

# Nutrition News

Brought to you by the Student Nutrition Association of University of California, Davis. Fall 2009

## The Health Care Reform Bill and Preventative Medicine

By Melissa Cannon

Better nutrition provides an entry point towards better quality of life. Unfortunately, the unique and vital role of healthy eating in health and development has gone widely unrecognized by government officials. Mortality rates linked to preventable causes of death have reached unimaginable numbers. It is estimated that smoking, poor diet, and physical inactivity are responsible for nearly 40% of annual mortalities in the United States. The U.S. Senate and House of Representatives have been warned by the American Dietetic Association (ADA) that health care reform "must focus on prevention," and that "legislation that fails to make prevention the focal point of reform is insufficient."

As the health care reform debate has continued, warnings such as these have poured into Washington. As a result, the House and Senate have finally taken interest.

The House Health Care Reform Proposal provides funding to design and improve "the nation's health through evidence-based clinical and community-based prevention and wellness activities within one year of enactment." The bill calls for identifying "national priorities for prevention and wellness activities."

The current Senate proposal also includes legislation to promote preventative health care. The bill would provide incentives for Medicare beneficiaries for completing "healthy lifestyle programs;" provide annual "wellness visits" for Medicare participants, and increase federal Medicaid funding for states that cover recommended preventative services for enrollees.

Senate Majority Leader Harry Reid recently announced his plans to add the controversial public insurance option to the senate bill, which is intended to control rising costs. However, due to heavy opposition from the right, an opt-out provision is being granted for states that would prefer not to participate. His proposal combines the more conservative Senate Finance Committee's bill with the more liberal Senate Health, Education, Labor, and Pensions Committee bill. The House has also unveiled a bill including a public option that is projected to reduce the federal deficit by \$104 billion. The bill is a combination of three bills approved by three separate House committees.

In upcoming months there will be rigorous debate regarding the content of the Healthcare Reform Bill. While the focus will undeniably be in the public insurance option, it is crucial that preventative programs are a large part of the bill. Although Democrat and Republican opinions conflict over health care reform, the topic of prevention and wellness appears to have bipartisan support. That bipartisanship is critical; while the health care crisis may have solidified Washington's bitter spirit, the opposite is needed to make Americans healthier.

Michelle Obama's widely publicized planting of the White House vegetable garden and her more recent visit to the Washington D.C. farmer's market re-energized discussions around the topic of healthy eating. Her efforts will undoubtedly change public opinion and cause Washington to reconsider legislation. Will the public continue to stay engaged? As the new bill rolls out, Americans will need to stay involved in order to keep easily distracted legislators accountable.

**Make a Difference!**

Contact your Representative by going to \*house.gov and tell him/her your opinion on this important issue. Your opinion does matter!

\*Go to house.gov→at the upper left corner, type in your zip-code (9-digits) under "Find Your Representative" and shoot him/her an email!



# Foods to Fall For...!



By Jacqueline Huff

The nights are getting cooler and the leaves are beginning to brown. Autumn is on its way, and with so many holidays just around the corner, opportunities for cooking are endless. Choosing what to cook, however, can be a daunting task. Never fear! For the solution is at your local supermarket. Cooking in season is one of the best ways to save money and enjoy food at its peak of flavor, and what better time to cook in season than Fall. It is impossible to resist the sweet aroma of shiny red apples or the inviting bright colors of the acorn, spaghetti, and pumpkin squashes. Carrots, leeks, mushrooms, and potatoes are simmered into delicious stews, and you can find hints of pecans, walnuts, and hazelnuts in almost every dessert.

Buying foods within their seasons guarantees they are at their freshest with full flavor. Walnuts, for example, are at their best in October (the middle of their harvest season). Their taste during that time is much milder and more delicate than those that have lingered on the shelves all winter long. They can add a subtle richness to cakes and bread batters or be eaten alone as an excellent post-workout snack. Squash is another food mainly harvested during the months ending in "er." Roasted with carrots and celery, they can add a hearty flavor to any meat dish. On the other hand, their hygroscopic qualities add moistness to cakes and breads when grated into the batter.

Including Autumn foods in your daily cooking regimen can boost the nutrient content of your meals, as well as stretch your dollar. Apples, as I mentioned earlier, are an excellent source of soluble and insoluble fiber which can reduce your risk for arteriosclerosis. Fortunately, they are an affordable choice at your local market or grocery store. Squash, another affordable and healthy option, is very low in sodium and cholesterol. It is also very high in vitamin A and E, two vitamins that are essential to healthy living. And last but not least, nuts in all varieties contain a good amount of protein, as well as polyunsaturated, monounsaturated, and omega-3 fatty acids which can help lower total cholesterol, as well as LDL cholesterol.

Not only does fall mean fair weather and discount shopping, but the opportunity for vast amounts of enriching flavor combinations. So, take advantage of all that fall has to offer. Happy cooking!



## Red Cabbage With Apples



By Alida Peterson

Makes: 4 servings Time: About 45 minutes

This is a visually pleasing as well as tasty side dish. Red cabbage can be substituted with any kind of cabbage, but red is the most rich in anthocyanins and vitamin C!

**INGREDIENTS:**

- 2 tablespoons corn oil
- 2 pounds red cabbage, trimmed and shredded
- 3 cloves
- 1 1/2 pounds Granny Smith or other apples, peeled, cored, and cut into chunks
- Salt and freshly ground black pepper
- 1/2 cup vegetable stock, white wine, apple cider, or water, plus more if needed
- 1 tablespoon freshly squeezed lemon juice, cider or other vinegar to taste

**DIRECTIONS:**

1. Put the oil in a large, deep skillet or saucepan over medium heat. When hot, add the cabbage and the cloves and cook, stirring, until the cabbage becomes quite soft, about 20 minutes; adjust the heat so the cabbage doesn't brown. Add the apples, sprinkle with salt and pepper, and cook, stirring occasionally, for a minute or two.
2. Add the stock, turn the heat to medium-low, and cook, stirring occasionally, until the cabbage is very tender and the apples are also quite soft but not yet falling apart, 10 to 15 minutes. Add more liquid if necessary.
3. Add the lemon juice, taste and adjust the seasoning, discard the cloves and serve.

\*Recipe from the cookbook, [How to Cook Everything Vegetarian: Simple Meatless Recipes for Great Food](#) by Mark Bittman

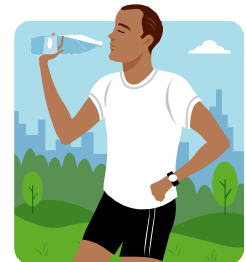
# More on Why We Exercise

By Chris Page



As nutrition students and enthusiasts, most of us have been briefed on the 2005 USDA Dietary Guidelines for Americans and the MyPyramid system. An important new addition is the recommendation to incorporate physical activity. As a minimum guideline, the USDA states that to reduce the risk of chronic disease, one should engage in at least 30 minutes of moderate intensity physical activity on most days of the week. The term “chronic disease” coming from a source such as the USDA and its fleet of scientists, should have us thinking twice about the immediate importance of exercise. However, as busy college students, chronic disease might seem far down on our list of priorities. In the midst of our responsibilities we may believe that optimal nutrition and getting regular exercise can be put on the back burner while we strive for those A's. This is why I wanted to share some specific reasons (and perhaps reminders) why regular, sensible exercise can provide us with immediate benefits while ensuring future health.

I don't know a single UC Davis nutrition student who hasn't experienced the adverse effects of stress. Midterms and finals balanced with work and internships, need I say more? This is where physical activity can seriously help. The American College of Sports Medicine reports that regular cardiovascular exercise results in decreased clinical symptoms of anxiety, tension, and depression. Other positive effects include improved self-esteem and memory function. Cardiovascular exercise has also been shown to help us sleep deeper and longer, as long as it is not performed within a few hours prior. Exercising within three hours of bedtime will raise body temperature, activate muscles, and increase heart rate, all of which will make it harder to fall asleep. Other astounding benefits of cardiovascular exercise include increased HDL, reduced blood pressure, and a reduction in glucose stimulated insulin secretion, all of which will serve us well in the years ahead.



Often overlooked are the equally important benefits of total-body strength training. The American Council on Exercise (ACE) tells us that by applying appropriate resistance stimulus, the musculoskeletal system can positively adapt. These adaptations include increased bone mineral density and connective tissue strength, enhancement of body composition, and increased caloric expenditure, even during sleep. I was also surprised to learn that without proper strength training stimuli, we will lose over one-half pound of muscle every year after age 25. ACE further points out that strength training has been shown to improve glucose metabolism, reduce gastrointestinal transit time, and lower resting blood pressure.

**Feel like there's no time to workout? Try these quick workouts:**

- Push-ups/sit-ups during study breaks
- Keep a dumbbell in your room for a quick muscle workout
- Vacuum your apartment/house
- Take a short walk with a friend :)

Unfortunately, all of these health benefits can be overshadowed by viewing exercise from an aesthetic standpoint. A firmer, leaner body can certainly be a motivating factor in getting regular exercise. The health and fitness industry is flooded with products and recommendations all aimed at our desire to improve outward appearance. Though the trained individual has an increased ability to manage body composition, we should always remind ourselves of the truly vital reasons we eat right and exercise. This will ensure that we forge ahead on our academic journey strong in body and mind, all while getting a head start on preventing chronic disease and the effects of aging.



# Gaining Weight in College – How It Happens and How to Avoid It!

By Reetu Nigam



Although the idea of the “freshman fifteen” and its validity is still under debate, there is no doubt about the fact that weight gain is common during the freshman year. Weight gain is not bad in itself; however, continuous weight gain for a long period of time is not healthy. According to research done at Cornell University's *Division of Nutritional Sciences*, eating extra at dining halls is one of the main factors involved in weight gain in college. It is easy to give in to temptation when seeing the variety of foods, but it is important to look for nutritious dishes and avoid eating extra fattening foods like desserts. What are some of the reasons why college students might gain weight in the first place? How can these factors be identified and dealt with in a way that could improve their health?

First off, eating too much at the dining halls is a major factor in weight gain, so knowing how to eat a balanced meal is imperative. Students should avoid eating seconds of fried foods and other items that are high in calories. They should also try to eat more fruits and vegetable dishes, eat slowly, and only stay in the hall for as long as their meal requires, because extra “social time” at the dining hall usually corresponds to more food, thus extra calorie intake. Skipping meals, though it might seem to reduce weight at first, actually increases the chances of overeating at later meals. To get adequate energy, we need to eat three meals a day with healthy snacks in between, as hard as it may be. Third, students should try not to eat snacks while studying to avoid eating too much. Breaks should be taken to eat nutritious snacks. Breaks during studying should also consist of exercise of any kind and basically anything that gives your mind a short rest. Another important factor of weight gain, particularly after the freshman year, is ordering-in food or getting take-out food a lot. These kinds of foods are very high in fat, and eating them often leads to greater calorie intake, which is not good. Students should look for healthier meals on a menu and avoid getting take-out too frequently.

Lack of exercise is another reason why a lot of college students put on weight. With so much going in terms of school work and social events, getting regular exercise is difficult, but at least 30 minutes of any kind of exercise daily is essential to maintaining a healthy weight. It is especially important for college students to remember to keep hydrated with lots of water because drinking sweetened beverages instead of water means more calories, which could contribute to extra weight gain. In order to stay hydrated, it's recommended to drink a glass of water every one to two hours.

Last but definitely not least, a huge contributing factor to weight gain is alcohol intake. Almost everyone knows that drinking is very common in college, but this is not a good thing because alcoholic beverages have what are called “empty calories”— they provide no nutrients and are ultimately stored as body fat. Thus, students should really try to limit their alcohol intake and recognize their risk of gaining weight depending upon their habits. By following the tips mentioned above to maintain health in an exciting time of new experiences and opportunities, hopefully we can all avoid the “freshman fifteen.”



**\*It's all about eating & drinking sensibly, and exercising!\***

# Novel Approaches to Weight Loss

By Martin Bernardino



What is the best way to lose weight? Because everyone is different, everyone has a different answer to the question of how best to lose weight. What one shouldn't lose sight of is the fact that there are many ways to end up at the finish line. The aim of this article is to outline a number of creative practices used by people to help them achieve their weight loss goals. Do they all work?

Yes. Which technique is the absolute best? The one that ensures long-term adherence for the individual - but that depends on the individual.

## 1) Eating More Frequently

You probably know a few people who eat quite a bit more than 3 square meals daily. The number can be anywhere from 4-6 (& sometimes more). The reason why this technique works so well for some people is that eating more frequently helps with satiety, which has to do with our hunger hormones. This is confirmed by a study by Stote et al. (2007). Eating more frequently helps with better control of ghrelin, a hormone that causes hunger, & peptide YY, a protein that helps to control hunger. For those people who have the resilience, then, eating more frequently is not necessary.

## 2) Intermittent Fasting

Ever heard that skipping on breakfast isn't good for you because your metabolism slows down? You'll be surprised to learn that a study by Zauner et al. (2000) found that resting metabolism actually increases with short-term starvation.

The practice isn't that extreme, as the name would hopefully suggest. The first meal of the day is usually put off until the afternoon. You know how coffee can curb appetite? This is because the caffeine in coffee causes the body to release hormones called catecholamines, which blunt appetite & increase resting energy expenditure. It's actually a stress response (coffee can make some people nervous & jittery, right?) Well, short-term fasting happens to do just the same thing: it releases catecholamines. The caffeine-like effect of the fast makes going without food during the first part of the day more bearable, & many people adapt to it.

In addition to temporarily increasing one's metabolism & blunting appetite, intermittent fasting has another convenient perk to it. Followers of this dieting dogma tend to compress their eating window from the usual 14-16 hours to about 8 hours. They start eating around noon or 1 & stop their feeding at 8 or 9 in the evening. This has the effect of making people feel more full due to having less time to eat the same amount of food. There's no magic going on here - it's just another way to trick your body. Pretty neat.

## 3) Carb Cycling

Some people like to alternate days of absolutely no carbohydrates with moderate-to-high amounts of carbohydrates. Actually, carb depletion followed by carb-ing up has a very real physiological effect on people. Chronically low carb intake causes a drop in such hormones as testosterone, leptin, serotonin, & thyroid hormones while increasing the hormones that make it more difficult for us to diet: AgRP, ghrelin, NPY, & orexin. Yeah, you're not going to be at your best & you're not going to feel your best either. For those who like to go low-carb, an alternative approach such as carb cycling will definitely make the diet more bearable, as regular "carb refeeds" help to revamp the body's hormones.



However, it is important to note the intimacy between carb intake & metabolism. A study by Pasquali et al. (1982) showed that thyroid output was compromised when daily carb intake dropped below 120 grams. Interestingly, this is around the bare minimum of grams of glucose that the brain needs to function.

For those who have hit a wall with their weight loss, maybe a little novelty will get the ball rolling again.

### References:

1) Pasquali R, Parenti M, Mattioli L, Capelli M, Cavazzini G, Baraldi G, Sorrenti G, De Benedetti G, Biso P, Melchionda N. "Effect of dietary carbohydrates during hypocaloric treatment of obesity on peripheral thyroid hormone metabolism." *J Endocrinol Invest.* 1982; 5(1):47-52.

2) Stote K, Baer J, Spears K, Paul D, Harris G, Rumpler W, Strycula P, Najjar S, Ferrucci L, Ingram D, Longo D, Mattson M. "A controlled trial of reduced meal frequency without caloric restriction in healthy, normal-weight, middle-aged adults." *American Journal of Clinical Nutrition*, Vol. 85, No. 4, 981-988, April 2007.

3) Zauner C, Schneeweiss B, Kranz A, Madl C, Ratheiser K, Kramer L, Roth E, Schneider B, Lenz K. "Resting energy expenditure in short-term starvation is increased as a result of an increase in serum norepinephrine." *American Journal of Clinical Nutrition*, Vol. 71, No. 6, 1511-1515, June 2000.

## Need a Smile... Eat Some Omega-3 Fatty Acids

By Rumneet Kullar

Have you been feeling down lately? Do you need a lift-me-upper? Well, instead of turning to that box of chocolates, try munching on some walnuts or grilling some salmon to bring around your happy spirit. It'll have you smiling in no time.

But why eat fish and nuts? Well, recent research in the epidemic nature of depressive disorders has encouraged further studies into dietary habits. In the Western World, there has been a steady decline in the omega-3 series of polyunsaturated fats due to excessive intake of oils rich in omega-6 fatty acids, such as corn, sunflower, and safflower oil, and decreased consumption of foods like salmon, tuna, and walnuts, which are rich in omega-3 fatty acids. Omega-3 fatty acids, such as DHA and EPA, are essential fatty acids that play a major role in brain development and functioning, neurotransmission, and ion-channel flow.

So how does all of that affect your happiness? Omega-3 fatty acids are responsible for neurotransmission production, re-uptake, and binding. One important neurotransmitter that affects our mood level is dopamine. Compelling evidence in a study where rats were fed a diet deficient in omega-3 fatty acids showed a decrease in dopamine production, as well as dopamine receptor binding. A dopamine deficiency can lead to many things including reduced ability to feel pleasure, depression, and low enthusiasm. Now that doesn't sound too fun!

Omega-3 fatty acids are vital to proper brain development and neurotransmission. But where can you find foods rich in DHA and EPA? Coldwater fish, such as tuna, salmon, and halibut, are excellent sources of omega-3 fatty acids. Flaxseeds and walnuts contain a high percentage of omega-3 fatty acids, as well. So next time you are at the grocery store, plan on including fish at least twice into your weekly diet!

**Don't Worry, Just Eat These Omega-3 Fatty Acid Foods!**

Tuna, Salmon, Halibut  
Flaxseeds, Pumpkin Seeds  
Walnuts, Brazil Nuts, Soy Nuts



Are YOU interested in Health and Nutrition?

If you are interested in getting the scoop on current nutritional issues, meeting new people with similar interests, discovering more options for a nutrition major, or getting involved in community service, come to one of our meetings!

Contact us at: [snaucd@gmail.com](mailto:snaucd@gmail.com)

Check us out at: [www.snaucd.50webs.org](http://www.snaucd.50webs.org)



### SNA Newsletter Contributors:

Melissa Cannon

Jacqueline Huff

Alida Peterson

Chris Page

Rumneet Kullar

Reetu Nigam

Martin Bernardino

Aska Hokazono

