Nutrition: Healthcare for Breakfast, Lunch and Dinner

What if I told you there was something you could do for your health that was proven to reduce your risk of HTN, heart attacks, cancer, diabetes, stroke, rheumatic diseases, atopic diseases and cognitive degenerative diseases? What if I went even further and told you this same intervention could also improve your libido, increase your energy and improve mental clarity? Would you wonder how I escaped from “shady acres”? Would you add me to the quackwatch archives? Am I certifiable? Well, guess what? It’s all true, and the last 100 years of in vitro benchwork, animal research, human epidemiology and human prospective studies has proven the value of this intervention. It is quite simply consuming a “plant-based” diet rich in fiber, anti-oxidants, micro nutrients and flavor while avoiding high quantities of fat, salt, processed sugars and flours, meat and dairy products. Crazy isn’t it! Something so simple! But wait, I see you nay-sayers shaking your heads in dis-belief! Being the objective kind of guy I am let me offer you a bit of evidence. We will start big and general and go from there!

According to research from the WHO “Not having a diet sufficient in fruits and vegetables is an independent risk factor for cardiovascular disease, and cancers. The total worldwide attributable mortality due to insufficient fruit and vegetable intake was estimated to be 2.7 million deaths. This translates into 26.6 million disability adjusted life years per year.” The US Dept of Health believes that the “Major causes of morbidity and mortality in the United States are related to poor diet and a sedentary lifestyle.”

(Continued on page 22)
Editor’s Corner

“Let Food Be your Medicine.”
So wrote Hippocrates some 2+ thousand years ago.

Here we are staring wide-eyed at 2008 in just a few weeks and food is as much of an influence on human health and disease as ever before. Famine and deficiency continue to ravage war torn sectors of our world and here in the west the excesses of high calorie, low nutrient foods are creating an equally disastrous health picture.

In this edition of the BULLETin we chose to focus on nutrition as it applies to you, the medical student. From reviews of convenience foods and recipes to bits on anti-oxidative bursts there is a little something for everyone. We hope our offerings will get you thinking of ways you can enhance both your own life and that of the nation/world with nutritional interventions. Wishing you health and happiness!

Seek Health,
Stephan Esser, Editor
sesser@health.usf.edu

Thanks to our Sponsors!

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Nutrition Quiz

1st person to send an email with all 10 correct answers to sesser@health.usf.edu will receive a $40 gift certificate to Metagenics Inc.

1: This “Vitamin” is formed in the body via a complex collaboration of the sun, the kidneys and the liver.

2: Deficiency in this vitamin can result in night blindness.

3: An excess of these fat soluble vitamins can result in “bad things”.

4: Deficiency of this vitamin can result in elevated homocysteine, macrocytic anemia, neuropathies and reversible dementia.

5: This condition is caused by extreme malnutrition and results in excess muscle and tissue wasting without abdominal distention.

6: Diets rich in whole fruits and vegetables have been proven to reduce all cause mortality: True or False

7: Short Answer: Why are “whole-grains” proposed to be healthier than “processed?”

8: Co-Q10 (Ubiquinone) is required in which step of the electron transport chain and is scavenged by what commonly prescribed medication?

9: Dr. Specter commonly eats which cultured milk product for lunch??

10: This little green aquatic plant has been proven to reduce stroke incidence and evolution in animal models by up to 75%.
Fun-Filled Nutritious Tips!

Hey Everyone!

So the Survey went out and the results are in. Here are some HEALTHY TIPS from our very own classmates and comrades. Read, Learn, Apply...and, of course, Enjoy!

Yours Truly,

Lauren Leffler, MSII

Eat in moderation. Not too much, not too little.

--Cathline Etienne, c/o 2008

While we all need some caffeine throughout our day (some more than others), we can all agree that caffeine gives us sporadic bouts of energy that quickly fade away...leaving us sleepy, and wanting more. So, try substituting caffeine intake for naturally decaffeinated green tea, which has lots of antioxidants and gives you a yummy drink to sip on while studying, without the caffeine rollercoaster. My personal favorite is Salada Green Tea (naturally decaffeinated).

--Mary Azer, MS II

If you make an effort to consume an abundance of high fiber foods like legumes and whole grains both your waist and your wallet will be rewarded.

--Mitchell Weinberg, c/o 2008

I pack/bring both breakfast and lunch with me wherever I go. This ensures I don't skip meals, saves a lot of money, and more importantly, I have control over what I'm eating and generally opt for healthy meals.

--Krystyna Kolaczynski, c/o 2008

I start everyday off with a very healthy breakfast (water, oatmeal, vitamin, banana). I try to eat healthy snacks throughout the day (raisins, apple sauce, granola bars, etc.) I also box 2-3 times a week and ride my bike to class 2 days a week.

--Zachary Wilson, c/o 2011

I find that I often eat too many carbs (I eat a lot of rice and pasta) and not enough fruits and vegetables. With every meal I cook, I try to add a little spinach, grape and strawberry salad on the side of the plate. I also have an apple or nectarine with every meal. I have a wicked sweet tooth, so another trick is that I always drink water with meals and try to avoid juice and soda. That way, I can treat myself to ice cream or a cupcake afterwards.

--Lauren Hanna, MSII

Salads are WAY more than lettuce. Try adding fruits (like strawberries or blueberries) and a yummy cheese (like feta or gorgonzola or blue). Also, chickpeas and yellow peppers give your salad that additional "pretty" factor too.

MMMMMMM...ENJOY!

--Angela Goodwin, MSII

Bring your lunch to school. When I pack my lunch I am more health-conscious. Instead of buying a soda at school I pack juice or water and instead of grabbing pizza or a burger I pack a sandwich. It really cuts down on my caloric intake each day.

--Courtney Smiley, c/o 2011

1. Eat carrots instead of potato chips with lunch, they are more nutritious, less fat and you have to expend energy to chew them.
2. If you like ice cream get frozen yogurt instead...tastes the same.....less fat....fun bacteria to clean your intestines.

--Mark Collins, c/o 2008

I eat everything from Kashi, their cereal, snack bars, and frozen pizza. It's great!

--Alex Ferman, c/o 2009
More Fun-Filled Nutritious Tips!

I try to prepare my meals... a couple of days in advance. I keep things simple. One portion protein (the size of the palm of my hand), usually some sort of lean meat (chicken, turkey, tuna, etc. One portion complex carbohydrate (the size of my clenched fist), usually a healthy, low glycemic index carb like whole wheat pasta, brown rice etc. Finally, a portion of vegetable with high fiber and low sugar content. I eat three meals and two to three snacks every day. The snacks are usually ready-to-drink protein shakes with a piece of fruit, usually banana, apple etc. As far as drinking I mainly drink water all day. One multivitamin per day and that's about it. The biggest thing for me is to never go hungry or find myself unprepared because I crave junk foods.

Loretta Due, c/o 2011

Raisins or bananas on your (healthy) cereal in the morning are great additions, unless you have a disturbing propensity for bananas like I do. In that case it might be good to switch to another breakfast food - like banana yogurt...yea, there we go!

Bishoy Samuel, c/o 2009

I have found that keeping protein/granola/Nutri-Grain bars in my bag helps me avoid excessive hunger and subsequent hospital food indulgences (i.e. doughnuts, candy, M&Ms, etc).

Charlie Glover, c/o 2008

Every time I order water I squeeze a lemon wedge into it. It gives you about half of your vitamin C for the day to keep you well.

Kim Willeit, c/o 2011

Don't eat jelly beans for dinner—It's just a bad idea.

Mindy Shaver, c/o 2010

To avoid eating all your lunch during those 10 minute breaks between lectures, I learned that it's so much healthier to bring grapes, apple, or any fruit for these breaks, and stash your lunch in youristo lab desk or locker, so you're not tempted to eat all of it during the breaks.

Sadi Sales, c/o 2011

Recent studies have been released denouncing the effects of supplementary vitamins & anti-oxidants. Faults in the supplements include is poor absorption of pill form & synthetic versions have different chemical structures compared to naturally occurring compounds, thus altering their biologic functions. A good way to get your vitamins instead of popping a Flintstones chewable every morning is to pile high a variety of vegetables when you order a sandwich. A good way to judge variety is by color & flavor. Veggies don't have to be green and bland. But watch out for the salad dressings. Salads at many fast food spots actually have more calories than the burgers, and most of it is fat, all from the salad dressing.

Drew Carey, c/o 2010

Leave your wallet at home! Instead of buying lunch everyday, make your own! Not only does this allow you to control what is going into your body, you will be saving $$$ to boot!

Switch your soda can for a tea bag. Many types of tea contain as much, if not more, caffeine than soda does (Black tea --> 5mg caffeine/ounce; cola --> 375mg/ounce).

Tresa Lombardi, c/o 2011

DON'T DEPREE YOURSELF OF THE FOODS YOU LOVE, JUST REMEMBER THAT MODERATION IS KEY!
LAURA THORNSBERRY, C/O 2011
Lighten up and get a grip!

By Garrison Keillor

An Excerpt:

The philosopher of cheerful purpose was Emerson, and for some reason my generation preferred the puritanical Thoreau, a sorehead and loner whose clunky line about marching to your own drummer has found its way into a million graduation speeches. Thoreau tried to make a virtue out of lack of rhythm. He said that the mass of men lead lives of quiet desperation. OK, but how did he know? He didn't talk to that many people. He wrote elegantly about independence and forgot to thank his mom for doing his laundry.

Emerson was a mover and shaker. He said, "Every great and commanding moment in the annals of the world is the triumph of some enthusiasm ... this is the one remedy for all ills, the panacea of nature. We must be lovers and at once the impossible becomes possible." He said this while he was out on the road plying his trade as a lecturer, peddling his books, earning the money he would use to buy the land for Thoreau to build his little cabin on and pay Thoreau's fine and get him out of jail. Oh well. Never mind.

These autumn days are so golden, if there was a whole month of them, your mailman would feel triumphant enthusiasm and start his own dance company called Deliverance and the woman who cleans your teeth would write haiku --Into the gorge of Enamel and spit I thrust My slim silver pick.-- and you would have to tell them how much you liked their work, even though you didn't, but bravo for them. Nothing is so cheerful as the urge to commit art. The purpose of all great art is to give courage and thereby cheer us, just as the purpose of education is fundamentally cheerful -- to draw us out of gloomy solitude and into a conversation with other scholars.

Lighten up. Get a grip. Leave morose silence to teenagers; it's too dramatic for you and me. We have passed the great test of a republic, to survive the most incompetent leadership, and now we can anticipate a new era, one with no Bushes. As Emerson said, "This time, like all times, is a very good one, if we but know what to do with it ... Finish each day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow is a new day; begin it well and serenely and with too high a spirit to be encumbered with your old nonsense."

In other words, cheer up.

Michelle Valdes MSII
Rate Your Diet— “9!”
Does USF COM teach enough nutrition? Probably not.
Made Popeye strong? Spinach!
Avoid wi/liver & kidney disease? ETOH, salty & fatty foods
Your barrier to a “10” diet? It would be NO fun!
Frozen Conundrums  by Elizabeth Kim, MS I

Admit it, we’ve all been there before: coming home late in the evening, too hungry and too exhausted to cook or go out to eat. Even the five minutes to microwave that TV dinner gnaws away at your patience as you peer into the microwave, hoping the radiation won’t damage your cornea.

Well, there will always be times like this, but the question is—is there such thing as a truly “healthy” frozen dinner that might be palatable? Or would finding the Holy Grail be easier?

Here I have explored the pros and cons of certain frozen dinners marketed towards the health-conscious population. You can find all these at your local Super Wal-Mart or Publix, so it does not require an extra trip to a specialized food store.

<table>
<thead>
<tr>
<th>Frozen Dinner Brand</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Choice</td>
<td>- Lots of advertisement and media publicity, including an interactive healthy living website with recipes and dieting tools.</td>
<td>- Given the vast number of their meals on the market, there isn’t much innovation in the entrée selections.</td>
</tr>
<tr>
<td>Featured: Lemon Pepper Fish</td>
<td>310 Cal, Total Fat-7%, Sodium-29%, Cholesterol-7%</td>
<td>- Meals contain preservatives, flavor enhancers, and emulsifiers, amongst a host of other chemicals. Vitamins have also been added back in. Then again, most processed foods nowadays contain ingredients similar to these.</td>
</tr>
<tr>
<td>Kashi</td>
<td>- One of the few filling healthy meals! The Kashi® 7 Whole Grains and Sesame Pilaf in their dinners is high in fiber and protein, which lead to a lasting fullness.</td>
<td>- Small portion size, although the more filling “Complete Selections” line contains an extra side dish and a dessert.</td>
</tr>
<tr>
<td>Featured: Lime Cilantro Shrimp</td>
<td>250 Calories, Total Fat-12%, Cholesterol-23%, Sodium-29%</td>
<td>- Can be aesthetically unpleasing, as it looks like pig slop in a tray. But you’re not dining at Mise en Place, either.</td>
</tr>
<tr>
<td>Lean Cuisine</td>
<td>- Seemingly endless variety of choices, from macaroni and cheese to paninis grilled to perfection in your microwave.</td>
<td>- You’ll still be hungry even after licking up the sauce. I like to think of them as snacks rather than meals, unless I supplement them with a fruit or some yogurt. Once again, they do have “Dinnertime Selects” which offer more substantial portions.</td>
</tr>
<tr>
<td>Featured: Butternut Squash Ravioli</td>
<td>350 Calories, Total Fat-12%, Cholesterol-12%, Sodium-29%</td>
<td>- They claim to be without artificial flavors, but many varieties have hidden flavor enhancers termed “yeast extract” that are structurally and functionally the same as MSG.</td>
</tr>
<tr>
<td>Amy’s</td>
<td>- Great taste! Authentic-tasting ethnic foods like Mexican, Indian, and Asian are also available.</td>
<td>- The ingredients list is quite hefty, and not all of them are recognizable.</td>
</tr>
<tr>
<td>Featured: Cheese Enchilada Dinner</td>
<td>350 Calories, Total Fat-23%, Cholesterol-10%, Sodium-28%</td>
<td>- It will cost you quite a bit more than other brands, as they can run around $3.50-$5.00.</td>
</tr>
</tbody>
</table>


310 Cal, Total Fat-7%, Sodium-29%, Cholesterol-7%
350 Calories, Total Fat-12%, Cholesterol-12%, Sodium-29%
350 Calories, Total Fat-23%, Cholesterol-10%, Sodium-28%
310 Cal, Total Fat-7%, Sodium-29%, Cholesterol-7%
BULLish Book Reviews!

“Critical Condition: How Healthcare in America Became Big Business and Bad Medicine.”

Written by Pulitzer Prize winning investigative journalists Donald Bartlett and James Steele, this book is a must read. No, that’s too soft. Let me say that if you don’t read this book, then your education as a student, a physician and an American citizen is incomplete. In this chilling, hard hitting, intensely researched book the authors contextualize the state of American medicine as it sits poised to enter the 2nd decade of the 21st century. Their readable and relatable stories of patient abuses, physician underpayment and healthcare corruption are numbing. Detailed exposes of patients driven to insolvency, a booming pharmaceutical industry and drooping national health ratings are sufficient to spur even the most apathetic reader to consider action. If you have ever wondered how the system got to where it is, and how you can influence it’s future, this is the book for you. Editor’s rating is 5/5’s. Read it, get inspired and get ready to take back medicine as it was meant to be practiced.

Random factoids garnered from the book:

- 100 million Americans have inadequate or no medical insurance.
- From 1980-2002 per capita health care spending increased by 410%.
- From 1980-2002 pharmaceutical spending increased by 1,250% ($12 billion to $162 billion).
- In 2002 Pfizer reported 28.4% return on sales which was 2.5 times more then GE, 9 times more then Walmart and 32 times more then GM.
- Cancer mortality in 1950 194/100,000 in 2001 196/100,000

-Drew Carrey MSII

Rate Your Diet— “6”

Does USF COM teach enough nutrition? Yes.
Made Popeye strong? A high protein diet.
Avoid wi/liver & kidney disease? High protein, high fat.
Your barrier to a “10” diet? Time for shopping, cooking!

Mean Genes From Sex to Money to Food: Taming our Primal Instincts by Terry Burnham and Jay Phelan.

“Why do we want-and do-so many things that are bad for us? We vow to lose those extra five pounds, put more money in the bank and mend neglected relationships, but our attempts often end in failure.” So reads the inside cover of Mean Genes; a short, sassy jaunt into the world of evolutionary biology. With playful stories, well-researched studies and some mind-bending conclusions, the authors propose fresh, insightful arguments for how our ancestral genes direct everything from choosing a spouse to ordering out. Move over Freud and take a seat Darwin, as the pages heat up with discussions of sex, infidelity, food, greed, altruism and business success. Whether you agree with evolution as a premise or not, this is an inherently readable book that will leave you analyzing your daily routines, checking your anatomic symmetry and understanding why you “fell off the wagon” with your latest exercise routine. Editor’s rating is 3/5 δ’s. Buy it at the used book store, read it and pass it on to someone facing the same “evolutionary” pressures!
Who's the king of red nutrition?
Watermelon vs. Tomato

At last, the argument can be settled! Thanks to the USDA's National Nutrient Database at [http://www.nal.usda.gov/fnic/foodcomp/search](http://www.nal.usda.gov/fnic/foodcomp/search) there will be “peace in the garden.” If you prefer to mix it up and consider the nutrition of smoked ham vs Maine Lobster...guess what, it’s all there! This is a cool website for random perusing and for future nutrition reference and research! Check it out!

<table>
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<tr>
<th></th>
<th>Whole Raw Watermelon</th>
<th>Red Ripe Tomato</th>
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<tbody>
<tr>
<td>Water (g)</td>
<td>91.45</td>
<td>94.5</td>
</tr>
<tr>
<td>Energy (kcal)</td>
<td>30</td>
<td>18.0</td>
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<tr>
<td></td>
<td>(kj)</td>
<td>127</td>
</tr>
<tr>
<td>Protein (g)</td>
<td>0.61</td>
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</tr>
<tr>
<td>Fat (g)</td>
<td>0.15</td>
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<tr>
<td>Fiber (g)</td>
<td>0.4</td>
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<tr>
<td>Sugars (g)</td>
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<tr>
<td>Ca (mg)</td>
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<td>Fe (mg)</td>
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<td>Mg (mg)</td>
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<td>P (mg)</td>
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<td>Cu (mg)</td>
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<td>Mn (mg)</td>
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<td>0.114</td>
</tr>
<tr>
<td>Fe (mcg)</td>
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<td>Se (mcg)</td>
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<td>Vit C (mg)</td>
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<td>Thiamin (mg)</td>
<td>0.033</td>
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<tr>
<td>Riboflavin (mg)</td>
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<td>Niacin (mg)</td>
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<td>Pantothenic Acid (mg)</td>
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<td>Vit. B-6 (mg)</td>
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<td>Folate (mg)</td>
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<td>Vit. B-12 (mcg)</td>
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</tr>
<tr>
<td>Vit. A (IU)</td>
<td>569</td>
<td>833</td>
</tr>
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<td>Vit E (mg)</td>
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<td>Vit. K (mcg)</td>
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<td>B-carotene (mcg)</td>
<td>303</td>
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<tr>
<td>Lycopene (mcg)</td>
<td><strong>4532</strong></td>
<td>2573</td>
</tr>
<tr>
<td>Lutein/Zeaxanthin (mcg)</td>
<td>8</td>
<td>123</td>
</tr>
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Volume 3 BULL Quiz!

Questions derived from information in this edition of the BULLetin! 1st person to email sesser@health.usf.edu with all 10 correct answers wins 2 free Jamba Juice smoothies and a J&J refill container!

1: What % of responding 4th yr med-students at USF COM think the 2nd yr of med.school is toughest on a romantic relationship?

2: What is the “active ingredient” in chili peppers?

3: Which little-known medical specialty stole Kathleen Davenport’s heart? 💌

4: Which highlighted “Healthy TV Dinner” was most filling?

5: Which fruit has more lycopene: tomato or watermelon?

6: How many people in America are either under-insured or without insurance?

7: According to 3rd year Whitney Lappola what is the #1 anti-oxidant rich food out there?

8: Crazy-brilliant 4th yr Mark Collins recommends eating these instead of potato chips?

9: Which gender had greater representation in the relationship quiz: males or females?

10: Which book (reviewed in this edition) highlights the growing field of evolutionary psychology as applied to daily life?
Your friendly neighborhood anti-oxidants?

By Whitney Lapolla

Blueberry concentrate, green tea extract, guava skin… The list of purported antioxidants is a mile long. If the media mentioned beetle feces as the newest and greatest of health-promoting wonder-antioxidants, the American public would swallow them without hesitation like fish on a proverbial hook of anti-aging promises and longer life. Unfortunately the benefits of such dietary factors are difficult to prove and, to date, there is no substantial evidence that supplements actively serve any protective function at all. On the contrary, in high doses, many of these supplements may be harmful.

To know more about the way antioxidants work, we must first understand their nemeses, the free radicals. Free radicals are natural by-products of the body’s normal processes but additional factors such as smoking and stress may increase their quantity. These compounds are highly reactive unstable chemical particles with an unpaired electron. A free radical persists only a brief period of time before the unpaired electron stabilizes itself by stealing another electron from a nearby molecule. The neighbor molecule then itself becomes an unstable free radical with an unpaired electron. A chain reaction ensues causing tissue destruction and attack of proteins, genetic material and cell membranes. The damage from free radicals contributes to aging in general in addition to many disorders such as cancer and heart disease. At the other end of the spectrum, free radicals are also shown to be beneficial in many situations. They participate in the eradication of viruses and bacteria, clotting of blood and detoxification of drugs and other harmful substances. Thus, free radicals do both harm and good. Health benefits are achieved with balance.

The role of antioxidant is that of a scavenger. Antioxidants bind to free radicals neutralizing the particles and preventing the electron cascade from continuing. In theory, antioxidants are preventing cancer, heart disease, strokes and cataracts. In practice, this may be partially true but there is some increasing evidence that high doses of antioxidants such as Vitamin C, E and beta carotene supplements may actually have pro-oxidant effects. For example, one 2000 study reported a higher risk for cancer in male smokers who took multivitamins plus a separate A, C or E supplement.

The bottom line is that nobody has proven one way or the other whether or not antioxidants are beneficial. In moderation particularly within whole food sources, they probably couldn’t hurt and may help. The best advice we can possibly give is to recommend dark colored fresh fruits and vegetables which contain balanced amounts of antioxidant vitamins and nutrients.

Top 20 Whole Food sources of antioxidants (ordered from greatest to least antioxidant potential)

1. small red bean
2. wild blueberry
3. red dried kidney bean
4. pinto bean
5. blueberry-cultivated
6. cranberry
7. artichoke-cooked
8. blackberry
9. dried prune
10. raspberry
11. strawberry
12. red delicious apple
13. granny smith apple
14. pecans
15. sweet cherry
16. black plum
17. russet cooked potato
18. black bean-dried
19. plum
20. gala apple

Antioxidants commonly thought to be beneficial in disease processes:

1. Alzheimer’s disease: Vitamin E, B vitamins, darkly colored fruits & veggies
2. Infectious disease: Vitamin C, Lycopene (tomatoes), ginseng and garlic
3. Asthma: Vitamin C, flavonoids (apples & red wine)
4. Eye disorders: Zinc, Vitamin C & E, carotenoids
5. Skin disorders & wrinkles: Vitamin C & E, green tea, ginger, silymarin (artichoke), garlic
6. Osteoporosis: Vitamin D, K, B12, C, E, soy products, flavonoids
7. Menstrual disorders: Vitamin B6, B1, E
“Scalpel….knife back……..pick-ups……..kellys……..hot sauce…”  Wait a second one of these doesn’t belong.  Or does it?  In ongoing studies in Denmark, Boston and California, clinicians are testing the ability of “hot sauce” to mediate pain responses.

Chili peppers and other related painfully tasty foods get there “hotness” from a colorless, odorless, hydrophilic substance called Capsaicin.  If you ever bit into a fresh chili you remember that burning, stinging pain that tore through your oral cavity, leaving you numb and sweaty.  Well that little lesson in pain was thanks to years of ingenious design by plants who developed capsaicin as a protective response to roaming Paleolithic vegetarians. (okay and 4-legged herbivores).

Chili peppers have been recognized for their pain-mediating potential for centuries, and heat-inducing capsaicin creams are now a drugstore staple for aching muscles. But today the “spice is hot” because of research showing that capsaicin targets key pain-sensing cells in a unique way.

Nerve cells that sense a type of long-term throbbing pain bear a receptor, or gate, called TRPV1. Capsaicin binds to that receptor and opens it to enter only those pain fibers — and not other nerves responsible for other kinds of pain or other functions such as movement.

These C neurons also sense heat; thus capsaicin's burn. But when TRPV1 opens, it lets extra calcium inside the cells until the nerves become overloaded and shut down. That's the numbness!

In a pilot U.S. study of 50 knee replacements, the half intra-operatively treated with capsaicin used less morphine in the 48 hours after surgery and reported less pain for two weeks. Ongoing studies are testing larger doses in more patients to see if the effect is real.

Specialists are watching the capsaicin research because it promises a one-time dose that works inside the wound, not body-wide, and wouldn’t tether patients to an IV when they’re starting physical therapy. So next time you schedule surgery don’t forget the “hot sauce.”  It makes everything better!

**Thure Caire MSII**

Rate Your Diet— “6”

Does USF COM teach enough nutrition?  No, but they try Made Popeye strong? Hypertrophied forearms. Avoid w/liver & kidney disease?  McDonald’s Your barrier to a “10” diet?  Time and money.

**Reesha Kahn MSI**

Rate Your Diet— “9”

Does USF COM teach enough nutrition?  No Made Popeye strong?  The woman he was with. Avoid w/liver & kidney disease?  ETOH, too much tea Your barrier to a “10” diet?  Dessert, cake!
Cigarette ads in medical journals?

By: Serggio Lanata MSIII

Today we are barraged with a never ending onslaught of media advertising encouraging us to take up new habits, buy high priced items and consume “new-to nature” molecules. But how often do we separate the fantasy from the truth; the capitalist savvy from the legitimate evidence? As we make strides into the future we must always recognize the wisdom to be gained from past mistakes. Some things never change!

In the 1940’s Philip Morris launched a series of advertisements stating the following: “The news that Philip Morris cigarettes are less irritating to the nose and throat is not a claim, it is a result of a difference in manufacture, proved advantageous over and over again” (see 1942 advertisement, below). These ads referred to two scientific publications to support their claims; both published in the journal Laryngoscope, 1935 and 1937 respectively. Interestingly, the same person, Dr. Fredrick B. Flinn, from the department of Physiology at Cornell University, was the sole author of both publications. Considering that Philip Morris relied on these publications to support a huge advertisement campaign that affected the health of thousands of Americans, they deserve a closer analysis.

Both publications referred to the same experimental study; of course. The opening sentence of the 1935 publication is practically an admission of the lack of scientific merit of the author’s work: “The effect of cigarettes on the health of the smoker has been discussed from many angles and generally the evidence depends on the attitude of the person making the observations.” Such an assertion might be appropriate from a psychologist or a sociologist interested in philosophy, but not from a serious scientist interested in deciphering if cigarette smoking is harmful to human health.

The article continued, “So many factors enter into the picture that it is almost impossible to eliminate the personal element in such a study. The symptoms which one may be studying may have been the result of some other exposure rather than that of smoking.”

In addition, the experimental study performed by Dr. Flinn was weak, to say the least. The randomization process he used was amusing. He mentioned that he “realized at the very beginning [of the study] that [he was] dealing with human beings, which are the hardest experimenational animals on which to obtain reliable data,” primarily because of the “psychological factor” contributed by each patient, and due to the “mental attitude” of the doctor taking the observations. This is partially correct, but in order to rule out the “mental attitude” component that could skew experimental results, Dr. Flinn decided that the best way to randomize his samples was to “ask a high type of medical man [doctor] to select 10 men [doctors], whose reputations were such that no criticism could arise as to their ethical standing and observations.” Each doctor then selected ten patients of his choosing for the study and each patient was assigned to one of two groups. The articles do not explain how the groups were divided.

In effect, since its beginning this study was flawed due to its faulty randomization process and innate bias. The study also suffered other shortcomings.

The study compared the congestion levels in the pharynx, larynx and on the tongue; cough incidence, and heart palpitation of both groups of patients. One group smoked a glycerine-
containing cigarette (which, according to the author, is the causative agent of cigarette-smoking-related inflammation) and the other smoked a diethylene glycol-containing cigarette (which supposedly does not cause severe inflammation). No tables or graphs are shown, and no statistical analyses of the (hidden) results were done. Still, the author concludes, "The results show rather definitely that the combustion products of glycerine are more irritating to the throat than the combustion products of diethylene glycol."

Regardless of the weakness of the author’s conclusions, the study’s results do not support the claims made in any of the advertisements presented in this paper (note that each of these advertisements relied solely on these two publications to support their claims). First, no mention of Phillip Morris cigarettes, or of any other specific brand, is made in either publication; in fact, Dr. Flinn used his own tobacco preparations to conduct the experiments. Neither publication supports the statements that "3 out of 4 cases of smokers cough cleared on changing to Philip Morris," as is indicated in the 1945 advertisement, for example. And even if we considered the results of Dr. Flinn’s study to be scientifically sound, the Philip Morris advertisements did not reveal that Philip Morris cigarettes contain no glycerine.

This is clearly not the type of experimental research that should influence consumer’s health-related choices. Unfortunately, with the results of this single investigation, Phillip Morris managed to successfully mislead the American people into believing that their cigarettes were safer and/or that smoking cigarettes was not as dangerous as many people thought.

Around 60 years have passed since this misleading tobacco advertisement campaign, and the fact that about 90% of lung cancers occur in active smokers (or those who stopped recently) is proof of the tremendous "success" of tobacco advertisement campaigns. Indeed, bronchogenic carcinoma is the number one cause of cancer-related deaths in industrialized countries. Sadly, these statistics are also a living testament of what happens when a business uses a person’s health as means to reach its financial goals.

**Editor’s Note:** Is big tobacco alone in its use of fraudulent advertising? Fast-forward to 2003-2004 when federal fraud settlements included: Pfizer $49 million (Lipitor), Glaxo-Smith Kline $88 million (Paxil), Bayer $257 million (Adelet), Astra Zeneca $355 million (Zoladex), Pfizer $427 million (Neurontin).

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**John Emerson MSI**

Rate Your Diet—“8”

Does USF COM teach enough nutrition? Don’t know. Only had 1 block

Made Popeye strong? Spinach obviously - it had to be.

Avoid wi/liver & kidney disease? Stay away from the booze!

Your barrier to a “10” diet? Expensive as H@LL and hard to find!
2 Healthy Recipes

from The McDougall Quick and Easy Cookbook.

Dr. McDougall MD is the founder and medical director of a ten-day, residential lifestyle change program located at a resort in Santa Rosa, CA. For 17+ years he has been running programs with remarkable success. To learn just how effective his interventions have been go to http://www.drmcdougall.com Yet one more option for your future career as a physician!

Cuban Potatoes:

Serves: 8  
Prep Time: 15 mins  
Cooking: 70 mins

2 lbs small red potatoes  1/2 cup raisins  
3 14.5 oz cans chopped tomatoes  1 tbsp. Soy sauce  
1 medium onion chopped  2 tsp minced garlic  
1 red/green bell pepper chopped  1 tsp. Ground cumin  
3/4 cup chopped green olives  1 tsp. Ground oregano

Preheat Oven to 375 degrees

Cut potatoes in quarters, place in pot with water to cover, cook for 10 minutes, drain, keep 1/2 cup of cooking water

Combine remaining ingredients in a bowl, place potatoes in a casserole dish with reserved water. Pour remaining mixture over the potatoes and mix. Cover and bake for 60 minutes. Then Enjoy!

Tips: Make a batch on the weekend and then feast all week!

Tofu Burgers:

Servings: 9  
Prep Time: 15 mins  
Cooking: 30 mins.

2 10.5 ounce packages lite firm silken tofu  
1.5 tbsp. Mustard  
2.5 cups quick-cooking oatmeal  
1.5 tbsp. Fav. Hot/Brbq sauce  
1.5 tbsp. Worcestershire sauce

Preheat oven to 350 degrees

Place tofu in a large bowl and mash well. Str in oatmeal and seasonings. Mix well. Form into patties and place on a non stick baking sheet. Bake for 20 minutes, turn over and bake for 10 minutes. Incredibly simple and yummy!

Tips: For more flavor mix in finely chopped veggies, grated carrots, cooked beans, sunflower seeds etc.

The BEST EVER: Combine the 2 into 1 incredibly filling and yummy toasty hot sandwich!
My path to PM&R!

By Kathleen Davenport MSIV

“Physical Medicine and Rehabilitation???” I asked myself, staring at my MSII LCE assignment. “Is that something you go to medical school for?” my friend asked over my shoulder. I shrugged, unsure what I would be able to glean from a specialty that was never even mentioned throughout four years of medical school. Not knowing what to expect, I embarked on a journey which has led me to apply for a residency position in this very specialty.

If you’re anything like I was, you may have never even heard of Physical Medicine and Rehabilitation, also known as “PM&R,” “Physiatry” and “Rehabilitation Medicine.” But what exactly is PM&R? First let me tell you a few things it is NOT. It is not pediatrics or psychiatry, even though these noble professions may rhyme with “physiatry” (I get this a lot). It is also not physical therapy (I also get this a lot). We work closely with physical therapist, occupation therapist, speech therapists and neuropsychologists, but physiatrists do not perform the actual therapy. We do not do physical manipulation or any other technique that is in the realm and training of therapists. With this being said, there are always exceptions to any rule. Many D.O.s choose to incorporate manipulation into their practices, and many physiatrists are also licensed in alternative medicine specialties, such as acupuncture.

PM&R is the specialty for both inpatient and outpatient management of neuromusculoskeletal disorders. Instead of performing the therapies, we manage which therapies a patient requires, work with the therapy team to monitor progress, make changes as needed to the treatment plan, and cover the medical management of this patient population. Rehab is a team approach to medical care.

Inpatient rehab primarily involves patients with spinal cord injury and traumatic brain injury. Most rehab programs will have specialized services devoted to the above. Other patients requiring rehab include post-stroke, post-orthopedic surgery, pain management (usually weaning off opioids), amputee, deconditioning, and multiple sclerosis. In this setting, patients are required to participate in rehab a minimum of 3 hours per day. This means that they must be medically stable. Your patients will likely be with you for weeks to months, so you get to know them and their families extremely well. You also get to see them improve over this time. We work with a team including speech therapy, physical therapy, respiratory therapy (vent patients), occupational therapy, recreational therapy, social work, psychology, and nursing. The rehab nurses are seriously the best. The team members are generally excellent to work with and have usually been working in rehab for an eternity.

A day in the life of an inpatient rehab resident:
~ Check with nursing for any issues overnight (because you’re only taking home call)
~ Round on your patients (issues to ask: pain, bowel and bladder care, wound care, adjustment, tolerating therapies, progress in therapies, ADLs, mobility, placement)
~ Write notes
~ Round with attending
~ Possibly go to lecture, possibly admit a new patient, possibly D/C a patient, etc
~ Team meeting - talk about patient progress in all areas and address problems; most places have a weekly meeting with entire team and patient +/- family as well.
~ Go home

Outpatient rehab is basically your typical outpatient clinic. Your patients will either come from the community setting or will be following up from an inpatient rehab service. You manage their function, find out how they are doing, and learn if there are any changes that need to be made to their regimen to assure maximum functionality. You DO NOT do their primary care management (i.e. you are not managing their HTN or cold).

If you like procedures, but perhaps not quite enough to become a surgeon, there are many minor procedures available in rehab. Physiatrists are extremely well trained in nerve conduction studies (NCS) and EMGs. We are required to complete over 200
NCS/EMGs for licensure and are exceedingly capable in these techniques. We are also trained in somatic evoked potentials (SEPs). In addition, rehab physicians are very well trained in pain management. A fellowship in pain medicine is available if you are interested in more invasive pain management techniques (which tends to be extremely lucrative and therefore extremely competitive).

There is a wide array of employment opportunities from academia and research (the US government just appropriated 15 million dollars toward brain injury research) to private practice to workers compensation to hospital consults. I have certainly not covered all the opportunities of this broad specialty, but I hope to give you a flavor of what PM&R has to offer!

Physical Medicine and Rehabilitation at a Glance

**Years:** 4 (intern year + 3 years PM&R, some programs include the intern year)

**Size:** small; about 50-60 programs in US; a large program would be 10 residents per class

**Competitive?** As a specialty no, but fellowships and top programs remain competitive

**Lifestyle:** I’d like to challenge any other specialty to beat it. Can you say “home call?”

**Fellowships:** Pain, Musculoskeletal, Sports, Spine/Spinal Cord Injury, Traumatic Brain Injury, Stroke, Multiple Sclerosis/Neuromuscular disease, Pediatrics

I chose rehab because:

Neuromusculoskeletal medicine
You really know your patients
Your patients generally make huge efforts to get better
While patients likely never get back to baseline, they almost always improve significantly
Team approach to medicine
Rehab nurses are the BEST to work with!
The equipment you prescribe your patients is really cool
Opportunity for alternative medicine (but by no means required)
Tons of funding and opportunities for research

Lifestyle

Do not choose rehab if you are afraid of:

Patients with disabilities
Patients with depression/adjustment disorder
Bowel/bladder management
Wound management
Ventilators
Wheelchairs
Explaining your specialty on a daily basis!

Those are the basics of PM&R as I know them right now. I am happy to answer any questions regarding the residency (kdavenpo@health.usf.edu). Also check out http://www.aapmr.org for more info. Think Rehab!
My first experience with the misinformation, inaccuracies, half-truths and outright lies the general population receive about nutrition came very early in my life in the form of Popeye cartoons. It is clear now that Max Fleischer was in the pay of the Spinach Syndicate, pushing propaganda to pump up the sales of the vile concoction known as canned spinach. Much to my dismay and disillusionment not only was canned spinach vile, it in no way worked as the insta-roid that the cartoons had promised. My muscles did not bulge out, I didn’t seem any faster and I certainly was unable to thrash the neighborhood bully. All I got was a nasty taste in my mouth.

Eggs have been a source of contention my entire life. It seems every few years the verdict on eggs changes, I’ve seen them be declared as killers in a shell, to being ok, to just the whites being ok, back to bad, then back to good. Do the nutritionists want me to have a scrambled brain instead of scrambled eggs? Not to mention the rise in my blood pressure from the delightful local news teasers “The eggs in your fridge may be killing you, tune in at 11:00 to find out.”

Certainly Popeye cartoons and various reports on the news can be considered less than authoritative, even to a layman such as me. What do I do though and who do I listen to when even M.D.’s are disagreeing about what I should eat. Dr. Atkins tells me I should stop eating my carbohydrate diet and gorge on red meat, cardiologists tell me that’s a quick trip to clogged artery city. A quick search on amazon.com for “diet m.d.” and “nutrition m.d.” gives 3 pages of results each including something called “The Bible Diet”. All with those magic authoritative letters M.D. after the authors’ name. Even the food pyramid has undergone recent change and that comes from the government, the most infallible institution ever.

My point, if I have one and I’m not sure I do, is to comedically illustrate the flood of information the general public will get from various authorities, pseudo-authorities and industry groups as well as what they will receive from yourself as a future doctor about nutrition. Not only is there a very entrenched junk-food industry bombarding your patients with their information, your patients are also getting mixed messages from figures they will view as knowledgeable and authoritative. How then are you to effect change in a patient when this information may cause them to be skeptical about what you are telling them? Beyond the fact that I love my deep-fried Twinkies and changing behaviors is hard already, when it seems conclusions can’t be reached about such things as eggs or the Atkins diet why should I believe what you tell me in your office? To that I have no answers nor can I even attempt a humorous one. I might believe you because I’ve built up a relationship with you and you’ve earned my trust, but other than that I don’t have any answers!

Nishan Shah MSII

Rate Your Diet—“3—4”

Does USF COM teach enough nutrition? Absolutely not!

Made Popeye strong? It was his passion for Olive..

Avoid wi/liver & kidney disease? High salt, fat, ETOH

Your barrier to a “10” diet? School
Objective: To gather preliminary data on romantic relationships in 4th year medical students at USF COM.: including the average length of time in a relationship, frequency of dissolution and chronologic risk-factors and associations.

Methods: We electronically delivered a 6-point relationship quiz (RLQ-016) to the 4th year medical students by way of the USF Health server. Results were recorded anonymously and a follow-up email to remind students of a 1-week deadline was sent prior to the end of data collection.

Results: Of a total of 111 possible 4th year students, 23 or 20% of the total responded. Of these 70% were female and 30% were male. 87% were in a monogamous relationship and 13% were single. The mean length of the relationships reported was 46.74 months, with the median being 42 months and no absolute mode determined. During medical school, 6 reported getting married and 0 divorced (several did report upcoming nuptials). When asked which year of medical school was most challenging for their relationships, 46% said 3rd yr, 46% said 2nd year and 8% thought 1st year was most challenging. Of respondents, only 2 admitted to having children during medical school.

Discussion: This preliminary study prompts many new questions. Although the total number of respondents was only 20% of the total, it is interesting to note that 70% were women and 87% were presently in a relationship. Such figures prompt the questions: Do women place greater value on their relationships than men, and are individuals in a relationship more likely to speak about their “romances” than single persons? Furthermore, the average relationship reported by respondents was 46.7 months in length. This finding suggests that relationships which have begun prior to medical school may have a chronologic advantage (greater “lasting power”).

Conclusion: Post Graduate Medical Education is a stressful period for both a student and his/her significant other. Relationships which began prior to this stressful period appear to have a greater chance of lasting through it. The two most challenging years of study for a relationship appear to be 2nd and 3rd year. Further studies are required to determine gender specific bias and the effect size of uncontrolled variables.

How to Make it Last!
Words of Relationship Wisdom from your 4th year peers!

Respondents in our Relationship Quiz also offered bits of advice which we are compiling to help you “Keep the home fires burning!!”

“Include your significant other in what you are learning and in your other relationships.”

“Being married during third year brought more balance to my life and helped me realize that I did not need to study all the time” Develop a common interest/activity that you both enjoy. Read together and pray together.”

“I would say that honesty is probably the most important component of my relationship. Medical school has been great, but like anything else it has had its ups and downs. I think being honest with my partner about my feelings helped keep our relationship strong.”

“…..put the relationships that are important to you first. It may mean your CV is a little lighter at first or you’re not as involved as you once were, but you will still get into a residency program and you will still find time for research/volunteering/etc. and most importantly you will still have your partner/spouse standing by your side.”

“Try not to be selfish and understand that these years may be as difficult on your partner as they are on you!”

(Continued on page 20)
“A. Choose your partner wisely :)  B. Make sure they know they are your #1 priority, even if you can’t always show it.  C. Have date night... a sacred night once a week only devoted to each other (studying allowed if you MUST - aka - shelf...)  D. Include them in your med school friends (pick your friends wisely)  E. Keep as many extracurricular activities going as possible (work out together, etc)”

Remember, med school is part of what we do; not who we are.”

“What worked for us was date night. Taking a few hours of your week for dinner and a walk on the beach is NOT going to kill your class rank (however, personal experience has shown copious EtOH consumption does)”

“We take a Sabbath every week...as we usually have Monday tests ...my Sabbath day is often Saturday. I make sure we have 24 hours minimum of complete devoted time. This not only keeps us both mentally sane but it shows my spouse that no matter how busy I feel that I am putting our relationship first. We also will either have tea time or dinner together to talk about our days. We make this a priority, even though some days it is simply not possible. We rarely miss more than once a week though!”

“I have had several prospective medical students ask if I recommend getting married before med school?” Having a spouse during med school was a wonderful source of constancy, support and stability. It was very nice not to have to worry about that aspect of my life while everything else was so busy. We call the degree “Our MD” and it has certainly given us a feeling of joint accomplishment.”

“2nd year is the most challenging as far as stress/time school. 4th year challenging based on different issues. You have to answer serious questions like: relationship vs. career. If you choose relationship is it marriage/engagement time. If not then why couples match if you know one is ready to get married, but should you throw away a relationship that has been a good thing. Something you know is hard to find.”

“Communication and honesty- best policy. “

Toughest year? “3rd year with regards to making time to spend with each other. And currently "couples" matching while he's doing a very competitive early match specialty. Always make time for one another, and to make sure your significant other improves you as a person. If that's not happening - break it off a good time before 4th year so to avoid the question of couples matching or have where you choose to go for residency depend on the person you are in a relationship with.”

“Always make time for one another and do fun things that you enjoyed prior to medical school, even if you don’t think you have time because of an exam, etc. Even just an hour of listening to music together, taking a walk or cooking/eating dinner together can help make both you and your spouse’s day better and your relationship stronger. “

“Communicate, it is the bridge to intimacy”

As to Children, “… my son was 1 when I started. I had to sacrifice quite a bit of study time to try to balance things. It was well worth it though - I became much more efficient at studying, and didn't lose touch with my family.”

“Keep your work and your private life as separate as possible. Try to leave your school stresses at the door of the library/hospital/clinic.”

“The most challenging year was 2nd year as we had our first child and our first USMLE exam in close proximity to one another.

I had 2 kids during medical school. If I didn't have such an amazing wife ...I would not have been able to deal with having kids. Relationships are like investments….you must "put in" your time and energy to make it work and reap the rewards that a healthy relationship offers. You must make the relationship a priority not to be trumped by study or the many other things that eat up your time in medical school. It is easy to say all this but doing it is a whole different ball game. PS: In medical school the ideal time to have children is in the 4th year......NOT 1st, 2nd or 3rd year. If you are planning a family keep this in mind.”

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A Bittersweet Symphony: Justifying Chocolate Consumption

Elizabeth Kim, MS I

As a Spanish proverb says, "Las cosas claras y el chocolate espeso." [Ideas should be clear and chocolate thick.] Interestingly enough, recent scientific evidence has made the same conclusion that chocolate should be eaten thick, minimally processed, and dark. And this makes sense because the higher the percent cacao there is, the higher the extraction of beneficial polyphenols, flavonoids, and antioxidants.

In the July 2007 publication of *JAMA*, results of a randomized-controlled trial showed that small, habitual doses of dark chocolate were effective in decreasing blood pressure in a population of otherwise-untreated prehypertensive or stage I hypertensive patients. There was no benefit seen in the polyphenol-free white chocolate treatment participants.

Studies on chocolate and hypertension show anywhere from a 2.9/1.9 to 11.9/8.5 mmHg average decrease in systolic and diastolic blood pressures after dark chocolate “treatment,” with pressure decreases that depend on the amount of chocolate consumed (6.3g and 100g, respectively).

So how do cocoa polyphenols lower blood pressure? The mechanism deals with the increased formation of nitric oxide (NO), a potent vasodilator. Although the caffeine in chocolate is often predicted to increase blood pressure, the vasodilatory effects of NO seem to be more substantial.

Yet of course, all things need to be in moderation, and chocolate consumption is not necessarily the easiest of things to control. Due to weight and caloric considerations, small, daily doses of chocolate (30 calories, or the size of a Hershey’s kiss) are always recommended over engorging the fundraising box of chocolates you were intending to sell. There is obviously a decreased health benefit when chocolate consumption leads to obesity.

For you curious milk chocolate lovers out there, chocolate when combined with milk does not have seem to have a pronounced effect due to the decreased concentration of polyphenols and additional cocoa processing involved. But don’t you worry. Myself once a die-hard milk choco fan, I have learned to embrace the acquired taste of bittersweet chocolate for its purported health benefits, lowered blood pressure being just one benefit out of so many. Of course, my favorite benefit of all: it tastes heavenly and it’s nice to justify what I’ve been doing all along!

According to the CDC “A healthy diet and lifestyle are the best weapons you have to fight heart disease.” The American Cancer Society states: “The key recommendation …-- that individuals should choose a predominantly plant-based diet that includes a variety of vegetables, fruits, and grains -- is consistent with the American Cancer Society’s guidelines on diet, nutrition and cancer prevention... “ As for the US Gov’s most recent Dietary Guidelines for Americans (2005) it affirms that, “Compared with the many people who consume a dietary pattern with only small amounts of fruits and vegetables, those who eat more generous amounts as part of a healthful diet are likely to have reduced risk of chronic diseases, including stroke and perhaps other cardiovascular diseases, type 2 diabetes, and cancers.” With every major government and NFP organization in unanimous agreement about the power of plant-based nutrition to impact health do I even need to provide more details?

The real question is why are so few people eating fruits and veggies? (for starters perhaps we should start by asking why around 90% of social functions on campus at USF Health include nothing but pizza and soda?) According to the CDC’s 2005 Behavioral Risk Factor Surveillance System (BRFSS), only 32.6% of adults consumed fruit two or more times per day and 27.2% ate vegetables three or more times per day (the gov’s goals being at least 75% and 50% respectively). Is it lack of education? Studies show that college-graduates have the highest rates of fruit and veggie consumption. Is it cost? People who earn more then $50K per year have higher rates of fruit and vegetable consumption. Is it lack of support from the mainstream medical industry? You only need to look around to answer that question. How many of you have ever seen a “nutritional questionnaire” included in a pt’s work-up? Sadly enough even the NIH funded Moffitt Cancer Center doesn’t have a universal nutritional intake form for it’s patients. How can patients believe that good nutrition is important if physicians whom they trust and respect never even bring up the topic? But why don’t doctor’s talk about the specifics of good nutrition? Researchers at Emory University COPH were interested in just that question and after completing a nationwide survey of students, they found that med-students with good eating habits, who attended a university that put value on preventive healthcare were more likely to advocate healthy eating to pts. The perceived relevance of nutrition counseling by US medical students declined throughout medical school, and thus students infrequently counseled their patients about nutrition.” What happens during medical school that makes students believe less in nutritional interventions? Why is it that the most globally important health intervention is also the most frequently forgotten?

I contend that members of the medical community and “physicians” in particular fail to offer valuable “nutrition” advise to their patients for two primary reasons. The first is lack of education. There is no “nutrition” class in our training. No “therapeutic lifestyle” coursework. The rare suggestion that food might influence disease is left to discussions of alcoholic steatohepatitis and B12 deficiency in atopic gastritis and long-term vegans. How can physicians even consider aggressive dietary modifications as legitimate interventions if they never read about them in their formative years? The unfocused suggestion that “eating well and exercising more” is healthy is trite and impotent. When will we learn the details of how plant based diets have been shown to reduce colorectal cancer recurrence and prostate cancer progression and to reverse advanced CAD? The literature is there but why aren’t we learning it in med-school? When will we learn to write prescriptions for healthful living? “Modeling” during medical school is another reason why this
cycle is perpetuated. If your “role-model” (attendings and residents) doesn’t integrate these findings into practice then you are far less likely to do so. Secondly, I believe that physicians can not with good conscience recommend significant lifestyle interventions to their patients unless they are willing to do likewise. The idea of an obese physician with a cigar dangling from his lips telling patients to lose weight and quit smoking is sufficiently preposterous to make my point. The need for personal change to precede clinical intervention in another’s life is very challenging for most physicians. It reminds me of the proverb that before removing a splinter in a neighbor’s eye we should remove the “plank” from our own. Since physicians are born and raised in the same society as their pts, it is nonsensical to think they would have some higher degree of discipline and fortitude when it comes to individual change.

So I hypothesize that due to lack of sufficient education from childhood through medical school, along with inadequate “role-modeling” at the post-graduate level and in conjunction with a limited support system to facilitate and empower personal change; physicians fail to address the single most powerful health intervention known to medical science—our diets!

But let me ever be the optimist and say, once we have recognized the problem we can improve things. We will soon be the new crop of physicians for the 21st century. Will we transform our own lives, positively impact the educational system, educate and empower our future patients and reduce the burden of chronic disease in our world? Or will we merely maintain the status quo and focus purely on high tech advances, cutting edge surgery and business as usual? What will you choose?

If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health!

Hippocrates

Resources

http://www.cancer.org/docroot/MED/content/MED_2_1X_American_Cancer_Society_guidelines_on_diet_and_cancer_prevention.asp
http://www.cdc.gov/dhsp/announcements/american_heart_month.htm
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5610a2.htm
Conroy et al. Impact of preventive medicine and nutrition curriculum for medical students.
**Wish I’D Said That!**

*Turning the ordinary into the Extraordinary*

Bits of advice from Mark Sanborn’s national bestseller *The Fred Factor*

-“One way or another you make a difference—it is impossible to go through the day and be neutral”

-“To know more, notice more.”

-At the end of every day ask yourself: *What kind of difference did you make today?*

-Keys: Be real, Be interested—not JUST interesting, be a better listener, be empathetic, be honest

-Be relational……not transactional (put the focus on building a relationship, then on the transaction of services or the like that will occur)

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**Bits and Pieces . . .**

“*the only way to keep your health is to eat what you don’t want, drink what you don’t like, and do what you’d druther not.*”

- Following the Equator  *Mark Twain*

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" The doctor of the future will give no medicine, but will instruct his patient in the care of the human frame, in diet and in the cause and prevention of disease……There were never so many able, active minds at work on the problems of diseases as now, and all their discoveries are tending to the simple truth — that you can't improve on nature."

- Thomas Alva Edison

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**Weblinks of Interest:**

**FDA Nutrition Information**
http://www.cfsan.fda.gov/~dms/wh-nutr.html

**USDA Nutrition Center:**

**Micronutrient research Center:**
http://lpi.oregonstate.edu/infocenter

**CDC Info on nutrition:**
http://www.fruitsandveggiesmatter.gov

**CDC Division on Nutrition and Activity:**
http://www.cdc.gov/nccdphp/dnpa/index.htm

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**Shan Hann MSII**

Rate Your Diet—“2”

Does USF COM teach enough nutrition? Ya

Made Popeye strong? Spinach!

Avoid w/liver & kidney disease? Fatty foot, ETOH

Your barrier to a “10” diet? I’m lazy!