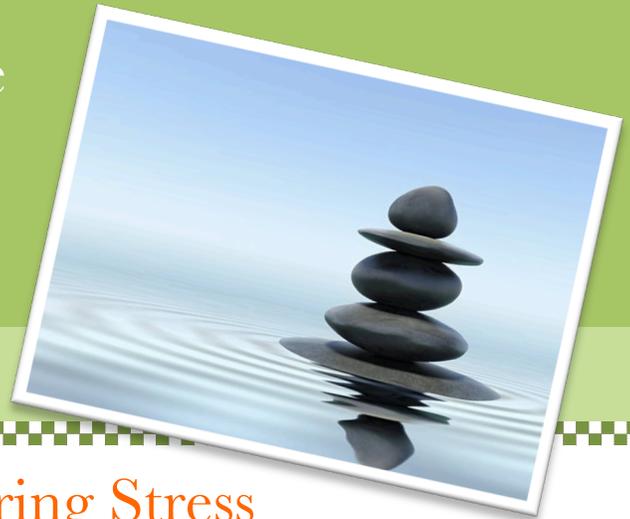


NUTRITION NEWSLETTER

Educating our community one
bite at a time



Fall 2017

Ingredients

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Conquering Stress

Hurricane Harvey, Hurricane Maria, Las Vegas shooting, California fires...it seems you cannot pick up the paper without reading another terrible headline. It is not enough to just to volunteer or to write a check (although, these are still much needed), but you have to wonder how these terrible and stressful events affect the individual. In simple terms, stress will happen, but how can we minimize the harmful effect of stress on our health?

Stress or more specifically our body's response to (real or imaginary) stress can have a negative effect on our body and health. Cortisol is one of the stress hormones and is involved with our body's natural "fight-or-flight" response. In a situation of immediate danger, cortisol and other stress hormones help increase the energy production (glucose) in our body so that we can fight or run away from a threat. The hormones also initiate an increased heart rate and blood pressure in order to deliver the important glucose as well as oxygen to our (muscle) cells. In other words, these actions occur to prime and support the body for action. However, in doing so, it also limits the needed resources to other bodily functions such as digestion. In this manner, stress can slow the secretion of the digestive juices and contraction (movement) of the digestive muscles.

The stress hormones are decreased when the danger or threat is
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What's Our Secret?

I get this a lot—"What's in your pantry?" But the question is not what is in MY pantry but what should be kept on hand at all times. Aside from your favorite (fresh or dried) herbs and spices, you should always have your common grain you will eat (e.g., brown rice, quinoa, etc.), dried or canned beans, rice vinegar, other vinegar (wine, balsamic, apple cider, etc.), nuts (that I keep in my freezer), nut butter (e.g., peanut butter), whole grain pasta, bouillon/broth, onions, bulbs of garlic, lemon/lime (that I juice and keep in the freezer) and I always have one or two different leafy greens (spinach, kale, etc.) in the fridge. This way, if I did not plan well, I can always make a meal with these items I have on-hand.



Ask the Nutrition Experts:

What is an easy 20-minute meal?

The best meals are the ones that are already prepared for you! This is the reason why fast food is so popular. For those who are trying to eat healthier, there are home delivered meal kits (e.g., Blue Apron, the Green Chef, and the Purple Carrot, etc.). They do the shopping and prepping for you. All you need to do is mix, heat, assemble, and serve. Unfortunately, this comes at a price that not many can afford.

At the end of the day, what is a quick meal that you can prepare that is also good for you? To do this, you need to have a fairly stocked pantry (see *What's Our Secret*) and appropriate cooking tools/equipment (this can take years to collect but is well worth the effort).

Here are some quick fixes:

1. With your favorite grain,

you can use it to make a warm salad. Chop up some onions and mince 1-2 cloves of garlic. Throw it into the pot with the grain, add the appropriate amount of water (and/or use bouillon/broth for more flavor) and cook until the grain is done. Mix the leafy greens with the cooked (hot) grain (e.g., brown rice)—add a choice of bean, vegetables (mushroom, peppers, etc. or leftover cooked veggies from the night before works too) and/or tofu, you can add it with the leafy greens. Stir in your favorite sauce (e.g., soy sauce) and spices (limit your salt) and serve.

2. Do the same thing, but instead of a grain, use your favorite whole grain pasta.

3. Make a loaded spud! You do not have to use a plain white potato. You can opt to use a sweet potato (and get more

vitamin A). Rinse and puncture the potato and place in the microwave for 3-minute intervals (testing after each cycle to test for doneness). While it is cooking, open and drain a can of beans, add thawed (frozen) corn, diced onions, red pepper, &/or chili pepper (if have/desire). Top these on your cooked spud and add your favorite salsa. (You can add avocado too.)

Healthy eating does not have to take a lot of time or money. It is best to plan your meals ahead and/or prepare a large batch and portion them into freezer-safe containers so it is always ready when you need it.



Restriction Restricts Results

By Emily Raney, Nutrition Student & D. Wassmer



One of the most common ways to lose weight is to restrict the amount of food consumed. However, new evidence shows that constraining food intake leads to poor long-term weight loss. Restricting calories and/or food choices increase stress in the body to levels that ultimately work against weight loss goals.

The hypothalamic-pituitary-adrenocortical (HPA) axis is responsible for the production of cortisol (a stress hormone) and is highly responsive to stressful events. The HPA axis helps the body react and adapt to stress by allowing for the secretion of different hormones to direct energy to where the body needs it the most in order to deal with both real and perceived threats. The HPA is directed mainly by the nervous system, which calls for the release of corticotrophin releasing factor (CRF) in response to homeostatic disruptions. The release of CRF directly leads to the release of cortisol into the circulation. Both fasting, starvation and restrictive dieting lead to an elevation in cortisol. The body perceives the dietary restraint in the same way as any

The higher the cortisol level, the more appealing a high calorie diet becomes.

other physiological stress. Low calorie or restrictive dieting is stressful to the body in two-fold: the body is stressed from simply taking in a low amount of calories, and it is stressed again by the cognitive restraint involved in maintaining a low calorie diet. In addition, the higher the cortisol level, the more appealing a high calorie diet becomes. A high calorie diet can alleviate the elevated stress levels but contradicts weight loss efforts. The overexposure of cortisol and other stress hormones in the body can disrupt many regulatory processes including digestion and body weight. An elevation of cortisol can increase the visceral body fat storage and adipose cell maturation. Cortisol promotes gluconeogenesis (making glucose from our protein sources) in the liver leading to an elevated blood sugar level. Unfortunately, cortisol also suppresses the level of insulin (needed to deliver the sugar to the body cells) so the cells are starved of energy and will initiate a hunger signal to the brain causing people



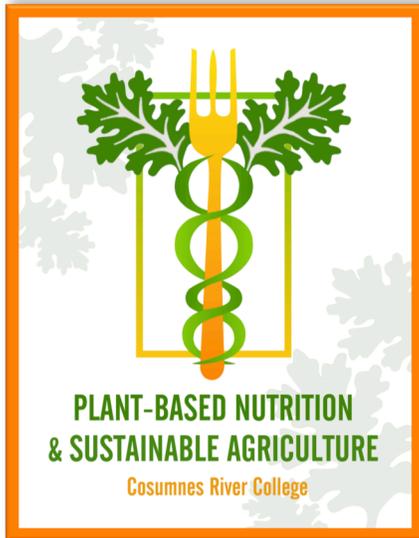
to overeat (especially high-calorie foods) while the unused sugar is eventually converted to fat and stored in our adipose tissue.

A cross-sectional study was conducted with women who were identified as either rigidly restrictive dieters (severely restrict their food choices) or low restrictive dieters. Women who were rigidly restrictive in their food choices experienced more stress than those who were less restrictive even when both ate the same amount of calories. Simply restraining certain foods or food groups has deleterious effects on reaching weight loss goals because the restricted dieting hinders a person's ability to stick with his/her diet for the long term to promote weight loss and maintenance of weight lost.

Further research is needed to better understand if the effects of stress on the body from dieting can be mitigated

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Launch of the Plant-Based Nutrition & Sustainable Agriculture Certificate Program



The Plant-Based Nutrition & Sustainable Agriculture Certificate Program brings *farm-to-fork* into the classroom. It provides the science that supports the benefits of whole plant-based foods for the health of the individual as well as the environment. The program provides hands-on experience in the kitchen, as well as in a sustainable garden on campus.

Classes started this Fall and the Sustainable Agriculture course (HORT 313) will be offered this spring (2018). Look at the delicious products made by the students in the NUTRI 331 Plant-Based Nutrition Principles and Preparation class below! For more information about the certificate, please go to <https://www.crc.losrios.edu/areas/ct/nutri/PBNSA>



Restriction Restrict Results ~continue from page 3

with intermittent maintenance phases and/or a more gradual introduction to a caloric deficient diet. Finding the lower limit of calorie intake necessary to promote weight loss that will not elicit a harmful cortisol or stress reaction would presumably allow for people to promote weight loss less stressfully. A better definition of what low-calorie dieting is could be used to help those who wish to lose weight. While it has been demonstrated through animal studies that there is an immediate decrease in cortisol levels after returning to a normal diet as well as being allowed the freedom to choose one's own diet, this raises the question if low-calorie diets followed by a return to maintenance calorie diets can mitigate the short-term elevation in cortisol production.

Fad diets have gained popularity in the last decade as people have become more eager to lose weight. Unfortunately, the diet involved in fad dieting is typically restrictive in calorie and/or food group(s). This can lead to the release of the stress hormones, creating that stressful environment resulting on unsuccessful long-term weight loss. If weight loss is the goal, perhaps a less restrictive approach (at least in terms of foods and food groups) needs to be considered to alleviate the stress response.

Did You Know: Halloween Treats

Ever wonder how many calories are actually in each of those “snack size” or “fun size” treats? (Source: The Daily Plate and About.com)

Candy	Serving size	Calories
Almond Joy	1 snack size	91
Baby Ruth	1 fun size	85
Butterfinger	1 fun size	85
Candy Corn (Brach’s)	11 pieces	70
Hershey’s Kisses (milk chocolate)	1 kiss	26
Hershey’s Kisses (with Almond)	1 kiss	23
Hershey’s milk chocolate bar	1 fun size	67
Hot Tamales	1 sm pkg (14 g)	50
Jolly Rancher	1 stick (11 g)	43
Jr. Mints	1 fun size	50
Kit Kat	1 fun size	73
M & M, Plain	1 fun size	88
M & M, Peanut	1 fun size	93
Milky Way	1 fun size	75
Mr. Goodbar	1 snack size	90
Mounds bar	1 snack size	92
Reese’s Peanut Butter Cup	1 snack size	88
Skittles, Original Fruit	1 fun size	80
Snicker’s	1 fun size	80
Tootsie Roll	1 roll	50
Whoopers	1 sm pouch	100
York Peppermint Patties	1 sm patty (14g)	53



What Changed for Me – From a CRC Student

By Bradly Correia; published in the Lodi News Sentinel

“I am not overweight or unhealthy” is a common excuse cited by many of my nutrition students at the beginning of the semester, including Bradley Correia, who grew up in Rio Vista. By taking action and making simple choices, Brad began to reap benefits that he never anticipated. In his own words...

I was never concerned about being overweight or unhealthy. I

always believed cooking homemade meals and avoiding eating out was the path to great nutrition. However, what I did not know was putting my health at risk. I was not aware that because of the food choices I was making, I was merely surviving instead of thriving. I enrolled in a college nutrition class to fulfill my graduation requirements. Little did I know, “The Nutrition Professor”,

Timaree Hagenburger, was going to make such a profound impact and help me see that “I’m not overweight or unhealthy” was neither a free pass nor a good excuse for me to continue eating the Standard American Diet.

Since I grew up cooking traditional meals with my dad, I was surprised by how much fun I was having experimenting with plant-based, whole foods!

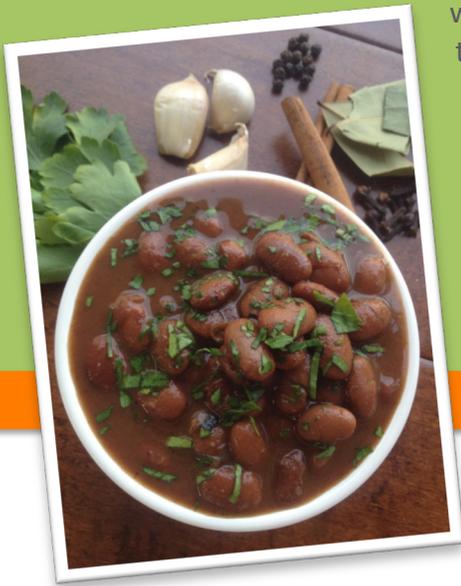
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What Changed for Me - continue

I also modified my favorite dishes by adding nutrient-rich ingredients and leaving out animal products, oil and refined sugars. My “go-to” stir-fry dinners were now better than ever, as I started adding mushrooms, red cabbage, bok choy, frozen corn, oil. As I began cooking with more plant-based, whole foods, I was eager to make a new version of my great-grandmother’s Portuguese beans, and it was a huge success! In my avó’s honor, (avó means grandma in Portuguese), my father and I used to make these beans for my birthday and they were served at the annual “church barbecue” in Isleton. Two years ago, I began making the beans for the holiday get-togethers with my father’s side, the Correias, who grew up on the Farms in Sacramento Delta. The original recipe called for bacon, with bacon fat used to sauté the onions, garlic and spices. I omitted

the bacon, and cooked the onions, garlic and spices in a hot, dry skillet, without any oil. The spices are what make them “Portuguese beans,” not the bacon or bacon fat. The beans turned out delicious, and now I can eat bowl after bowl, knowing the food I always loved loves me back.

Enjoying food that nourishes my body and mind, in ways I was previously unaware of, has become my new habit and plant-based eating is my new normal. My move from “excuse-itarian” to “do-er” showed how seemingly “healthy” individuals, such as my former self, can tremendously improve my quality of life, one bit at a time.



Ingredients

2 lbs pinto beans, dry
1 bay leaf
2 cinnamon sticks
8 whole cloves (~ ½ tsp ground)
8 allspice berries (~ ½ tsp ground)

For the “sauce”:

2 medium onions, diced 1
6 garlic cloves, diced
8 oz can tomato sauce
1.5 Tbsp cumin
Tbsp chili powder
1 tsp black pepper, freshly ground
1 tsp smoked paprika
salt, to taste (optional)

Procedure

- Sort and rinse the dry beans, then soak overnight in a large stockpot (water level 2” above beans).
- Drain and rinse beans. Add beans back to the pot with fresh water to cover.
- Add bay leaf, cinnamon, cloves, and allspice to the pot, and cook over medium heat while preparing the sauce (in a separate pan). If the beans reach a boil, reduce heat to a simmer.
- For the sauce, begin cooking the onions without oil in a large, pre-heated sauté pan.
- When the onions are golden, stir in the rest of the seasonings and cook for 1-2 minutes to “bloom” the spices and wake up the flavors. (Expect the mixture to be dry and stick to the pan, just keep stirring constantly to avoid burning!)
- Add tomato sauce and 2 cups water.
- Stir well with a wooden spoon to incorporate all of the onions and spices from the bottom of the pan. Simmer sauce for 20 minutes, then add to the pot of beans.
- Continue cooking beans with sauce at a simmer until tender (~1-3 hours). Keep beans covered with liquid during the cooking process, adding water if needed.
- Traditionally, we ladle these beans with their flavorful sauce into bowls, and serve as a “soup”. However, they would also be delicious on a roasted sweet potato topped with your favorite greens, or a DIY burrito bowl with brown rice or quinoa and veggies.

Avó Correia’s Portuguese Beans

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removed. However, what happens when the body feels like it is in a constant state of stress where the ‘threat’ is never removed? (I.e., the continuous headlines, traffic jams, demanding job, demanding family members, etc. are all stress we face daily.) The chronic elevation of cortisol can affect our ability to regulate blood sugar (and increase our risk for type 2 diabetes), weight gain (in this issue, nutrition student Emily Raney addresses the effect of stress on body weight), immune system, digestion, and cardiovascular function.

How can nutrition help minimize the effects of stress? Limit the intake of caffeine. Caffeine is a stimulant that can signal the release of (more) cortisol. Opt for decaffeinated beverages (herbal tea, water, etc.) and be mindful of caffeine in hidden food (like chocolate). In addition, too much caffeine can disrupt and prevent quality sleep. Minimize the intake of alcohol. While alcohol may have an immediate “calming affect” on the body, the long-term effects can be more devastating. Drinking in response to stress can lead to overdrinking and addiction. It can also cause sleep disruptions and irregular blood glucose level—both effects that hinder the body’s ability to handle stress. Stress can heighten the craving for foods that are high in fat and sugar (our comfort foods). Eating sugary foods can provide a temporary burst of energy to the body only to be followed by an energy crash—and this leads to the vicious cycle of wanting to eat more sugar (to maintain that sugar/energy high). Fatty foods can also lead to lethargy and raise the body’s blood cholesterol level that can have a long-term effect on the health of our cardiovascular system.

Instead, reach for more fruits, vegetables, legumes, and whole grains. All these foods are great sources of carbohydrates (by providing a slow release of glucose into the body) that can initiate the brain to produce more serotonin. Serotonin is a neurotransmitter that helps the body relax and provide a sense of calm. Whole grains and legumes also contain fiber that will keep us feeling full longer (and prevent late-night snacking). Fruits and vegetables provide a rich source of the various antioxidants that can help our immune system to counter the effect of stress.

And always remember to maintain a sense of humor, get adequate sleep and nutrition, and love one another.

Feedback? Comments? Questions? Contact us!

We love to hear what you think about our newsletter.

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