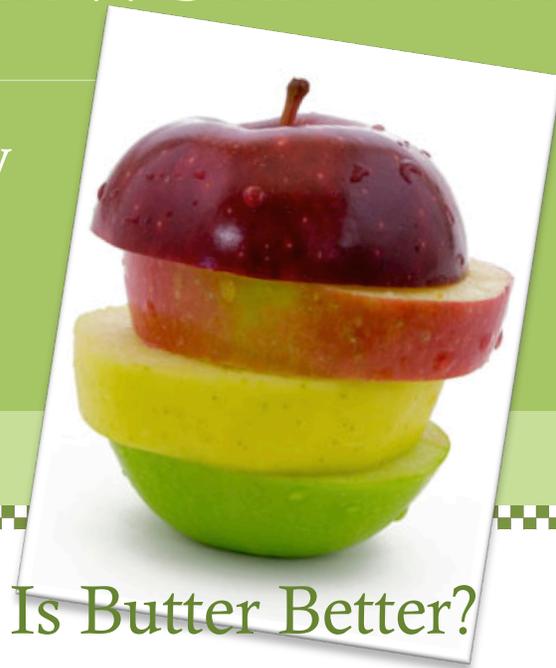


NUTRITION NEWSLETTER

Educating our community
one bite at a time

Spring 2015



Is Butter Better?

Ingredients

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My philosophy has always been that it is never just one substance/nutrient or even a food that cures you (or makes you sick). It has always been about the whole package, including your lifestyle as well as your diet. Recently butter or saturated fat (found in animal fat like butter and meat) has made the headlines touting that it is not bad for you. The study

(<http://annals.org/article.aspx?articleid=1846638>) that caused many bacon pans to sizzle stated there was no finding to support eating more polyunsaturated fats (found mainly in plant foods but also a small amount in meat/animal product) AND a low amount of saturated fat to reduce the risk for coronary heart disease (CHD). Unfortunately, what this article did not say is the hidden agenda by the global dairy industry to reduce the negative image of saturated fat and to promote sales by financing publications such as this. In addition, the studies reviewed for this article were based on observations and not controlled studies with established baseline data. The American Heart Association continues to recommend that we should consume no more than 5-6% of our total calories from saturated fat. This means 94-95% of our caloric intake should be from plant foods (which are free of saturated fat).

Certainly there are small amounts of saturated fat in certain plant foods (such as coconut, palm, and even nuts, avocado, cocoa). *Continue on page 7*

What's Our Secret?

Maybe you have wanted to try those new grains you keep hearing about. So what is stopping you? Well, perhaps it is the simple fact that you don't know what to do with them. Take for example, quinoa (pronounced "keen-wa"). They look foreign and you've searched the Internet but you are just not confident enough to cook with it. They come in white and red (pictured) but they have the same nutrition. So, *what's our secret?* Use quinoa anywhere you would use rice. If you have a favorite recipe that calls for rice, replace it with the same amount of quinoa (and liquid). Follow the same cooking directions written for rice.

Quinoa is a good source of fiber, protein, iron, vitamin B6, and magnesium.



Ask the Nutrition Experts: How do vegans get their protein?

This is a common question I get. Let me start by saying I have been eating a plant-based diet since I was 13 years old. I ran numerous marathons and cycled many centuries fueled by plants. The one thing that I never worried about is my protein intake.

What is protein?

Many people mistakenly think that protein is synonymous with meat. Certainly meat contains protein, but so do many plant foods. If we look at protein more closely we will find that it is simply made up of 20 different amino acids. So basically we eat protein to get these amino

acids. The easiest way to think about amino acids is to think of them as letters (but there is only 20 letters in this alphabet). When you put certain letters together, they form a word (in this case, we call it a *protein*). Each word (protein) has its own meaning (function). But here's the amazing part about our body—it does not really care where these letters come from. Our digestive system will break down the words (proteins) we eat into the individual letters (amino acids). Our body dictates what words (proteins) we need to make.

Likewise, what word we eat does not determine what word we will create in our body. Say for example we eat a

protein called "MEAT". Our digestive system will break it down to M, E, A, T. Although we now have all the letters needed to make the word MEAT, the body most likely will not need MEAT, instead, the letters are used to make: ME, EAT, TEAM, TEA, AT, MAT, etc. These letters will be combined with other words we eat to spell other necessary words (proteins) that our body needs.

So how do vegans get their protein?

Just like everyone else, from foods that contain proteins. In this case, they get the proteins (letters) from plant foods.

-Dana W. Wassmer

Spice of Life

By Cori Burns, Medical Assisting Professor & D. W. Wassmer

They say variety is the spice of life, but in regards to your health, it might be more appropriate to say that *spice* adds to the variety of life. There are a myriad of ways in which natural foods can boost your overall health and the first place you should look is in your spice cabinet. Here you will find many hidden remedies that you can incorporate into your whole

food diet while at the same time boost your immune system, fight inflammation and assist in preventing cancer.

These seasoned ingredients not only add flavor to your food but also add antioxidants that may reduce your risk of chronic diseases. Antioxidants protect your cells from oxidative damage caused by everyday living that can lower immunity, cause cellular damage (that can lead to cancerous



cells), and maybe even slow down aging and age-related diseases (such as atherosclerosis, Alzheimer's, arthritis). In other words, antioxidants are our #1 defense system.

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Spice of Life *continued from page 2*

Antioxidants from food are more effective than those from supplements. When it comes to spices and herbs, a little goes a long way! For example, ½ teaspoon of ground clove may contain as much if not more antioxidant as ½ cup of blueberries! In addition, dried herbs and spices contain as much of their original antioxidant properties as their fresh counterparts. The best way to retain their flavors and antioxidant properties is to store them in airtight containers and away from heat, moisture and light. (So stop shaking your spices directly into a steaming pot!) Do not store them in the refrigerator as the humidity will add moisture and cause them to deteriorate—the exception is the red pepper family (chili powder, paprika, etc.), which can be stored in the refrigerator. Most dried spices should be used within a year. Whole spices (cloves, peppercorns) and ground spices (salt, cinnamon) can be kept for up to 3-4 years (if stored properly).

Use the Table below as your *natural pharmacy* guide.

Item	Benefits
Onions (<i>Allium cepa</i>)	Onions are a strong antioxidant due to their high level of quercetin and have been shown to decrease blood lipid levels, decrease platelet aggregation and lower blood pressure. Onions have also been shown to lower blood sugar levels comparable to prescription oral hypoglycemic medication. They have been used successfully in inflammatory conditions such as asthma and atopic dermatitis and also have strong anti-tumor effects.
Garlic (<i>Allium sativum</i>)	Like onions, garlic is a strong antioxidant with similar properties. There are Sanskrit records documenting the medicinal use of garlic over 5000 years ago and it has been used in Traditional Chinese Medicine for over 3000 years! It is used as an antibacterial, antiviral, antifungal and anthelmintic (intestinal parasites). It has strong immune enhancing properties and through this also has anticancer effects. It has been shown to be protective against heart disease and strokes due to its anti-inflammatory properties and its interference with the formation of atherosclerosis. It is also useful for gastrointestinal disturbances and is categorized as an antispasmodic, digestant, expectorant and diuretic.
Turmeric (<i>Curcuma longa</i>)	This herb is part of the ginger family and is the major ingredient in curry powder. Medicinally it is used mainly as an anti-inflammatory both internally and externally as a poultice. It is listed in Chinese and Ayurvedic Medicine as an antioxidant, anti-carcinogenic, anti-inflammatory and antimicrobial. It is also considered a protectant of GI, cardiovascular, neurological and hepatic (liver) health. Curcumin (one of the active components of turmeric) is showing great promise in cancer research for its ability to inhibit tumor growth.
Cayenne Pepper (<i>Capsicum frutescens</i>)	Also known as chili or red peppers, or the milder version – paprika. The primary component of this pepper is capsaicin, and while it is hot to taste, it can actually reduce body temperature. It has also been used extensively for its antioxidant and cardiovascular effects. It has been shown to reduce the risk of atherosclerosis and lower blood cholesterol and triglyceride levels. When used topically, capsaicin dulls pain receptors and inactivates the inflammatory mediators in the joints of osteoarthritis and rheumatoid arthritis patients. This quality makes capsaicin extremely useful for many pain-associated conditions such as diabetic neuropathy, arthritis, post-mastectomy pain and mouth pain due to chemotherapy.
Ginger (<i>Zingiber officinale</i>)	Ginger is another herb that has been used for a variety of medicinal purposes for thousands of years, most of which are now backed by research. It is used as an antioxidant, inhibitor of platelet aggregation, cardiostimulant and hypotensive agent. Due to its warming abilities, it has been used historically as a diaphoretic and is best known for its anti-nausea and anti-emetic effects.



Giving Back to the Community

By Veronica Lopez, Adjunct NUTRI Faculty

A universal message throughout our Nutrition courses revolves around food security and access to nutritious food as the basic foundation toward improving overall health and preventing chronic diseases. In our inaugural, Nutrition Newsletter we highlighted nutrient-dense foods and the impact of excess calories on our national epidemic of obesity. However, what if you happen to be one of the estimated 14.3% of American households that do not have enough to feed your family? According to the 2003-2008 National Health and Nutrition Examination Survey, individuals with very low food security were at greater risk for nutrition-related diseases. Fortunately, the majority of nutrition-related diseases can be prevented through proper nutrition, thus there is a need to fight hunger in America, especially in our surrounding community.

Elk Grove Food Bank

Founded in 1974, the Elk Grove

Food Bank (<http://www.elkgrovefoodbank.org>), advocates and recognizes the importance of providing nutritious food to individuals and families in need. One of the goals of the Elk Grove Food Bank is to improve community health through access to nutritious food, nutrition education and meal planning. The services they provide include Emergency Food Programs, Senior Brown Bags, Weekend Meals, After-school Snacks, Wellness Bags, Clothes Closets and Support Works. In the Fall 2014, with the assistance of the Director, Marie Jachino, and Case Manager, Judy Sala, we establish a volunteer program to provide Nutrition 300 students an opportunity to share their nutrition knowledge, to be a part of the fight against hunger, and to be active participants in their community.

Pay It Forward

CRC Nutrition 300 students participated in preparing food boxes that were nutritionally balanced, deliver and load donated items, unload delivery trucks and clean the warehouse (pictured above).

Nutrition 300 student, Adrian Brown, stated that his experience was “humbling and fulfilling” and “the most gratifying class project I had ever done.” Kimberly Cser stated, “After each shift I worked, I would drive away with a peaceful feeling that I made a difference in someone’s life.” While Brian O’Donnell, stated his favorite duty was courtesy clerk, because “it gave me the opportunity to interact with the clients of the Food Bank and hearing a little bit of their stories.”

Judy Sala and Marie Jachino were impressed with the number of our CRC Nutrition 300 students who participated in the program and their commitment to continue volunteering. Our CRC Nutrition 300-Elk Grove Food Bank volunteer program was such a success we are excited to welcome our next cohort of Nutrition 300 students ready to *pay it forward*.

The next time you think about donating to the food bank reach for the bag of legumes, box of quinoa, or brown rice. It is not just about ending hunger, it is about *being healthy!*

“Let food be thy medicine and medicine be thy food” - Hippocrates

The Not-So-Sweet Truth About Stevia

Conflicting research leaves consumer in the dark about stevia products.

By Jackie Wereda, NUTRI 340 Student

Stevia seems like the perfect sugar solution for people trying to cut calories, battle diabetes, or just want to follow a more natural diet, but is it too good to be true?

Maybe stevia *is* the wonder plant that is sweeter than sugar and free of calories, but the stevia for sale in your grocery store may not be the wholesome plant sweetener you think it is. Truvia and PureVia (Coke and Pepsi products) are actually rebaudioside A, a chemically derived compound of the stevia plant that has been refined, packaged, and marketed to you as the *all natural* and *healthy* sugar alternative, stevia.

Stevia is derived from the shrub leaves of the stevia rebaudiana plant and is not digested or absorbed by the human body (which makes stevia calorie-free). Stevia has been used as a natural sweetener in South America for hundreds of years (with no documented problems), but not in the form of pure rebaudioside A. Until 2008, stevia (leaf and extracts) were only available as dietary supplements in the U.S. (it was not generally recognized as safe or GRAS) because the safety of the product was still in question. The Food and Drug Administration (FDA) must approve all “food additives” in the United States before they are added to consumer goods. In December 2008, the FDA approved rebaudioside A as GRAS

and the Acceptable Daily Intake (ADI) was established at four milligrams of stevia per kilogram of body weight, which is the equivalent of about two stevia sweetened beverages a day. Rebaudioside A was chosen as the optimal extract because it is the sweetest and least bitter of the steviol glycosides found in stevia. The steviol glycosides are the molecules responsible for the degree of sweetness we taste.

In 1985, chemists and researchers determined that metabolized steviol (isolated from the steviol glycosides in stevia) was highly mutagenic in the liver of rats. These findings were confirmed by another group of researchers in 1996 when they found steviol to be mutagenic and caused “chromosome aberrations and gene mutations in mammalian cells.” A comprehensive review was conducted by a research team at UCLA and they concluded that steviol and steviol glycosides to be mutagenic and the researchers urge the FDA to halt the GRAS approval of rebaudioside A until further tests are completed on the compound.

Since the 1985 study, there have

been numerous comparable experiments, but the findings have varied drastically and there has not been a definitive consensus regarding the genotoxicity (genetic damage or cell mutation) of steviol or steviol glycosides in relationship to the human body. The majority of experiments find steviol and



Steviol was highly mutagenic in the liver of rats.

steviol glycosides to be weak mutagens, but the majority of studies have been financed by the companies that are trying to sell stevia. This conflict of interest makes it very difficult to determine what information is truly independent.

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Stevia continued from page 4

The bottom line is that we don't know enough about steviol glycosides yet. Until further testing is completed and stevia is proven safe for human consumption, caution should be exercised when choosing to consume stevia extracts like rebaudioside A. Steviol seems to exhibit mutagenic tendencies, especially when consumed at high quantities, so consumers should be familiar with the ADI limits. There are few products in this country that have benefitted the health of Americans by being refined. Refined sugars, refined grains, refined and processed snacks all have done more harm than good. What makes refining stevia any different?

**Did You Know...**

When the weather dips, we tend to gravitate to our favorite cup of (hot) coffee. Plain (black) coffee contains no significant calories. In fact, coffee contains some good antioxidants. However, today's coffee drinks are more than just plain coffee. Many are loaded with calories, fat and sugar. So next time you want to have your cup of joe at your nearest Starbucks, consider how much you are really getting. The table below shows the nutrient information for a **Grande** (16 fl oz) serving using **2% milk** and **NO whipped cream**. Whipped cream adds an additional 70 calories, 0 protein, 2 grams of carb, 7 grams of fat and 5 mg of sodium.

(http://www.starbucks.com/menu/catalog/nutrition?drink=espresso#view_control=nutrition) Compare the numbers below with what is recommended daily intake for an average healthy adult (Daily Value):

Daily Value	Cal 2000	Protein NA (g)	Carb 300 g	Fat 65 g	Sodium <2400 mg
Starbucks Drink					
Caffé Latte	190	12	18	7	150
Caffé Mocha	290	13	42	8	140
Cappuccino	120	8	12	4	85
Caramel Macchiato	240	10	34	7	130
Cinnamon Dolce Latte	260	11	40	6	135
Flavored Latte	250	12	37	6	150
Iced Caffé Latte	130	8	13	4.5	100
Iced Caffé Mocha	230	9	36	6	90
Iced Caramel Macchiato	230	7	34	6	125
Iced Cinnamon Dolce Latte	200	10	34	4	85
Iced Flavored Latte	290	7	30	4	100
Vanilla Latte	250	12	37	6	150
White Chocolate Mocha	400	15	61	11	240
Caramel Brulee Frappuccino	300	6	63	3.5	270
Cinnamon Dolce Frappuccino	350	15	64	4.5	0
Double Chocolate Chip Crème Frappuccino	270	5	51	6	250
Green Tea Crème Frappuccino	290	5	62	2.5	220

(Great-Grandmother) Hun's Cooked Greens

By Makayla Hopkins-Davis, Nutrition Student

Ingredients

2 bunches dino or lacinato kale
 2 bunches collard greens
 2 bunches mustard greens
 1 medium red onion, diced
 1 teaspoon minced garlic (~2 cloves)
 1 teaspoon granulated garlic/garlic powder
 1 teaspoon ground cumin
 1 teaspoon smoked paprika
 2 cups vegetable broth
 2 cups water
 ½ teaspoon sea salt or Himalayan

salt, or more to taste

½ teaspoon ground black pepper
 1-2 Escabeche jalapeños (Makayla pickles them with peppers, carrots, and onions from her garden)
 1-2 teaspoon crushed red pepper (for extra heat)

Procedure

In a dry pan, over med-high heat, caramelize the diced onions and garlic, adding a few tablespoons of water or broth, if needed. Wash greens well, and chop into 1/2 inch pieces. Add greens

and remaining ingredients to pan with onions and bring to a boil. Reduce heat, cover and simmer for 40-45 minutes, if you like the greens soft. Add to Hun's Black-Eyed Peas! (Next page.)





What's In?

With the New Year and winter upon us, it is a great time to try new foods. Take time to enjoy the fruits and vegetables that are in season.



January, February,
March – what's in
season?

Cactus Pear	Beets
Clementine	Broccoli, Raabe, Rapini
Dates	Brussels Sprouts
Grapefruit	Cabbage
Kiwi fruit	Collard greens
Kumquats	Fennel
Mandarin	Kale
Oranges	Leeks
Pummel	Parsnips
Tangerines	Rutabagas
Red banana	Sweet potato
Red currants	Turnips

What Changed for Me—from a Nutrition Student by Makayla Hopkins-Davis, Nutrition Student

At 19, I was 100 pounds overweight; my favorite meal was two McChicken sandwiches with ketchup, large fries, and sweet tea with no ice, (so I could get more tea). You could ask anyone that knew me and they would tell you, I was never in the kitchen cooking, I was always at the table, waiting. I knew that I needed to make changes, so I got rid of all the junk and stocked up on plants, and a year later, I was hundred pounds lighter and learned how to cook! I became so “into food” that I started to grow my own. Fast forward to now, I’m 22, maintaining my weight and a garden. I just finished one of the best nutrition classes in the country, am living a plant-based lifestyle, and above all else, loving every minute of it! I feel great!

There is no doubt that my plant-based lifestyle has been key to my health transformation, losing the excess weight and seeing my energy levels soar. I would never have imagined that changing what I ate could impact every part of my life. Although not everyone in my family eats the way that I do, at least not yet, it is so fun and rewarding to be able to experiment with our most loved family recipes and make them plant-based, so that we can ALL enjoy them! As Professor Hagenburger always says, “Love the foods that loves you back!” Two of those special recipes (on page 4 and below) come from my great-grandmother, Hun.

When I think of my great-grandmother, Hun, I think about the kitchen and good food. We visit her in North Carolina once or twice a year and she always has food ready for us when we arrive and packed up for the plane ride home. She’s 93-years-old and still spends majority of her time in the kitchen. A few of her famous dishes are mixed collard greens and black-eyed peas. During this past visit, I showed her ways to make her traditional recipes plant-based so that we could all enjoy her cooking and improve our health. What surprised me the most was how open-minded she was about tweaking recipes she had been eating and cooking for years. She enjoyed the plant-based versions that we cooked together and frequently calls to tell me how inspired she is to eat better and how amazing it makes her feel.

The sky is the limit for Makayla Hopkins-Davis, as she is pursuing a bachelor’s degree in nutrition and runs Scarlet’s Farm.

(Great-Grandmother) Hun’s Black-Eyed Peas

By Makayla Hopkins-Davis, Nutrition Student

Ingredients

1 pound bag of black-eyed peas, dry
1 medium red onion, diced
3 garlic cloves, minced
4 cups vegetable broth
4 cups water
1 teaspoon sea salt or Himalayan salt, or more to taste
1½ teaspoons ground cumin
1½ teaspoons ground black pepper
1½ teaspoons granulated garlic/garlic powder
1½ teaspoons smoked paprika
½-1 teaspoon cayenne pepper (optional)

Procedure

Sort and rinse black-eyed peas, then soak in a large bowl of water overnight in the fridge. Drain and rinse the soaked beans. Sauté onion in a tablespoon of vegetable broth. Once the onions caramelize, add the garlic to cook for ~1 minute. Add the rest of the vegetable broth and water and bring to a boil. Add black-eyed peas and simmer for 30-35 minutes. Add salt, if using, and remaining spices, and cook for an additional 35-40 minutes, or until peas are tender. Serve with Hun’s Cooked Greens!

Is Butter Better?

CONTINUED FROM PAGE 1

However, people eating more of a plant-based diet are overall healthier (compared to those who do not). In the end, it is about how much is consumed, what is consumed as well as its source (of saturated fat).

It is easy to point the finger at one thing and identify it as the only culprit because that is how the research studies are designed—to look at one thing. However, each one of us is unique and is exposed to many things beyond our control (unlike a caged animal). To simply say, “saturated fat causes coronary heart disease” may be misleading. However, a person who does not think about what he eats, eats food based on convenient instead of nutrients, and does not exercise regularly will most likely suffer from health problems—now that would be accurate to say, but unfortunately, would not make headlines—nor will there be research money pouring to support this statement. Regardless, we need to focus on eating more whole/unprocessed plant-based foods. The truth is, there is no magic pill, no special nutrient, nothing sensational that would grant us the permission to indulge.

-Dana W. Wassmer



Feedback? Comments? Questions? Contact us! We love to hear what you think about our newsletter.

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